ANRC-138.00

Arkansas Natural Resources Commission The Arkansas Water Plan Title 24

(Effective December 15, 2015)

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Arkansas Natural Resources Commission The Arkansas Water Plan Title 24

(Effective xxx 2015)

Subtitle I. The Arkansas Water Plan

Section 2401.1 The Arkansas Water Plan.

The Arkansas Natural Resources Commission will prepare, develop, formulate, and engage in a comprehensive program for the orderly development and management of the state's water and related land resources, to be referred to as the "Arkansas Water Plan." The first edition of the Arkansas Water Plan was published by the Commission in 1975 and updated in 1990 and 2015.

Section 2401.2 Mission of the Arkansas Water Plan.

The Arkansas Water Plan is the state's comprehensive planning process for the conservation, development, and protection of the state's water resources, with a goal of long-term sustainable use for the health, well-being, and environmental and economic benefit of the state.

- Section 2401.3 Enabling and pertinent legislation.
- A. Ark. Code Ann. §15-20-201 et seq., General Provisions (describing the Arkansas Natural Resources Commission).
 - B. Ark. Code Ann. §15-22-201 et seg., Allocation and Use of Water.
 - C. Ark. Code Ann. §15-22-301 et seq., Determination of Water Use Requirements.
 - D. Ark. Code Ann. §15-22-501 et seq., Water Development Projects Generally.
- E. Ark. Code Ann. §15-22-901 et seq., Arkansas Groundwater Protection and Management Act.
 - F. Ark. Code Ann. §15-23-401 et seq., Arkansas River Compact.
 - G. Ark. Code Ann. §15-23-501 et seq., Red River Compact.
 - H. Ark. Code Ann. §15-24-101 et seq., Flood Control.
- I. Ark. Code Ann. §25-15-201 et seq., Arkansas Administrative Procedure Act.

Section 2401.4 Commission adoption of the Arkansas Water Plan.

- A. The Arkansas Natural Resources Commission shall publish an Arkansas Water Plan, which shall from time to time be revised, updated, and amended as new information, projects, and developments shall occur.
- B. Through the planning process, the Commission will identify priority water issues and adopt policy approaches for the orderly development and management of the state's water and related land resources.

- C. Priority issues, goals, and recommendations are effective upon adoption by the Commission pursuant to the rulemaking provisions of the Arkansas Administrative Procedure Act.

 D. Technical reports supporting the planning process are not binding policy or rule.

 Section 2401.5 Publishing the Arkansas Water Plan.

 The Commission will maintain an electronic version of the planning documents and supporting technical studies available to all interested state agencies, departments, commissions, and individuals.

 Section 2401.6 Ongoing supporting technical studies.

 The Arkansas Natural Resources Commission will gather, compile, and analyze information on both the use of water in this state and the needs of the citizens of this state and will make the information available to officials of this state and to its citizens.
- A. "Agricultural Irrigation Science Technical Workgroup" means a voluntary group of technical experts and stakeholders who will assist the commission in ensuring the best possible data and science is used to support agricultural water policy decisions. The Commission's Executive Director will empanel the members.

Section 2401.7 Definitions.

As used in these rules:

- B. "Arkansas Method" means the methodology used to determine instream flow needs for fisheries when calculating the amount of water that is legally available for nonriparian use. The Arkansas method divides a year into three seasons based on physical processes that occur in the stream and critical life cycle stages of fish and other aquatic organisms. The mean monthly flow (MMF) of a stream is determined from the gauging network and records. From November to March, the Arkansas Method specifies that 60% of MMF is required; from April to June, 70% of MMF is needed, and from July to October, 50% of MMF is necessary. (Steve Filipek, William E. Keith, and John Giese, *The Status of the Instream Flow Issue in Arkansas*, Proceedings of Arkansas Academy of Science, 1987, 43-48).
- <u>C. "Conjunctive Water Management" means use of surface water and groundwater in combination to improve water availability and reliability.</u>
- D. "Water Resources Planning Region" means one of five regions of the state with similar hydrology, economy, and geography. See map attached as Appendix A-1.
- E. "Integrated Irrigation Water Conservation Practices" means irrigation practices that meet crop production needs while conserving surface and groundwater, energy, and cost, and reducing sediment and nutrient runoff.

