



October 23, 2014

Via email to: arkansaswater@cdmsmith.com

and

Via fax to: 505.243.2700

Arkansas Water
CDM Smith
6000 Uptown Blvd. NE, Suite 200
Albuquerque, NM 87110

Re: Draft for Public Comment of Executive Summary for Arkansas Water Plan Update

Dear Sir or Madam:

Beaver Water District (BWD) appreciates this opportunity to provide comments on the Draft for Public Comment of the Executive Summary for the Arkansas Water Plan Update (hereinafter referred to as the "Executive Summary"). BWD is a public drinking water treatment utility located in Lowell, Arkansas, and is the second largest drinking water utility in the state. We treat water from Beaver Lake, a Corps of Engineers reservoir, and supply drinking water to the Northwest Arkansas towns of Fayetteville, Springdale, Rogers, and Bentonville. These cities then resell the water to more than 300,000 people and industries.

The Arkansas Natural Resources Commission (ANRC) and its consultants should be applauded for their efforts to involve the public in the Arkansas Water Plan Update process. We look forward to the continuation of those efforts as the Arkansas Water Plan Update is finalized and implemented. As we communicated to ANRC staff during the workgroup and public meeting process, BWD continues to believe that the update to the Arkansas Water Plan should prioritize the management of Arkansas' water to provide for the State's present and future public drinking water needs. Approximately six years ago, the Northwest Arkansas Council (NWAC) commissioned the original Beaver Lake Watershed Protection Strategy in part because of the recognition that abundant, affordable, and high quality drinking water is critical to the health and continued prosperity of Northwest Arkansas. Statewide, we can think of no more important use for the State's surface and ground water than to supply public drinking water. With that in mind, we offer the following comments regarding the Executive Summary. The comments begin with overarching and general issues and proceed to items in the order in which they appear in the Executive Summary.

1. "Excess" Surface Water: While the Executive Summary includes some important revisions that acknowledge public drinking water as a priority, some of the goals, recommendations, and implementation plans still have the potential to adversely impact the quality and quantity of the State's present and future drinking water supplies. This is in part due to the emphasis in the Executive Summary on promoting projects that would provide the infrastructure to transfer "excess" surface water for storage and use by nonriparians, such as the Grand Prairie and Bayou Meto projects.

BWD in general does not object to the diversion of excess water for nonriparian use under circumstances that *fully preserve and protect* water quality, all waterbody designated uses, and

the needs of riparian water users, including drinking water utilities. This means that determinations regarding “excess” water must remain conservative and include ample buffers. It also means that safeguards must be put in place so that the withdrawal of “excess” water for nonriparian use does not create a dependency on the transferred water which, directly or indirectly, results in decisions and actions during times of drought that adversely impact riparian users, water quality, and waterbody designated uses. If hundreds of thousands of dollars are invested in projects to transfer “excess” water to nonriparians and in the resulting agricultural and other developments, it is not difficult to imagine political forces coming to bear to maintain water to those developments during drought irrespective of the “upstream” impacts.

The Executive Summary should include a clear and prominent statement that during periods of water shortage, public water systems have priority and a reserved water right while nonriparian users – including recipients of water from the types of water development projects supported by the Arkansas Water Plan update – are subordinate *and this may mean that during periods of drought they receive no water and suffer economic loss*. Similarly direct language should be utilized by ANRC in its nonriparian permitting program. A commitment to this could be included in the “Recommendations” and “Implementation Plan” subsections of Sections 3.2 and 3.3 of the Executive Summary.

See related Comments 11 -14, below.

2. Water Quality as related to “Available” and “Excess” Surface Water: The Executive Summary should include a discussion, perhaps in Sections 3.3 and 6.1.2, of the link between water quality and how much surface water is “Available” or “Excess.” Water quality and water quantity are inextricably linked, and the Arkansas Water Plan Update needs to factor that into its evaluations and calculations. According to Table 6-4 on page 57, twenty-seven percent (27%) of lake acres assessed are impaired for drinking water use and twenty-five percent (25%) of stream miles assessed are impaired for fish and wildlife use. In what, if any, fashion were those and other impaired lake acres and stream miles taken into account in the calculations related to “Available” and “Excess” water? See also Comments 11 -14, below.

