
**COMMENTS OF
ASSOCIATION OF ARKANSAS COUNTIES**

**ON FWS PROPOSED DESIGNATION OF CRITICAL HABITAT
FOR THE NEOSHO MUCKET AND RABBITSFOOT MUSSEL
(50 C.F.R. Part 17)**

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I. Executive Summary

A. Introduction

On October 16, 2012, the U.S. Fish and Wildlife Service (the “Service”) published a proposed rule¹ listing the Neosho mucket (*Lampsilis rafinesqueana*) and rabbitsfoot (*Quadrula cylindrical cylindrical*) mussels (the “target species”) as endangered and threatened, respectively, and designating critical habitats for both under the Endangered Species Act of 1973 (ESA), as amended.² On September 17, 2013, the Service published its final rule³ listing the Neosho mucket and rabbitsfoot mussels as endangered and threatened, respectively, but did not make a final determination on designation of critical habitat units for the target species. On August 27, 2013, the Service published a notice⁴ that it was reopening the public comment period on the proposed designation of critical habitat units for the Neosho mucket and rabbitsfoot mussels. The Service’s proposed rule specifically requested, *inter alia*, comments concerning relevant data regarding threats to the species and regulations that may be addressing those threats; reasons why the Service should or should not designate critical habitat; what areas should be included in the designation and why; what areas are essential for the conservation of the species and why; foreseeable economic impacts that may result from designating any area that may be included in the final designations; and whether the Service’s approach to designating critical habitat could be improved or modified to provide for greater public participation. Pursuant to the Service’s notices of the proposed rulemaking, the Association of Arkansas Counties and the undersigned

¹ 77 Fed. Reg. 63440.

² 15 U.S.C. § 1531 *et seq.*

³ 78 Fed. Reg. 57076.

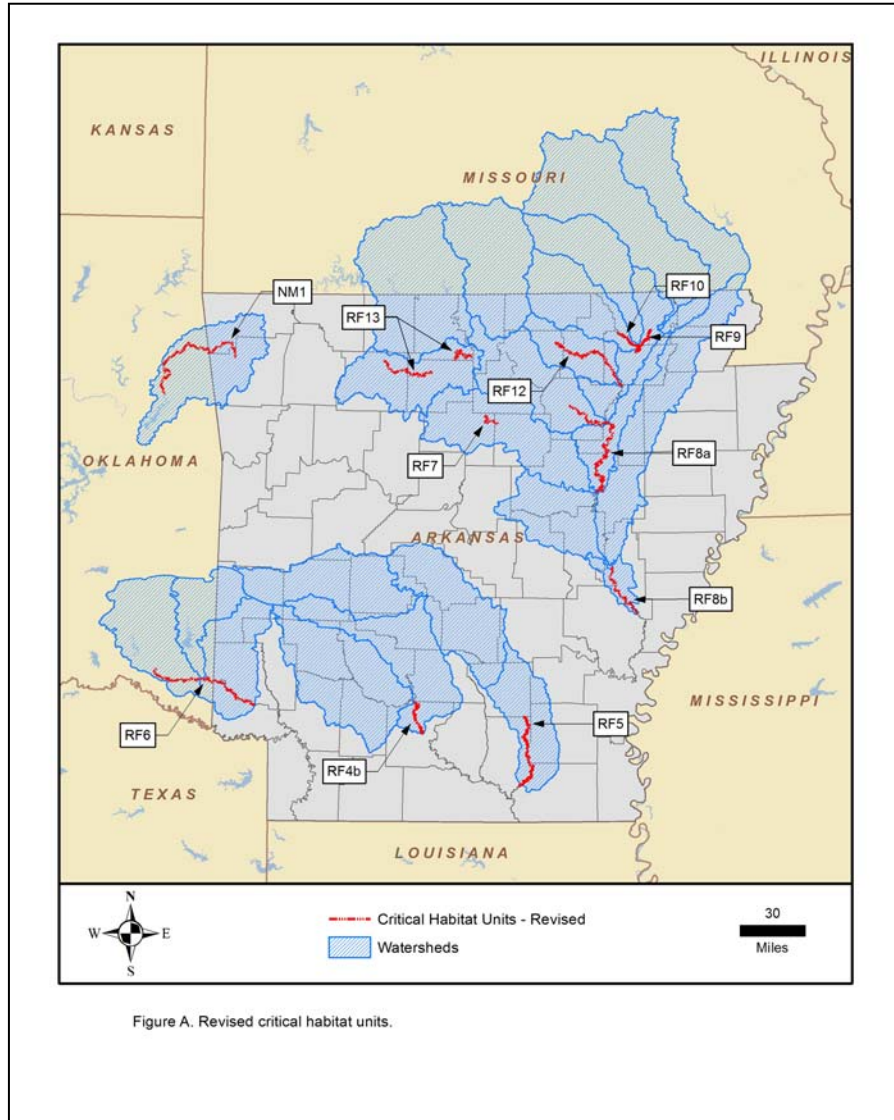
⁴ 78 Fed. Reg. 52894.

Commenters provide the following information and comments concerning the proposed designation of critical habitats for the Neosho mucket and rabbitsfoot mussels in Arkansas. The following comments address a number of the topics on which the Service requested additional information or comments.