- F. "Irrigation Water Use Efficiency" means the overall efficiency of obtaining, distributing, and using water for crop production.
- G. "Nutrient management plan" means a documented record of how nutrients will be managed on a nutrient management unit prepared in accordance with United States Department of Agriculture Natural Resources Conservation Service conservation practice standards for Arkansas to guide and assist landowners and operators in the use of fertilizers, litter, sewage sludges, compost and other nutrient sources for soil fertility and protection of the waters within the state.
- H. "Priority issues " means water resources issues identified during the planning process and selected by the Commission as having long-term, statewide, application requiring further work to ensure water availability and quality.
- I. "Sustainable yield" is development and use of ground water resources in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences. (William M. Alley & Stanley A. Leake, *The journey from safe yield to sustainability*, 42 Ground Water 1, 12-16).
- J. "Target efficiency" is a goal for irrigation water use formulated to conserve surface and groundwater, save energy, and lower crop production cost.
 - K. "Technical reports" are any documents or data helpful to the planning process.

Subtitle II. Issues and Recommendations

Section 2402.1 Conjunctive water management and groundwater decline.

- A. Arkansas must reduce groundwater withdrawals and move toward sustainable groundwater use, provide sustainable yield protection for the Sparta aquifer, and ensure water is available to satisfy irrigation uses through conjunctive water management.
- B. Since September 30, 2006, owners of wells extending into sustaining aquifers, including the Sparta Aquifer, have been required to install metering devices to their wells. The Commission will seek opportunities to purchase, install, and read meters on selected alluvial wells.
- C. The Commission will develop and implement conjunctive water management strategies based on storing surface water during months when excess water is available, for use during the summer irrigation months when excess surface water is not available. Groundwater use would supplement surface water use, rather than being the primary irrigation water source.

Section 2402.2	Tax incentives	<u>s and credits</u>	s for	<u>integrat</u>	ted
irrigation water cons	ervation.			-	

- A. Tax incentives and credits are needed to encourage the implementation and management of integrated irrigation water conservation practices.
- B. The Commission will determine the current irrigation water use efficiency for various crops and subwatersheds in the East Arkansas Region and establish a goal or target efficiency to be achieved for integrated irrigation water management and conservation practices.
- C. The Commission will evaluate the effectiveness of the existing tax credits and incentives and, based on this assessment, consider recommending that the General Assembly:
 - 1. Increase the percentage of the total project cost available for tax credits based on applicants improving their irrigation water use efficiency compared with the goal or target efficiency,
 - 2. Extend the period for claiming tax credits for implementing water conservation practices, and
- 3. Increase the annual cap on tax credits so additional tax credits can be claimed.

 D. The Commission will track the acreage on which water conservation practices have been implemented.

Section 2402.3 Funding water resources development projects.

- A. State-issued general obligation bonds are vital to finance and refinance the development of water; waste disposal; pollution control, abatement, and prevention; drainage, irrigation, flood control, wetlands, and aquatic resources projects to serve the citizens of the State of Arkansas.
- B. As current bond authorization is exhausted, the Commission will pursue authorization of an additional \$300 million under the Water, Waste Disposal, and Pollution Abatement Facilities General Obligation Bond Program.
- C. Additional bond authorization will be requested as needed to finance and refinance the development of water resources projects.
- D. The Commission will seek the authority to merge water or sewer systems where necessary in order to bring them into economic viability.

Section 2402.4 Infrastructure condition.