3. Introduction, pages 2-4: The Executive Summary was made available for public comment, but it is unclear what it summarizes. In other words, *what constitutes the entire Arkansas Water Plan Update?* It would be helpful to include an explanation of this in the Executive Summary’s Introduction. If multiple documents make up the Arkansas Water Plan Update, a Table listing the documents and how they can be accessed should be included in the Executive Summary’s Introduction. It also would be helpful if the Introduction included a discussion of whether and how the ANRC will consider approval or adoption of the Executive Summary once it is finalized. Further, an explanation is needed regarding whether and how the ANRC might incorporate all or portions of the Arkansas Water Plan Update into its regulations.

4. Appendices: Page ii of the Table of Contents for the Executive Summary lists ten appendices (A through J). None of the appendices, however, are included with the Executive Summary that was made available online for public review. With a fair amount of effort, it was possible to track down elsewhere some of the documents listed as appendices. Our

understanding is that several of the appendices did not exist at the time the Executive Summary went to public notice. The fact that the appendices were not posted with the Executive Summary limited the public's ability to fully analyze and understand the Executive Summary and whatever constitutes the full Arkansas Water Plan Update. The remedy for this would be for ANRC to reopen the comment period and make all of the appendices available with the Executive Summary.

5. Page 1, second sentence of the Foreword: We suggest that this sentence be revised to emphasize the priority of public drinking water. We recommend the following changes: “As such, water must be managed in a sustainable manner to, first and foremost, provide for public health and safety through public drinking water and to support local and state economies, protect ~~public health and~~ natural resources, and enhance the quality of life of all citizens by applying appropriate policies and best practices with limited regulation and preservation of private property rights.”

6. Page 4, Section 1.2, AWP Vision, Mission, and Goals, under “Vision for Managing Water Resources in Arkansas”: This subsection is a repeat of the first two sentences of the Foreword on Page 1 and should be revised as set forth in Comment 5, above.

7. Page 5, Section 2, Key Findings: This section begins with the following sentence: “The technical analyses completed for the 2104 AWP are described in detail in reports that are included as appendices to the AWP. These reports are: Water Availability (Appendix C), Demand Forecast (Appendix E), Gap Analysis (Appendix F), and Alternatives Analysis (Appendix G).” As discussed in Comment 4, above, the appendices were not made available with the public review copy of the Executive Summary. This limited the public's ability to review and comment upon the key findings from each of the reports that are discussed in Section 2 of the Executive Summary. ANRC should reopen the comment period and provide the Appendices with the Executive Summary.

We were able to locate the Water Availability report. Appendix A to that report is called a “Summary of the Excess Water Calculation Method and Relevant Assumptions.” While eight river basins are covered in Appendix A to the Water Availability Report (which is supposed to be Appendix C to the Executive Summary), it does not include a section for the White River Basin. The title of Appendix B to the Water Availability Report is “Excess Surface Water Calculation Spreadsheets and Basin Maps.” A map of the White River Basin is included. Unlike the other river basins, however, no calculation spreadsheets are included for the White River Basin. These are significant omissions given the importance of the White River Basin to water planning in Arkansas.

8. Page 5, Section 2.1, Demand Projections: The eighth bullet point states that, “Statewide municipal and self-supplied drinking water supply demand is projected to increase by about 25 percent from 462,500 acre feet per year (AFY) in 2010 to 578,000 AFY in 2050” The Executive Summary predicts an increase in statewide demand of 115,500 AFY for drinking water. BWD's current water usage is approximately 60,500 AFY; our long-range studies project a demand for the year 2054 of approximately 161,600 AFY, an increase by 2054 of about

101,100 AFY. BWD's projected growth, therefore, accounts for approximately eighty-five percent (85%) of the Executive Summary's projected growth in statewide demand by 2050. This may mean that the total projected statewide drinking water supply demand is too low.

9. Page 6, Section 2.5, Water and Wastewater Infrastructure: This section includes a bullet point that provides cost estimates for Arkansas water and wastewater providers to "build, maintain, and replace required infrastructure through 2024." Additional bullet points note some of the challenges faced by water and wastewater providers. Not mentioned is the increasing need for water providers to devote resources to source water protection efforts. This should be included.

10. Page 11, Section 3.2, Drought Contingency Response Priority Issue, items 2 and 3 under "Implementation Plan:" These items touch on conservation practices to reduce water use. The listed practices focus on reducing domestic water use. While we agree that domestic water users should adopt conservation practices – especially in a time of drought – about eighty percent (80%) of the water use in Arkansas is for crop irrigation (*see* Executive Summary Section 2.1). Given the amounts of domestic versus agricultural water use projected, it will require roughly a twenty percent (20%) reduction in domestic water use to have the same impact as a one percent (1%) reduction in agricultural use. The fact of the much larger water savings to be gained by reducing crop irrigation water use should be noted in this subsection.