The Service's proposed rule will designate a total of 769.2 river miles in Arkansas as critical habitat for Neosho muckets and rabbitsfoot mussels. The proposed critical habitat designations will directly impact 31 Arkansas counties, and, if finalized as proposed, the targeted watershed will cover approximately 42% of the entire geographical area of Arkansas.⁵

The Association of Arkansas Counties proposes that the Service reduce the critical habitat designations for the rabbitsfoot mussels as illustrated by the following map:

⁵ See *Review of Proposed Critical Habitat Designation for Rabbitsfoot Mussel and Neosho Mucket*, GBMc & Associates (Oct. 17, 2013) (Appendix A hereto).



B. Commenters

The undersigned Commenters are associations and individual organizations that represent a broad cross-section of Arkansas stakeholders whose real property and property rights will be affected by the designation of critical habitat for the target species. Many of the association members and individual organizations have an ownership interest in the riparian lands adjacent to the areas proposed for critical habitat designation. Still more of the associations' members

and individual business organizations will be negatively impacted by the affect the critical habitat designations will have on the ability to obtain necessary State or federal permits or to conduct commercial, agricultural and recreational activities on private property.

1. Association of Arkansas Counties

The Association of Arkansas Counties (“AAC”) is an association that represents Arkansas’ seventy-five counties and county and district officials. Designation of critical habitats for Neosho muckets and rabbitsfoot mussels will have a direct impact on Arkansas businesses and communities, which will, in turn, have an economic impact on employment, tax revenues, and overall quality of life throughout Arkansas. The AAC and its members have an interest in this rulemaking because the broad scope of the proposed critical habitat designation will result in costly and disruptive impacts that may or may not produce corresponding benefits, in part because so little is known about the specific habitat requirements for these species.

2. Arkansas State Chamber of Commerce/Associated Industries of Arkansas

The Arkansas State Chamber of Commerce and the Associated Industries of Arkansas, Inc. are independent non-profit corporations operated by a single staff in Little Rock, Arkansas. Combined, the AR State Chamber/AIA represents over 1250 businesses, manufacturers, business associations, local chambers of commerce and economic development corporations in all 75 counties in Arkansas. The mission of the AR State Chamber/AIA is to continually enhance the economic climate in Arkansas.

It is our strong belief that on overbroad designation of Critical Habitat for the rabbitsfoot mussel and Neosho mucket in Arkansas will have a significant negative impact on the overall economy of Arkansas. The direct economic impact on the economic operation of counties, cities, agricultural operations and many business and industrial operations is potentially very

costly. But the indirect economic impact of lost jobs, reduced or eliminated development and avoidance of necessary repairs and improvements greatly increases the negative impact on our state's economy. Additional damage to our economy will then follow in the form of lost tax revenue, increased unemployment claims, damage from unrepaired roads and bridges, increases in transportation costs. As local tax revenues are reduced and public assistance programs increase, tax increases will eventually be triggered that will not only have a direct negative impact on the state's economy but an even broader negative impact by reducing the state's economic competitiveness. Consequently the membership of the Arkansas State Chamber of Commerce and the Associated Industries of Arkansas, Inc. have a vested interest in the outcome of this critical decision that will impact the economic vitality of Arkansas for many years to come.

3. Arkansas Environmental Federation

Founded in 1967, the Arkansas Environmental Federation is a non-profit association with more than 250 members, the vast majority of them businesses and industries that deal with environmental, safety, and health regulations on a day-to-day basis. The AEF focuses on development of practical, common-sense laws and regulations based on sound science; a teamwork approach to compliance; and waste minimization and pollution prevention. As such, AEF and its members have a strong interest in the proposed designation of critical habitat throughout the State.

4. Arkansas Association of Conservation Districts

The Arkansas Association of Conservation Districts is a membership association, a 501 (c) 3 nonprofit, whose purpose and mission is to assist the 75 conservation districts of the state of Arkansas in their efforts to serve the soil and water conservation needs of the people of

Arkansas . The intent of the Arkansas Legislature when enacting the Conservation Districts Law in 1937, the first in the nation, was to “provide for the control and prevention of soil erosion, for the prevention of floodwater and sediment damages, and for furthering the conservation, development, and utilization of soil and water resources and the disposal of water, acquiring property or interests in land necessary to prevent and control sediment runoff, and . . . assist in the control of nonpoint source pollution, protect the tax base, protect public lands, and protect and promote the health, safety, and general welfare of the people of this state.”⁶ Ark. Code Ann. 14-125-105. This legislation was put into place to address natural resources issues such as drought and flooding, and remains relevant today for landowners, farmers, producers and ranchers dealing with drought, declining groundwater, and sediment and nutrient concerns. Conservation Districts Law established procedures for the formation of seventy five conservation districts which have all the powers and duties set out the Conservation Districts Law⁷. Conservation districts are local governments at work and their specific responsibility is management of our soil and water resources. The idea behind their formation is to keep decision making on soil and water conservation matters at the local level. Each district is governed by a board of five directors who serve without pay. Two directors are appointed by the Arkansas Natural Resources Commission and three are elected by resident landowners.

5. Arkansas Forestry Association

The Arkansas Forestry Association (“AFA”) advocates for the sustainable use and sound stewardship of Arkansas’s forests and related resources to benefit members of the state’s forestry community and all Arkansans today and in the future. AFA strives to be the respected leader and credible information source for all issues related to forestry. AFA and its members work

⁶ Ark. Code Ann. § 14-125-105.

⁷ Ark. Code Ann. § 14-125-106(1).

diligently to enhance and protect private property rights and facilitate programs and services that promote profitable forestry, sustainability and stewardship. The association has an interest in this rulemaking because the scope of the proposed critical habitat is overly broad and very little information is known to justify such a designation. If implemented as proposed, the critical habitat designation could have a significant, negative economic impact on the timber and forest products community. As important, delays in the ability of private landowners to implement effective, sustainable forestry practices could have a long-term impact on forest health in Arkansas.