- A. Public water and wastewater infrastructure is failing and in need of repair and replacement throughout Arkansas.
- B. Public entities operating water and wastewater infrastructure or flood control and drainage projects should develop sustainability plans that evaluate:
 - 1. Current infrastructure status and historical trends in status,
 - 2. Needed infrastructure repairs, replacement, and maintenance and associated schedules,
 - 3. Federal and state programs available to support infrastructure projects, and
 - 4. Contingency plans, including the potential for regionalization or privatization (including the usage of private water wells, septic systems, or decentralized systems), if the utilities are assessed to be unsustainable.
- C. The Commission may initiate receivership proceedings for public water and wastewater providers that have defaulted on loans.

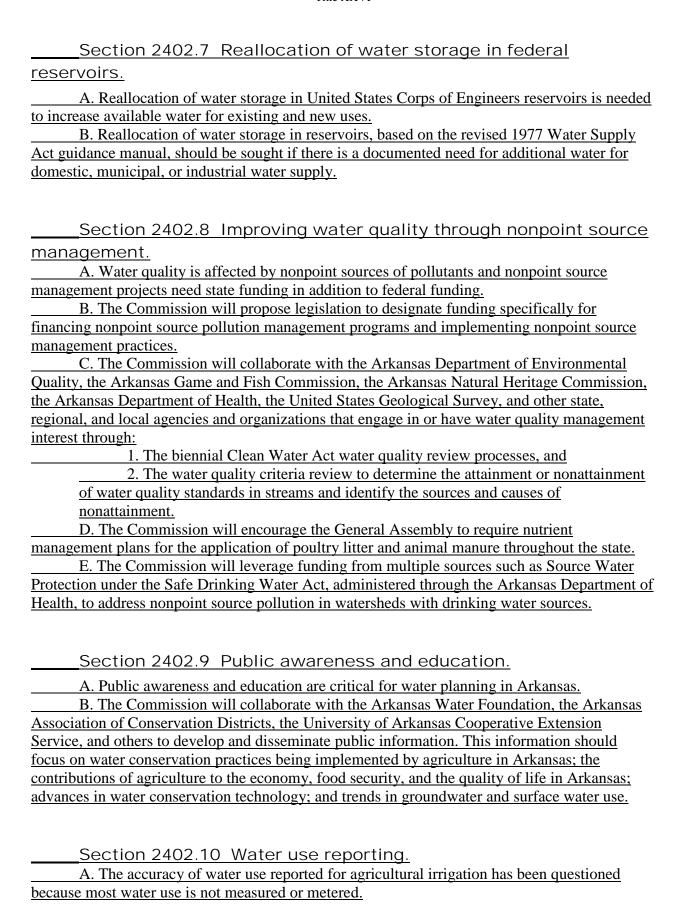
- D. The Commission will develop training programs for utility boards of directors on sustainability planning and how these plans relate to the operation of their facilities and infrastructure.
- E. The Commission may provide lower loan rates to any utility that submits a sustainability plan with its financing application.

Section 2402.5 Excess water for nonriparian withdrawal and use.

- A. The statutory definition of excess water should be based on sound science.
- B. A deficit of legally available water has been identified within certain basins in the East Arkansas Water Resource Planning Region. The General Assembly should consider raising the 25 percent limitation for permitting excess surface water within these basins for nonriparian transfer upon completion of scientific studies in East Arkansas validating the need for an increase and confirming water is seasonally available to protect and sustain instream, riparian, and other uses specified in state law.
- C. Similar scientific analyses should be conducted in the remaining planning regions in this order: South-central, West-central, North, and Southwest. These studies will be conducted in collaboration with the Arkansas Game and Fish Commission, the Arkansas Department of Environmental Quality, the Arkansas Department of Health, and other state, regional and local agencies with constitutional and statutory water management duties.
- D. Continue to use the Arkansas Method in estimating the proportion of total available water needed to satisfy fish and wildlife flow needs in estimating excess water for nonriparian withdrawals and transfers.
- E. Through adaptive management, the Commission will evaluate and assess alternative methods for estimating fish and wildlife flows, or other instream needs and uses, as more accurate, scientifically reviewed, and defensible methods become available.
- F. The Commission will engage stakeholders in the planning regions through an open and transparent process as scientific studies are conducted and as better scientific approaches become available and are proposed for use.