11. Page 12, Section 3.3, Excess Water for Nonriparian Withdrawal and Use Priority Issue, "Background:" This subsection notes that, "The gap Analysis Report (Appendix F) evaluated the "total available" surface water, which is the available water when, after accounting for various riparian and instream needs, 100 percent of the remaining water is available for use." First, Appendix F was not provided with the Executive Summary, and the public should have the opportunity to take it into consideration when commenting on the Executive Summary. Second, while BWD understands the theoretical value of calculating the "total available" surface water, the Executive Summary should not assume, or even infer, that such amounts can be treated as "excess" surface water. Doing so would have many adverse consequences, including putting at risk the State's current and future drinking water supplies.

12. Page 13, Section 3.3, Excess Water for Nonriparian Withdrawal and Use Priority Issue, item 1 under "Recommendations": This item directs the removal of the twenty-five percent (25%) limitation in A.C.A. § 15-22-304(b) on the transfer of excess surface water to nonriparians. Then it directs ANRC (inferred from the second sentence in this item) to conduct a scientific study (actually, multiple studies of the various basins and subbasins in the Water Resource Planning Regions) in consultation with the Arkansas Game and Fish Commission (AGFC) and the Arkansas Department of Environmental Quality (ADEQ). In order to provide for protection of the State's public drinking water, this item should be revised as follows: (1) replace the word "Remove" with "Consider changes to" in regard to the 25% limitation; (2) specify that the study is to be completed *prior* to consideration of changes to the 25% limitation; (3) require that the study incorporate conservative assumptions and cushions; (3) include the Arkansas Department of Health (ADH) as a collaborator on the study; and (4) include a formalized public participation, notice, and comment component in this process.

13. Page 13, Section 3.3, Excess Water for Nonriparian Withdrawal and Use Priority Issue, item 1 under “Implementation Plan:” The first sentence in this item should be changed to include ADH as a collaborator in the study along with ANRC, ADEQ, and AGFC. A new second sentence along the lines of the following should be added to item 1: “The study will utilize a precautionary approach and incorporate conservative assumptions.”

14. Page 13, Section 3.3, Excess Water for Nonriparian Withdrawal and Use Priority Issue, item 2 under “Implementation Plan:” The first sentence should be revised as follows: “ANRC will consider proposing statutory changes ~~for eliminating regarding~~ the 25 percent limitation on nonriparian withdrawals and will consider promulgating alternative proportions of water available for nonriparian withdrawal . . .” It is important for the protection of drinking water sources, among other water uses, that the current limitation governing the amount of water allocated to nonriparian withdrawals remain in the law until such time as a scientifically-based, precautionary study process that involves stakeholders and the public has been initiated and completed. It is unnecessary and risks irreparable harm to remove the current protections before there is appropriate study and scientific justification for such a change that also supports any replacement standard.

15. Page 15, Section 3.5, Improving Water Quality through Nonpoint Source Management Priority Issue, item 2 under “Recommendations:” This item about ANRC collaborating with ADEQ and AGFC “to determine” waterbody attainment or nonattainment during the biennial water quality assessment and reporting process under Sections 303(d) and 305(b) of the Clean Water Act (CWA) could be interpreted as conflicting with the process and procedures established under the CWA. This item should be revised to acknowledge the *supporting* role that ANRC, AGFC, *and also ADH* play in providing information, data, and other valuable input to ADEQ as it fulfills its duties under the CWA.

16. Page 16, Section 3.5, Improving Water Quality through Nonpoint Source Management Priority Issue, item 2.b under “Recommendations:” This item provides that, “Streams currently attaining water quality standards in priority watersheds will be considered for protection through the NPS management program.” There is no indication in Section 3.5 as to what constitutes a “priority watershed.” While this may be a term that’s defined in ANRC’s Nonpoint Source Pollution Management Program, we recommend that the quoted sentence at least be revised as follows: “Streams currently attaining water quality standards in priority watersheds, including the watersheds of public drinking water sources, will be considered for protection through the NPS management program.”

17. Page 16, Section 3.5, Improving Water Quality through Nonpoint Source Management Priority Issue, item 3 under “Implementation Plan:” This item has the same problem that is discussed in Comment 15 above. It provides that ANRC will “participate with ADEQ and AGFC” in the biennial assessments conducted under CWA Section 303(d). Again, this item should be revised to provide that ANRC will contribute information, data, and other valuable input to ADEQ as it carries out its obligations under CWA Sections 303(d) and 305(b).