6. Arkansas Farm Bureau

Arkansas Farm Bureau is an independent, voluntary organization of farm and ranch families united for the purpose of analyzing their problems and formulating action to achieve educational improvement, economic opportunity, social advancement and promote well-being. Arkansas Farm Bureau strives to be the voice of agricultural producers at all levels. The mission of Arkansas Farm Bureau is to advocate the interests of agriculture in the public arena. Arkansas Farm Bureau and its membership have an interest in this rulemaking because the proposed scope of this critical habitat designation is extremely broad and based on outdated science. If this critical habitat proposed is implemented, it will have an extremely detrimental economic impact on all agricultural practices with very little scientific data to support the cause. In addition to the following comments, Arkansas Farm Bureau is submitting a separate set of comments on the proposed rule.⁸

7. Arkansas Timber Producers Association

The Arkansas Timber Producers Association (“ATPA”) is a non-profit trade organization

⁸ To the extent Farm Bureau’s comments do not conflict or contradict those contained herein, the Commenters hereby adopt the comments of Arkansas Farm Bureau.

representing the logging and timber producing industry. The ATPA strives to enhance and improve the industry in the state of Arkansas on many fronts, and administers a national award-winning training program. The regulatory obligations imposed by the designation of critical habitat for the rabbitsfoot mussel will have a direct impact on the ATPA and its members.

8. Arkansas Poultry Federation

The Arkansas Poultry Federation promotes and protects all poultry interests relating to production, distribution, merchandising and consumption of poultry and poultry products; disseminates information relating to the various phases of the poultry industry in order to improve and expand markets; increases efficiency in production and marketing; encourages and supports research in production and marketing of poultry; and encourages and support youth programs in poultry work. The Poultry Federation has offices in Arkansas, Missouri and Oklahoma, and many of its members will be impacted by the proposed designation of critical habitat.

9. Arkansas Independent Producers and Royalty Owners

The Arkansas Independent Producers and Royalty Owners Association (“AIPRO”) is an association formed and established to represent all segments of Arkansas’ oil and natural gas production community. The exploration, development & production of these vital and important resources are carried out in approximately one-third of our state’s seventy-five counties. AIPRO and its members have an interest in the ongoing efforts to designate critical habitats for Neosho muckets and rabbitsfoot mussels and are pleased to be an active and engaged part of a larger group of mutually impacted industries, communities and associations concerned and involved in this process.

10. Agriculture Council of Arkansas

The Agricultural Council of Arkansas (“ACA”) is a non-profit trade association which has promoted agriculture and advocated on behalf of Arkansas farmers since 1939, and is committed to telling the story of row crop agriculture in Arkansas, advocating on behalf of the agriculture industry, and improving rural economies. The ACA’s membership is composed of family farms, agriculture related businesses, and others supportive of agriculture in Arkansas. ACA members strive to advance policies that will ensure the continued success of agriculture in our State. As such, ACA and its members have a strong interest in federal regulations which could impact private agricultural activities throughout the State, including the designation of critical habitat set forth in the proposed rule.

11. Camp Ozark

Camp Ozark (the “Camp”) is a privately owned, residential summer camp in Mt. Ida, Arkansas. The Camp is located along the Ouachita River in Montgomery County. Serving 5,600 campers each summer, the Camp is one of the largest employers in the county, with seasonal and year-round staff, and it is a major economic driver for the region. The Camp’s total economic impact on Central Arkansas is estimated to be \$8.2 million annually. Originally founded in 1949, the Camp has operated in its current form for nearly 30 years. Designation of critical habitat for rabbitsfoot mussels will have a direct and adverse impact on operation of the Camp. The Ouachita River is an integral part of the Camp’s programs, allowing students the recreational opportunities to swim, fish, and canoe. While the Service has proposed a portion of the Upper Ouachita River, CHU RF4a, for critical habitat designation, it has not been shown that this stream section harbors populations of rabbitsfoot mussels.⁹

⁹ See Comment II.B.5.

12. Arkansas Cattlemen's Association

The Arkansas Cattlemen's Association represents and supports the cattle industry within the State of Arkansas through producer education and representation on legislative and regulatory issues. The Arkansas Cattlemen's Association is the only voice that speaks solely for the cattlemen of Arkansas. The Arkansas Cattlemen's Association represents a variety of private interests throughout Arkansas that will be directly impacted by the designation of critical habitat for the Neosho mucket and rabbitsfoot mussels.

13. Energy and Environmental Alliance of Arkansas

The Energy & Environmental Alliance of Arkansas ("EEAA") is an ad-hoc collaboration of Arkansas' investor-owned, co-operative, municipal, and independent electric utilities and other energy companies formed to advocate, communicate and encourage energy and environmental policies that promote sound and predictable regulation of Arkansas' utility industry and support an economically viable and environmentally secure future for all Arkansans, including access to reliable and affordable energy resources. EEAA members own and operate facilities throughout Arkansas that will be affected by the designation of critical habitat for the Neosho mucket and rabbitsfoot mussels. As such, EEAA and its members have a strong interest in the designation of critical habitat in Arkansas.

II. Comments

A. The Service's Proposed Critical Habitat Unit Designations Fail to Comply with the Requirements of the Endangered Species Act.