Section 2402.6 Drought response.

- A. Planning for allocation during drought is needed before droughts occur.
- B. The Commission will develop a coordinated drought contingency response network among state, regional and local agencies with constitutional and statutory water management duties, federal agencies; drinking water utilities, organizations, and institutions; and the private sector for alerting the public about impending droughts, sharing consistent messages and information, and providing information on voluntary conservation measures to reduce water use.
- C. The Commission will seek financing and ensure stream gaging networks throughout the state are adequate to provide streamflow information needed to make informed decisions about impending or advancing droughts statewide and within each planning region.



- B. The Commission will form an Agricultural Irrigation Science Technical Workgroup to:
 - 1. Review the water use reporting process for agricultural irrigation,
 - 2. Modify the ranges for accepted water use by crop type, if needed for greater accuracy,
 - 3. Evaluate various quality assurance criteria and approaches for confirming crop type and acreage,
 - 4. Assess the adequacy of the surface water and groundwater monitoring network in providing confirmation of the aggregate or cumulative withdrawal of groundwater and surface water for agricultural irrigation.
 - 5. Propose incentives for agricultural users to report water use more accurately, and
 - 6. Periodically review advances in technology for measuring and estimating water use and water use reporting and provide recommendations to the Commission on incorporating these advances in water use reporting programs.
- C. The Commission will continue and improve awareness and education programs, in conjunction with conservation districts, to explain and promote the water use reporting program currently in place and any future improvements.

Subtitle III. Continuous Planning

Section 2403.1 Continuous planning.

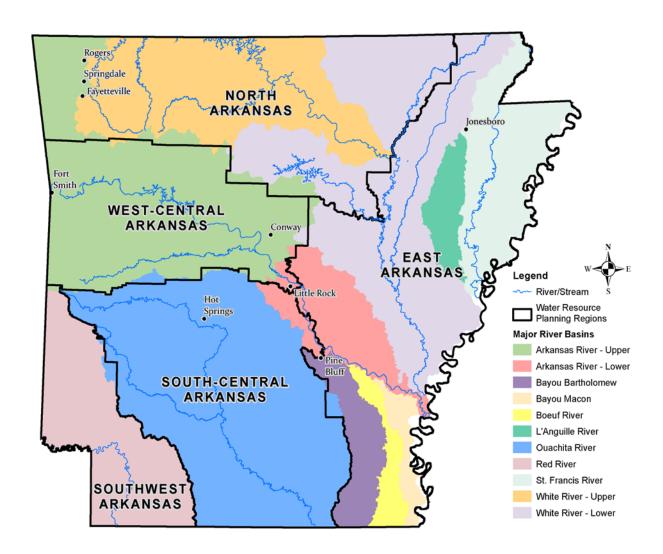
The Arkansas Water Plan shall be altered, amended, or repealed to the extent necessary for the proper administration of the state's water resources.

- Section 2403.2 Implementation teams and workgroups.
- A. The Executive Director of the Commission will empanel issue-specific implementation teams and workgroups recommended in the Arkansas Water Plan.
- B. Participation in workgroups empaneled by the Commission will be open to all interested parties acting in good faith, with the Commission retaining its statutory responsibility to make final policy determinations.
 - Section 2403.3 Updating the Arkansas Water Plan.
- A. The Commission will compile water demand and supply data continuously and improve its collection and analysis methods.
- B. Gap analyses for non-population-driven uses, such as agriculture, industry, and thermoelectric power generation, will be conducted on approximately five-year cycles, or when the Commission determines that emerging issues warrant more frequent study.
- C. After release of the decennial United States Census, the Commission will update population-based water demand, supply, and gap analyses for public water and wastewater services. The Commission may determine that conditions require a more frequent interval.
- D. Regionally, the Commission will foster efforts to involve the public in water studies, revised estimates of water demand and availability, gap analysis, and planning.