18. Page 16, Section 3.5, Improving Water Quality through Nonpoint Source Management Priority Issue, item 4 under “Implementation Plan:” This item deals with ADEQ’s triennial review of the Arkansas surface water quality standards pursuant to CWA Section 303(c)(1). It also needs to be reworded so that it is clear that ADEQ makes the decision on “identifying reference water quality for different classes of streams within ecoregions.”

19. Page 20, Section 3.8, Reallocation of Water Storage in Federal Reservoirs Priority Issue, item 1 under “Implementation Plan:” This item should be revised to provide that, “ANRC will review water supply needs within each of the WRPRs and, in conjunction with the public drinking water utilities and in recognition of their existing water rights, determine if these water needs might be supplied through reallocation of water storage in USACE reservoirs within the WRPRs.”

20. Page 46, Section 5.4.1, Legal Framework: This section notes that water utilities and water districts can “promulgate regulations” that “influence management of water resources.” Water utilities in Arkansas – whether municipal, regional, rural, or private – do not have regulatory authority to influence water resource management. Rather those utilities must work with their respective political bodies (cities, counties, and state and federal agencies) to accomplish such regulatory changes.

21. Page 47, Section 5.4.2, Water Agency Authorities and Missions, Table 5-3: This Table lists State Agencies and Regional Entities and their “Relationship to Water.” The listed Relationships seem inappropriate in several instances (*e.g.*, “Water Quality Standards” is listed only for the Arkansas Multi-Agency Wetland Planning Team and not for ADEQ or the Arkansas Pollution Control and Ecology Commission (APCEC)). “Source Water Protection” is listed as a Relationship for, among others, the Arkansas Forestry Commission, the Arkansas Plant Board, Local Conservation Districts, and Nonprofit Organizations, but *not* for Regional Water Distribution Districts. Source Water Protection probably should be a Relationship for Regional Water Distribution Districts, which include Beaver Water District. Also, many drinking water utilities in Arkansas aren’t Regional Water Distribution Districts and are left out of the entity categories in Table 5-3.

22. Pages 54 and 55, Section 6.1.2, Surface Water Availability, under “Methodology and Approach:” This subsection discusses how the amount of surface water available for use is quantified using the definition of “excess surface water” in ANRC Title 3. It notes that the “demands that must be accounted for” include listed “Instream Flow Requirements.” Interstate Compact flows were omitted from the listed Instream Flow Requirements (*see* ANRC Title 3, § 301.3(R) and (W); *but see* A.C.A. § 15-22-304 (b)(4)). This subsection also notes that the “instream requirements” are estimated using the protocols in Appendix C and the “future demands” are estimated using the methods detailed in Appendix E. Again, these Appendices were not included with the Executive Summary so that they could be reviewed and commented upon. That opportunity should be provided.

The last paragraph in this subsection discusses the “third part of the excess water calculations, *computing 25 percent of the flow that is “excess” to the demands*” This discussion fails to

mention that, in addition to the twenty-five percent (25%) limit, A.C.A. § 15-22-304 (e) places further numerical limits on the transfer of excess surface water in the White River Basin. That additional restriction should be included in the discussion and probably should also be included as a footnote to Figure 6-3, the “Excess Surface Water Calculation Steps.” The additional restriction is noted in the last paragraph on page 12 under Section 3.3, the Excess Water for Nonriparian Withdrawal and Use Priority Issue.

According to Figure 4-7 in the Water Availability Report (which is supposed to be Appendix C to the Executive Summary), the only gage on the main fork of the White River used for calculating water availability was USGS station 07077000 at DeValls Bluff. The drainage area above this station contains 23,400 square miles, a large portion of which is in Missouri. It’s unlikely that this one station adequately characterizes the available water from a reach of the river as remote as the Beaver Lake watershed. Water from Beaver Lake flows directly into Missouri and at that point is not subject to Arkansas’ Water Plan. The uppermost segment of the White River, from the Missouri State line upstream to the headwaters, should be treated as a peripheral watershed, and all availability and excess water calculations should be computed separately from the remainder of the basin.

23. Page 55, Section 6.1.2, Surface Water Availability, under “Surface Water Quantities:”

The first sentence in this subsection states that the “excess water available in the 32 river basins is shown in Table 6-2 and Figure 6-3 displays the average annual excess surface water for the major river basins.” First, this appears to be a reference to the wrong Figure, and perhaps the intended Figure has been omitted. Figure 6-3 on page 54 is the “Excess Surface Water Calculation Steps.” Second, in Table 6-2, “Calculated Excess Surface Water,” for the White River watershed, the Lower White River is missing. Also, because of questions about the “Excess Surface Water” amounts for the North Arkansas Water Resource Planning Region (WRPR) outlined in Comment 25, below, please verify the amount for the Upper White River in Table 6-2 on page 55.