The Service proposes to designate a total of 769.2 river miles in Arkansas as critical habitat for the Neosho mucket and rabbitsfoot mussels in the following 31 counties: Arkansas, Ashley, Benton, Bradley, Clark, Cleburne, Cleveland, Dallas, Drew, Fulton, Grant, Hot Spring, Independence, Izard, Jackson, Lawrence, Little River, Marion, Monroe, Montgomery, Newton,

Ouachita, Randolph, Saline, Searcy, Sevier, Sharp, Van Buren, Washington, White and Woodruff. However, as discussed below, the Service’s proposed rule fails to comply with the requirements of the ESA in several key respects.

Upon listing a species as endangered or threatened, the ESA mandates that the Secretary of the Service to promulgate a rulemaking to designate critical habitat for the species “to the maximum extent prudent and determinable.”¹⁰

The ESA defines “critical habitat” for an endangered or threatened species as:

(i) the specific areas within the geographical area occupied by the species, at the time it is listed... on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed... upon a determination by the Secretary that such areas are essential for the conservation of the species.¹¹

Thus, the ESA creates two separate limits on the Services’ ability to designate critical habitats:

- for areas that the record reflects are actually occupied by the species at the time of the listing, the Service must limit critical habitat to only those areas with features that are both (a) essential to the conservation of the species and (b) require special management considerations or protection.
- for areas that the record reflects are not actually occupied by the species at the time of listing, the Service must limit critical habitat to those areas “essential to the conservation of the species.”

Based on the record compiled by the Service, many areas have been proposed for critical habitat designation across almost half of the State of Arkansas where there have been no recent occurrences of the target species and/or where there is insufficient information to determine the

¹⁰ 16 U.S.C. §§ 1533(a)(3); (b)(6)(C)(ii).

¹¹ 16 U.S.C. § 1532(5)(A).

area is essential to the conservation of the species. Where even one historical occurrence was known from an entire river reach, the proposed rule states that the Service considered the entire reach between the uppermost and lowermost locations as occupied habitat, except lakes and reservoirs.¹² By designating entire stream reaches as critical habitat essential to the conservation of the species, the Service implies that critical habitat which is necessary for propagation of the species occurs throughout the entire stream reach. This approach is not consistent with the requirements for designation of critical habitat under the ESA, and the Service should not finalize the critical habitat unit designations as proposed.

Based on the record in the proposed rule, the Service's proposed rule designating critical habitats for Neosho mucklets and rabbitsfoot mussels fails to meet the ESA's requirements for lawful designation of critical habitat in a variety of respects. In some instances, the Service proposes to designate areas occupied by the target species as a critical habitat absent an appropriate determination that such areas include features that are essential to the conservation of the species and require special management considerations or protection. In other instances, the Service proposes to designate areas unoccupied by the target species as a critical habitat absent an appropriate determination that those areas are essential to the conservation of the species.

Further, the ESA expressly provides that "critical habitat shall *not* include the *entire* geographical area which *can* be occupied by the threatened or endangered species."¹³ Indeed, in a House Report accompanying the bill that incorporated this mandate into the requirements for critical habitat, Congress cautioned that "the Secretary should be exceedingly circumspect in the designation of critical habitat outside of the presently occupied area of the species."¹⁴ However, in many instances, the Service's proposed designation of critical habitat for Neosho mucklets or

¹² 77 Fed. Reg. at 64475.

¹³ 16 U.S.C. § 1532(5)(C) (emphasis added).

¹⁴ H.R. Rep. 95-632, at 18 (1978).

rabbitsfoot mussels violates this express statutory limitation on the appropriate scope of a critical habitat unit designation by including large geographical areas that have not been shown to be occupied by the target species at the time of listing and which do not include the physical or biological features which are essential to their recruitment. In several instances detailed below, the Service proposes arbitrary and capricious critical habitat designations that bear little to no relation to the ESA's express statutory requirements.

1. Where the Service Lacks Sufficient Information to Make Accurate Critical Habitat Designations, the Service Should Not Designate a Critical Habitat.

The Service's proposed rule arbitrarily extends the areas designated as critical habitat units to include stream segments which have not been demonstrated to harbor populations of Neosho mucklets or rabbitsfoot mussels. Some examples include the following:

- The Black River, CHU RF9, where there are no documented occurrences of rabbitsfoot mussels from the Black River downstream of Black Rock, Arkansas—CHU RF9 nevertheless includes the Black River downstream to the mouth of the Strawberry River.
- The Spring River, CHU RF12, where there are no documented occurrences of rabbitsfoot mussels upstream of Ravenden, Arkansas—nevertheless CHU RF 12 includes the Spring River upstream to Hardy, Arkansas.
- The upper Ouachita River, CHU RF4a, where the only record is from 1988, including single collections at the upstream most boundary and downstream-most boundary of proposed CHU RF4a, with no occurrences in between and no occurrences before or after the collections in 1988—CHU RF4a nevertheless includes the entire reach of the upper Ouachita River.

Many of the proposed critical habitat units include long distance stream segments, large portions of some of which have not been documented to harbor and/or support Neosho mucklets or rabbitsfoot mussels. Portions of the proposed critical habitat units also have conditions, such as hypolimnetic releases and year-round reduced water temperatures, which are not conducive to mussel population development and are not supportive of the target species. Some examples include the following:

- The Spring River, CHU RF12, from Hardy downstream to Ravenden, Arkansas, where a natural ground water source, Mammoth Spring, results in cold waters inhibiting population development.
- The Ouachita River, CHU RF4b, from Interstate 30 downstream to the mouth of the Little Missouri River, where hypolimnetic releases from Rammel Dam and DeGrey Lake Dam, on the Caddo River, prevent population development within this reach of the proposed critical habitat unit.