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- E. The Commission will continue its Water Plan education and awareness efforts through all practical means, including presentations, participation in water conferences, social media and internet tools, and publications.
 - F. Full public involvement is necessary for successful implementation and future updates.

Appendix
Water Resources Planning Regions



QUESTIONNAIRE FOR FILING PROPOSED RULES AND REGULATIONS WITH THE ARKANSAS LEGISLATIVE COUNCIL AND JOINT INTERIM COMMITTEE

DEPARTMENT/AGENCY	Arkansas Natural Resources Commission				
DIVISION	Water Management Division				
DIVISION DIRECTOR	Edward Swaim				
CONTACT PERSON	Crystal Phelps				
ADDRESS	101 E. Capitol, Ste 350, Little Rock, AR 72201				
PHONE NO. (501) 682-3 NAME OF PRESENTER A MEETING					
PRESENTER E-MAIL cr	rystal.phelps@arkansas.gov				
	INSTRUCTIONS				
 A. Please make copies of this form for future use. B. Please answer each question completely using layman terms. You may use additional sheets, if necessary. C. If you have a method of indexing your rules, please give the proposed citation after "Short Title of this Rule" below. D. Submit two (2) copies of this questionnaire and financial impact statement attached to the front of two (2) copies of the proposed rule and required documents. Mail or deliver to: Donna K. Davis Administrative Rules Review Section Arkansas Legislative Council Bureau of Legislative Research One Capitol Mall, 5th Floor Little Rock, AR 72201 					

1. What is the short title of t rule?	this The Arkansas Water Plan				
2. What is the subject of the rule?					
3. Is this rule required to cor	mply with a federal statute, rule, or regulation? Yes \(\square\) No \(\square\)				
If yes, please provide the federal rule, regulation, and/or statute citation.					
4. Was this rule filed under a Procedure Act? If yes, what is the effective rule?	the emergency provisions of the Administrative Yes No No				
When does the emergency expire?	y rule				

Will this emergency rule be promulgated under the perr provisions of the Administrative Procedure Act?	nanent	Yes 🗌	No 🗌			
5. Is this a new rule? Yes No In If yes, please provide a brief summary explaining the 503, the Arkansas Natural Resources Commission is charge orderly development and management of the state's water and water	ed with the duty of	f developing a	program for the			
regulations as it may adopt." Although the first Arkansas V	Water Plan was pu	blished in 197	5 and later			
updated in 1990, this is the first time that the Commission I	nas committed the	Plan to rule.	The Commission			
intends these rules to be available to anyone interested in kn						
been publicly vetted and adopted as the Plan. These rules a						
Arkansas Water Plan, provide definitions important to the I	Plan, and finally, p	provide a map	of Arkansas's			
Water Resources Planning Regions.						
Does this repeal an existing rule? Yes \(\subseteq \text{No } \int \) If yes, a copy of the repealed rule is to be included with replaced with a new rule, please provide a summary of does. \(\subseteq \subseteq \)	your completed q					
Is this an amendment to an existing rule? Yes No No No No No rule? Yes near the changes in the existing rule and a summary of the substantive changes. Note: The summary should explain what the amendment does, and the mark-up copy should be clearly labeled "mark-up."						
6. Cite the state law that grants the authority for this proportion. § 15-22-503	osed rule? If codifi	ed, please giv	e the Arkansas			
7. What is the purpose of this proposed rule? Why is it ne Arkansas citizens with more information about the water pl for water management established through a publicly available.	lanning process, in	cluding the re	commendations			
8. Please provide the address where this rule is publicly acrequired by Arkansas Code § 25-19-108(b). The rule with http://anrc.ark.org/rules/proposed-rules/ .	ccessible in electro ill be available at	onic form via t	he Internet as			
9. Will a public hearing be held on this proposed rule? Y	'es ⊠ No □					
If yes, please complete the following: We will hold seven hearings throughout the state. Please see attachment identified as "Hearing Date: List."						
Time:						
Place:						
1100.						