24. Page 64, Section 6.1.4, Gap Analysis, under “Results” for the White River: This subsection discusses the projected groundwater gap for the White River basin. References are made to using not just “excess” surface water, but, rather, the total available surface water, to fill the groundwater gap. It would be a mistake to consider that approach. See Comment 11, above. We are raising this issue in relation to the White River basin, but similar statements are made in regard to the other major river basins.

25. Pages 68 and 70, Section 6.2.2, North Arkansas WRPR, Table 6-10 and Figure 6-11:

This section discusses the North Arkansas WRPR, which includes the Upper and Lower White River, the Upper Arkansas River, and the Cities of Fayetteville, Springdale, Rogers and Bentonville. Table 6-10 on page 68 is the “North Arkansas WRPR Summary of Surface Water Availability by Major Basin.” It provides that the total of the Major Basin “Excess Surface Water” in AFY is 6,218,701 and that the total of the Major Basin “Total Available Surface Water” is 24,874,802 AFY. Figure 6-11 on page 70 is the “North Arkansas WRPR Regional Watershed Statistics.” It notes that, based on analysis of major basins, the “Excess Surface Water” is 5,388,109 AFY and the “Total Available Surface Water” is 21,552,437 AFY. Since

the “Excess Surface Water” and the “Total Available Surface Water” numbers in Table 6-10 and in Figure 6-11 don’t match, there’s either an error somewhere or there needs to be an explanation for the discrepancies.

26. Page 69, Section 6.2.2, North Arkansas WRPR, under “Water Quality:” First, this subsection uses the term “North AWRPR.” We assume this should be “North Arkansas WPRP.” Second, this subsection provides that “Table A.1 in Appendix A summarizes the waterbodies in the North AWRPR that were assessed for the 2008 biennial assessment, those that were not attaining their designated uses, and the associated use sectors that were impacted.” According to the Table of Contents, Appendix A is the “2013 Arkansas Groundwater Protection and Management Act.” Clearly, the referenced Table A.1 is not to be found in that Act. Regardless of whether or not Appendix A was incorrectly labeled in the Table of Contents, the appendices were not included with the Executive Summary. Therefore, the public was unable to fully review and comment on this subsection. Again, we would appreciate the opportunity to do so.

27. Pages 69 - 70, Section 6.2.2, North Arkansas WRPR, under “Supply and Infrastructure Gaps:” This subsection discusses the projected groundwater gap for the North Arkansas WRPR. Again, multiple references are made to using the total available surface water to fill the groundwater gap. See also Table 6-14. We reiterate that such an approach is inadvisable, and this and related sections should include a discussion of the downsides to such an approach. (See Comments 11 and 24, above). As before, we note this issue in relation to the North Arkansas WRPR because that is where BWD is located, but our comments apply to the sections on the other WRPRs, as well.

In conclusion, the Executive Summary is lengthy and packed with details. BWD’s comments and suggestions, therefore, are not exhaustive. They are, however, intended to focus attention on the need to adequately provide for and protect the State’s current and future public drinking water needs and supplies, particularly when transferring “excess” surface water to nonriparians and when allocating water during drought. Northwest Arkansas is fortunate to have a good supply of high quality water, which has fueled growth and prosperity in the region. Risking that by lessening safeguards on how our drinking water supply and those throughout the State are managed in times of shortage and in times of excess is neither good for Northwest Arkansas or for the State as a whole.

Thank you for your consideration. If you have any questions about our comments, please contact me or Colene Gaston at 479.756.3651. We look forward to your responses to our comments and suggestions. We also look forward to working with the Arkansas Natural Resources Commission as it proceeds with the update to the Arkansas Water Plan.

Sincerely,

A handwritten signature in blue ink that reads "Alan Fortenberry" with a stylized flourish at the end.

Alan D. Fortenberry, P.E.
Chief Executive Officer
Beaver Water District

October 23, 2014

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Cc via email:

J. Randy Young, ANRC

Edward C. Swaim, ANRC

Senator Cecile Bledsoe

Senator Jim Hendren

Senator Bart Hester

Senator Uvalde Lindsey

Senator Jon Woods

Ellen Carpenter, ADEQ

Terry Paul, ADH

Jeff Stone, ADH

Mike Armstrong, AGFC

Mike Malone, NWAC

Rob Smith, NWAC

Dale Kimbrow, CAW

BWD Board Members