The ESA specifically provides that for areas not occupied by the species at the time of listing, critical habitat must be limited to those areas that are “essential to the conservation of the species,” and further provides that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.” By including large geographical areas that the record does not show to be occupied by rabbitsfoot mussels and which do not include the conditions that are conducive to development and support of the species, many of the proposed critical habitat designations for the rabbitsfoot mussel do not comply with the requirements of the ESA.

Additionally, the Service admits that its record for the proposed rule does not include sufficient information for the Service to determine the critical habitat features which are essential to the conservation of the species. The Service’s own description of the physical or biological features of the critical habitat for the target species states “little is known of the specific habitat requirements for the Neosho mucket and rabbitsfoot”¹⁵ and “the ranges of many water quality parameters that define suitable habitat conditions for the Neosho mucket and rabbitsfoot have not been investigated or are poorly understood.”¹⁶ That so little is known about the specific habitat requirements for the target species is a strong indication that the proposed critical habitat units are overly broad and unnecessary for preservation and propagation of the target species.

¹⁵, US Fish and Wildlife Service, 2013. Draft environmental assessment for designation of critical habitat for Neosho Mucket and Rabbitsfoot mussels, 3.

¹⁶ 77 Fed. Reg. at 63474.

2. The Service Should Limit Critical Habitat Designations to Areas Where Successful Host Species and Rabbitsfoot Mussels Coexist.

The Service relied on studies in support of the proposed rule which show that the preferred hosts for the rabbitsfoot mussel are the *Cyprinella galacturus*, *Cyprinella venustus*, *Cyprinella spilopterus*, and *Hybopsis amblops*.¹⁷ Distribution of these host species is predominantly limited to waters in the northern portion of Arkansas.¹⁸ The Service acknowledges that the presence and abundance of host fish species is essential to recruitment of Neosho mucklets and rabbitsfoot mussels, but the record does not reflect that the Service knows if there is presence and abundance of those host fish species.¹⁹ Because (a) the presence and abundance of host fish species is essential to recruitment of the target species and (b) the Service does not know those there is a presence and abundance of such hosts, the Service should limit the proposed critical habitat unit designations to those reaches where successful host fish species and rabbitsfoot mussels are known to coexist in the northern portion of the State. Without supporting data in the record for the presence of host fish species for rabbitsfoot mussels, any critical habitat designation by the Service would be arbitrary and capricious.

3. The Service Should Remove Streams that are Impacted/Controlled by Hypolimnetic or Other Cold Water Releases because Those Streams are Not Preferred Habitats.

Several of the proposed critical habitats are located within the influence of hypolimnetic (cold water) discharges from reservoirs or spring dominated flows. Some examples include the following:

- The Spring River, CHU RF12, from Hardy downstream to Ravenden, Arkansas, where a

¹⁷ Yeager, B.L. and R.J. Neves, 1986. Reproductive cycle and fish hosts of the Rabbitsfoot mussel, *Quadrula cylindrical staigillata* (Mollusa:Unionidae) in the upper Tennessee River drainage The American Midland Naturalist 329-340; Fobian, T.B. 2007. Reproductive biology of the Rabbitsfoot mussel (*Quadrula cylindrical* (Say, 1817)) in the upper Arkansas River system, White River system and the Red River system. Unpublished M.S. thesis, Missouri State University, Springfield. 104.

¹⁸ Robinson H.W. and T.M Buchanan, 1988. The Fishes of Arkansas, U of A Press, 536.

¹⁹ 77 Fed. Reg. at 63474.

natural ground water source, Mammoth Spring, results in cold waters inhibiting population development.

- The Ouachita River, CHU RF4b, from Interstate 30 downstream to the mouth of the Little Missouri River, where hypolimnetic releases from Remmel Dam and DeGrey Lake Dam, on the Caddo River, prevent population development within this reach of the proposed critical habitat unit.

The Service failed to consider the extinction gradients downstream of impoundments that contributed the reduction to altered flow regimes and reduced water temperatures, which are not conducive to successful propagation of the target species.²⁰ That is, the record, and reality, reflects that rabbitsfoot mussels cannot and do not live in cold water. The critical habitats proposed in the stream reaches that are impacted/controlled by hypolimnetic or other cold water releases are not preferred habitats for rabbitsfoot mussels, and the Service should remove those reaches from the proposed critical habitat unit designation.

4. The Service should Limit Some Designations Because the Target Species Do Not Naturally Occupy Entire Reaches Proposed for Critical Habitat Designation.

According to the status report and the Service Assessment Form, the Service proposes designation of critical habitats for rabbitsfoot mussels due to its declining status. The Service bases this conclusion on the historical range of the species. The characterization of the species as in a declining status is based in large part on the condition of patchy distributions of individual populations that are highly fragmented and restricted to short reaches.²¹ However, the Service often demonstrates such patchy distribution as collections of rabbitsfoot mussels in clustered sites, to the exclusion of all others within the individual critical habitat unit. The record relied on by the Service indicates that rabbitsfoot mussels are habitat specialists (*i.e.*, being very selective

²⁰ Vaughn, C.C. and C.M. Taylor. 1999. Impoundments and the decline of freshwater mussels, a case study of n extinction gradient. *Conservation Biology*13:912-920.