10. When does the public comment period expire for permanent promulgation? (Must provide a date.)

September 3, 2015	
11. What is the proposed	effective date of this proposed rule? (Must provide a date.)
The rule will be effective	e on December 15, 2015.
12. Do you expect this ru If yes, please explain.	section 2402.8 (D) asserts that the Commission will encourage the General Assembly to require nutrient managmeent plans for the application of poultry litter and animal manure throughout the State. Some agricultural groups, especially those with representatives in areas that have not yet been declared nutrient surplus areas will be resistant to this recommendation.

13. Please give the names of persons, groups, or organizations that you expect to comment on these rules? Please provide their position (for or against) if known.

Many organizations, political subdivisions, and individuals participated in the process of revising the Arkansas Water Plan and made their comments known throughout the process. Other than comments on 2402.8(D) above, we don't know that anyone will comment during the rulemaking process.

FINANCIAL IMPACT STATEMENT

PLEASE ANSWER ALL QUESTIONS COMPLETELY

DEPARTMENT DIVISION		IMENT	Arkansas Natural Resources Commission					
		N	Water Management					
PE	RSON	COMPLE	TING THIS S	STATEMENT	Crystal Phelps			
TE	LEPH	IONE NO.	(501) 682- 3905	FAX NO. <u>(50</u> 2	1) 682-3991 EMAIL: cryst	al.phelps@	arkansas.gov	
					ase complete the following and proposed rules.	Financial I	mpact	
SE	IORT	TITLE OF	THIS RULE	Arkansas Wat	er Plan			
1.	Does	this propose	ed, amended, o	or repealed rule ha	ave a financial impact?	Yes 🖂	No 🗌	
2.	Is the rule based on the best reasonably obtainable scientific, technical, economic, or other evidence and information available concerning the need for, consequences of, and alternatives to the rule? Yes No						No 🗌	
3.				ves to this rule, w rule considered?	ras this rule determined by	Yes 🖂	No 🗌	
	If an	agency is pr	oposing a mor	e costly rule, plea	ase state the following:			
	(a) How the additional benefits of the more costly rule justify its additional cost;							
	(b) The reason for adoption of the more costly rule;							
	(c) Whether the more costly rule is based on the interests of public health, safety, or welfare, a if so, please explain; and;				welfare, and			
(d) Whether the reason is within the scope of the agency's statutory authority; and if so, explain.				so, please				
4.	If the	purpose of t	his rule is to im	plement a federal	rule or regulation, please stat	e the follow	ing:	
	(a)	What is the cost to implement the federal rule or regulation?						
	<u>Cur</u>	rent Fiscal	<u>Year</u>		Next Fiscal Year			
	Fed Casi Spe	eral Revenu eral Funds h Funds cial Revenue er (Identify)			General Revenue Federal Funds Cash Funds Special Revenue Other (Identify)			

Total		Total	
(b) What is the add	litional cost of the state rule?		
Current Fiscal Ye	<u>ar</u>	Next Fiscal Year	
General Revenue Federal Funds Cash Funds Special Revenue Other (Identify)	N/A	General Revenue Federal Funds Cash Funds Special Revenue Other (Identify)	N/A
Total		_ Total	

5. What is the total estimated cost by fiscal year to any private individual, entity and business subject to the proposed, amended, or repealed rule? Identify the entity(ies) subject to the proposed rule and explain how they are affected.