²¹ 77 Fed. Reg. at 63455.

in the habitat they select) as opposed to being habitat generalists as proposed in the species status report. This natural habitat selectivity by rabbitsfoot mussels indicates that it occupies habitats that allow it to remain in the same general location throughout its life cycle. Although patches of stable habitat may be important for rabbitsfoot mussels,²² the patchy distribution of rabbitsfoot mussels is not necessarily an indication of declining population status, but instead actually a function of the species' natural habitat selection. Stream reaches that are not naturally preferred habitat for the target species are not appropriate for proposed critical habitat designation and should be removed from the final rule.

B. The Service Should Modify Specific Proposed Critical Habitat Units to Comply with the Requirements of the Endangered Species Act.

1. Saline River Proposed Critical Habitat Unit RF5

The Service proposes to designate 179.2 river miles of the Saline River in Ashley, Bradley, Cleveland, Dallas, Drew, Grant, and Saline Counties from Interstate 30 near Benton, in Saline County, to the Snake Creek confluence north of the northern boundary of Felsenthal National Wildlife Refuge northwest of Crossett, Arkansas ("Unit RF5") as critical habitat for rabbitsfoot mussels²³. According to the proposed rule, **private interests own approximately 92% of the adjacent riparian lands in Unit RF5**. Proposed Unit RF5 includes large areas where no living or dead occurrences of the species has been demonstrated with supporting records in the last twenty years. A rigorous study completed in 2004²⁴ identified 26 live specimens from 13 of 230 sites surveyed from the Saline River. The furthest upstream specimen identified in that study was located within the 2-mile reach above Highway 15 in Bradley

²² See 77 Fed. Reg. at 63472.

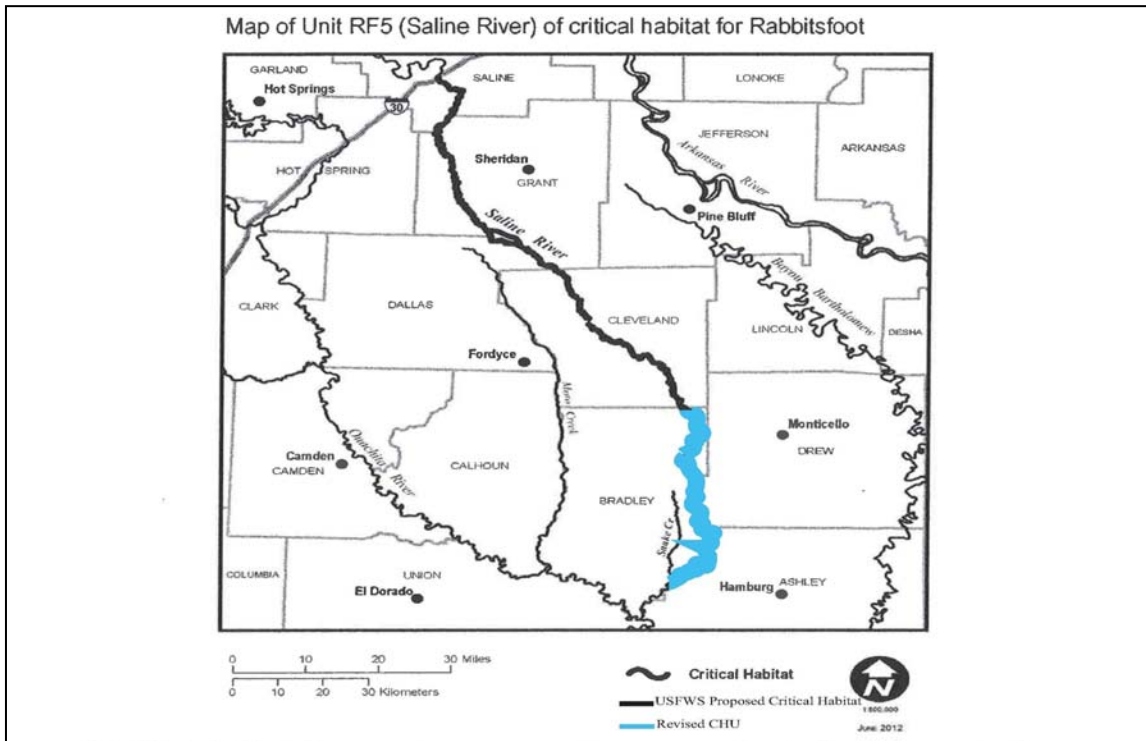
²³ See 77 Fed. Reg. at 63507.

²⁴ Davidson, C.L. and S.A. Clem.2004. The freshwater mussel resources in a selected segment of the Saline River: location species composition, and status of mussel beds. Addendum 2. Arkansas Hwy 15 to the Felsenthal National Wildlife Refuge. Final Report. Little Rock (AR): The Nature Conservancy and the Arkansas Game and fish Commission, 23.

County, approximately 129 river miles below the uppermost reach of proposed Unit RF5. Other specimens were sporadically located throughout the stream reach at seven locations downstream of Hwy. 15 in Bradley County. A 2005 survey²⁵ identified 24 live specimens from the same three primary sites where occurrences had previously been reported by the 2004 survey. The Service's proposed designation of critical habitat above that reach where specimens were identified in the 2004 and 2005 surveys appears to be based on the purported occurrence of one live specimen near the Saline/Grant County line in 2006 according to the Arkansas Game and Fish ("AGF") mussel database. However, there is no specific documentation to support the record from the AGF database, and the Service should not rely on just that one instance to designate 179.2 river miles as Unit RF5. As such, the record contains inadequate information to determine that the uppermost reach of Unit RF5 is actually, currently occupied by the target species.

The ESA limits critical habitat to those areas that are "essential to the conservation of the species," and the Service failed to demonstrate that (a) the uppermost reach of Unit RF5 is occupied by rabbitsfoot mussels and (b) that those areas are essential to the conservation of the species. The Service, therefore, should reduce the critical habitat for Unit RF5 to account for the area where the target species has been identified. The Service should reduce Unit RF5 from 179.2 river miles to approximately 50 river miles beginning approximately 2 miles upstream of Arkansas Highway 15, downstream to the Snake Creek confluence north of the northern boundary of Felsenthal National Wildlife Refuge northwest of Crossett, Arkansas, as shown here:

²⁵ Harris, J.L., 2006 *Quadrula fragosa* population estimates at 10 sites in the Ouachita River drainage, Arkansas. Final Report. Conway, AR: U.S. Fish and Wildlife Service, Field Office. 14p.+ Appendix I.



2. Ouachita River Lower Reach Proposed Critical Habitat Unit RF4b

The Service proposes to designate 98.1 river miles of the Ouachita River in Clark, Hot Spring and Ouachita Counties: From Interstate 30 at Malvern, Hot Spring County, downstream to U.S. Highway 79 at Camden, Arkansas (“Unit RF4b”) as critical habitat for rabbitsfoot mussels.²⁶ According to the proposed rule, **private interests own 100% of the adjacent riparian lands in Unit RF4b.** The Service’s record reflects that no live specimens of the rabbitsfoot mussel have been collected from the Ouachita River in Clark or Hot Spring Counties. According to the AGF database, the only reported occurrences of the target species in Clark and Hot Spring Counties was in 1983 and were of old, relic shells, not live specimens.²⁷ This information is inadequate for the Service to determine the entire reach of Unit RF4b is occupied by the target species, and the Service has not determined that designation of these unoccupied areas is essential to the conservation of the species.

²⁶ See 77 Fed. Reg. at 63506.

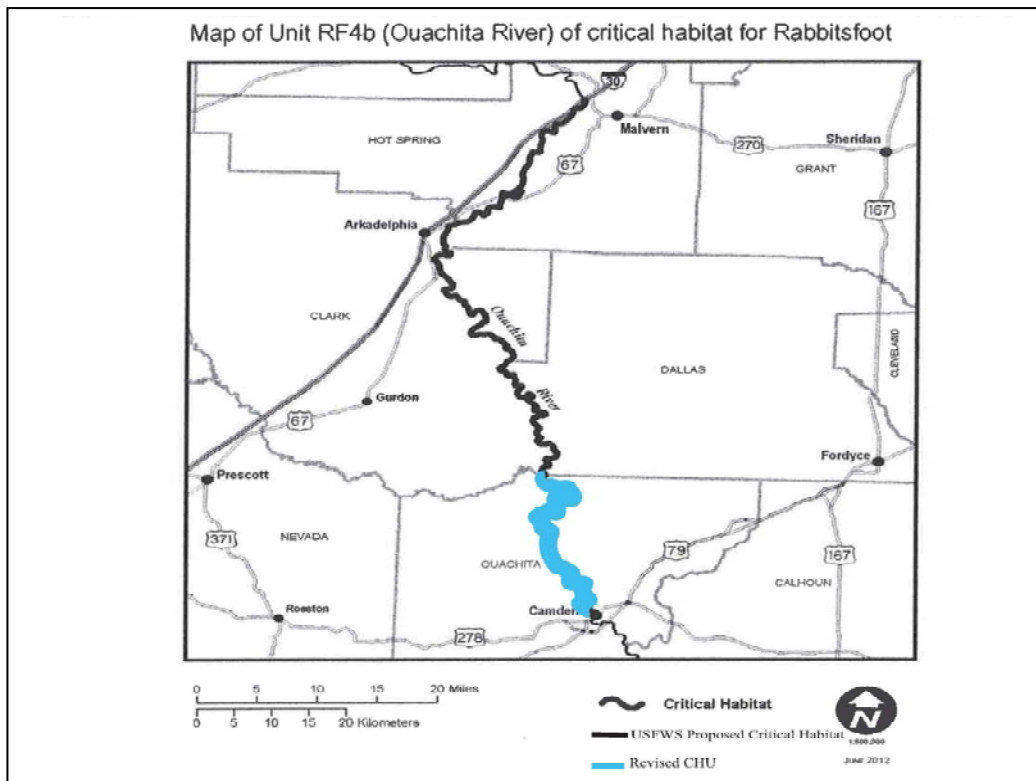
²⁷ Posey, 2013.

Moreover, because rabbitsfoot mussels are warm water organisms, the cold water hypolimnetic releases from the 3 main stem Ouachita River reservoirs²⁸ limit the potential development of rabbitsfoot mussel in that area. Research has identified mussel extension gradients downstream of hypolimnetic releases.²⁹ These extension gradients are attributed to modified hydrology reduced water temperatures that negatively impact the water quality (oxygen depletion) and reproductive efficiency of the individual mussels, and limits the presence of the host fish species. As noted above, the ESA expressly provides that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.”³⁰ By including large geographical areas that have not been shown to be occupied by the rabbitsfoot mussel and which do not include the features essential to the propagation of the species, the proposed designation for Unit RF4b does not comply with this express limitation on the geographical scope of critical habitat unit designations. As such, the Service should modify the critical habitat of this reach to include the Ouachita River from the mouth of the Little Missouri River at Tates Bluff downstream to Camden at U.S. Highway 79, as shown on the following page:

²⁸ Coldwater tailwaters are reinforced by releases from Lake DeGrey (Caddo River impoundment) which enter the Ouachita River at Arkadelphia, Arkansas.