Current Fiscal Year

Next Fiscal Year

\$ \$

Although the Commission continues to recommend using surface water sources instead of continuing to deplete ground water sources, conjunctive water management does not limit groundwater use or require surface water use. On the whole, conjunctive use of ground and surface water is a sound investment, rather than a short-term expense to ensure that commodity production continues at current or better levels. See 2402.1

If these rules become effective, the Commission recommends lengthening the period for claiming tax credits or increasing the amount of the credit available, and the General Assembly passes legislation to that effect; then private individuals or businesses will have increased opportunities to benefit from tax credits for the installation of conservation measures. See 2402.2

If the Commission continues to seek bonding authority as needed to finance and refinance the development of water projects, businesses will continue to benefit the provision of construction, repair, maintenance, and operation services to water and sewer infrastructure. Because such projects cannot usually be financed without state monies, many of these businesses depend on the continued need for such services. See 2402.3 and 4.

Continued water availability to ensure commodity production indefinitely is important to the state's economic future. Therefore, Sections 2402.5, 2402.6, and 2402.7 have a positive impact on agricultural businesses, the economy that surrounds and depends upon agricultural businesses, and anyone else who has need of water for any purpose. Preparation for drought can save money for farming operations and water providers by being ready to adapt during dry period, rather than finding expensive fixes. A longterm water supply is necessary for growth and development.

If the USDA, ANRC, and conservation districts produce the nutrient management plans recommended in Section 2402.8, those plans will be produced at no cost to farming businesses. Expenses that a farming business may have as a result of required nutrient management plans could include payment of hourly wages for time spent by laborers to take soil samples and deliver the samples to a lab for testing. Small businesses may also incur expenses maintaining nutrient management records. Finally, a small business may need to make improvements to storage of animal waste or animal-based fertilizer. However, these expenses should be balanced against the savings a business may achieve by avoiding the expense of overapplication of nutrients in the absence of soil and litter testing. Everyone benefits from cleaner water as a 6. What is the total estimated cost by fiscal year to state, county, and municipal government to implement this rule? Is this the cost of the program or grant? Please explain how the government is affected.

Current Fiscal Year

Next Fiscal Year

\$

The cost to state government for implementing these rules should be minimal as existing staff and programs are available to handle any new workload. Public awareness and education are a critical part of these rules, and there will be some expense for distribution of any materials that cannot be delivered through online means. (See Sections 2402.9 and 2402.10)

7. With respect to the agency's answers to Questions #5 and #6 above, is there a new or increased cost or obligation of at least one hundred thousand dollars (\$100,000) per year to a private individual, private entity, private business, state government, county government, municipal government, or to two (2) or more of those entities combined?

Yes No No

If YES, the agency is required by Ark. Code Ann. § 25-15-204(e)(4) to file written findings at the time of filing the financial impact statement. The written findings shall be filed simultaneously with the financial impact statement and shall include, without limitation, the following:

- (1) a statement of the rule's basis and purpose;
- (2) the problem the agency seeks to address with the proposed rule, including a statement of whether a rule is required by statute;
- (3) a description of the factual evidence that:
 - (a) justifies the agency's need for the proposed rule; and
 - (b) describes how the benefits of the rule meet the relevant statutory objectives and justify the rule's costs;
- (4) a list of less costly alternatives to the proposed rule and the reasons why the alternatives do not adequately address the problem to be solved by the proposed rule;
- (5) a list of alternatives to the proposed rule that were suggested as a result of public comment and the reasons why the alternatives do not adequately address the problem to be solved by the proposed rule;
- (6) a statement of whether existing rules have created or contributed to the problem the agency seeks to address with the proposed rule and, if existing rules have created or contributed to the problem, an explanation of why amendment or repeal of the rule creating or contributing to the problem is not a sufficient response; and
- (7) an agency plan for review of the rule no less than every ten (10) years to determine whether, based upon the evidence, there remains a need for the rule including, without limitation, whether:
 - (a) the rule is achieving the statutory objectives;

- (b) the benefits of the rule continue to justify its costs; and(c) the rule can be amended or repealed to reduce costs while continuing to achieve the statutory objectives.