²⁹ Vaughn, C.C. and C.M. Taylor. 1999

³⁰ 16 U.S.C. § 1532(5)(C).

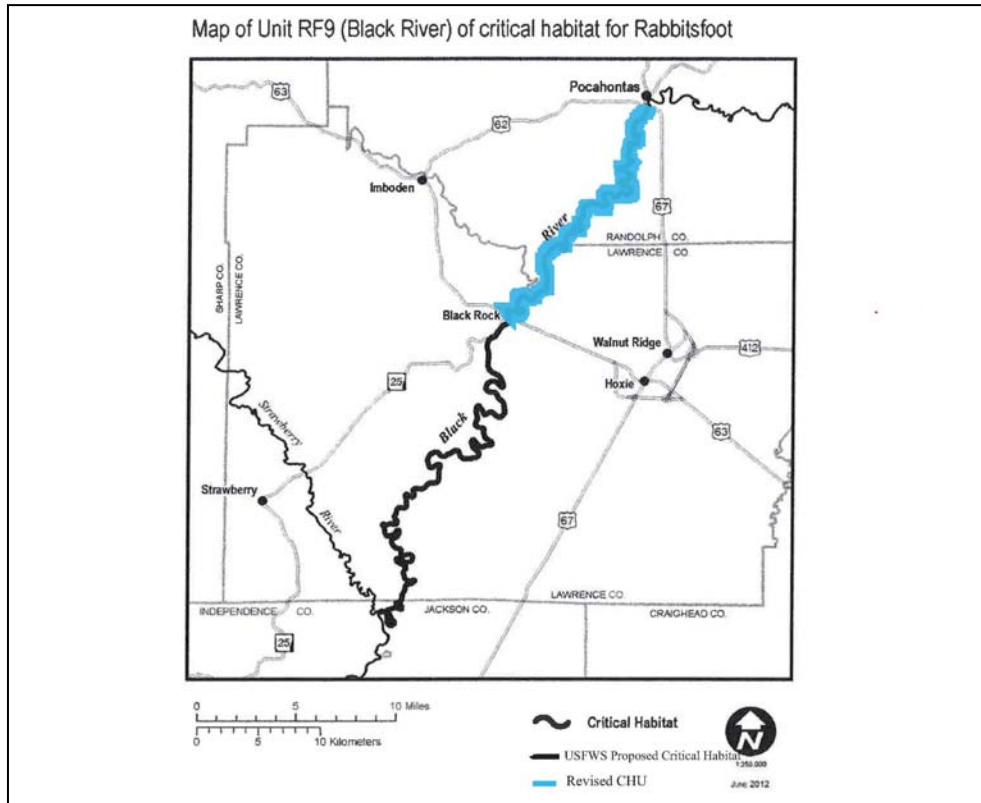


3. Black River Proposed Critical Habitat Unit RF9

The Service proposes to designate 57.3 river miles of the Black River in Lawrence and Randolph Counties from U.S. Highway 67 at Pocahontas, Randolph County, downstream to the Strawberry River confluence southeast of Strawberry, Arkansas (“Unit RF9”) as critical habitat for rabbitsfoot mussels.³¹ According to the proposed rule, **private interests own approximately 89% of the adjacent riparian lands in Unit RF9.** The record reflects no documentation of any existing populations in the Black River downstream of Black Rock within over 20 years. For areas not occupied by the species at the time of listing, the ESA provides that critical habitat is limited to those areas that are “essential to the conservation of the species,” and that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.” The Service has not shown that large areas of Unit RF9 are actually occupied by the rabbitsfoot mussel, nor has it demonstrated that those areas are essential

³¹ See 77 Fed. Reg. at 63512.

to the conservation of the species. By including large geographical areas that have not been shown to be actually occupied by the rabbitsfoot mussel and which do not include the features essential to the propagation of the species, the proposed designation for Unit RF9 does not comply with the requirements of the ESA. Accordingly, the Service should modify Unit RF9 to only include the Black River from Pocahontas downstream to Black Rock, as shown here:



4. Spring River Proposed Critical Habitat Unit RF10

The Service proposes to designate 39 river miles of the Spring River in Lawrence, Randolph and Sharp Counties from U.S. Highway 412 at Hardy, Sharp County, downstream to the confluence with the Black River east of Black Rock, Arkansas (“Unit RF10”) as critical habitat for rabbitsfoot mussels.³² According to the proposed rule, **private interests own approximately 99% of the adjacent riparian lands in Unit RF10.** The record reflects that the uppermost location of documented collection of rabbitsfoot mussels in Unit RF10 from the past

³² See 77 Fed. Reg. at 63513.

25 years is at Ravenden, Arkansas³³, approximately 20 river miles downstream of the proposed uppermost reach of Unit RF10. Occurrences of rabbitsfoot mussels have been routinely documented downstream of Ravenden, Arkansas, but not upstream of that point. For areas not actually occupied by the species at the time of listing, the ESA provides that critical habitat is limited to those areas that are “essential to the conservation of the species,” and that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.” The Service has not shown that large areas of Unit RF10 are occupied by rabbitsfoot mussels, nor has it demonstrated that those areas are essential to the conservation of the species. By including large geographical areas that have not been shown to be occupied by the rabbitsfoot mussel and which have not been shown to be essential to conservation of the species, the proposed designation for Unit RF10 does not comply with the requirements of the ESA.

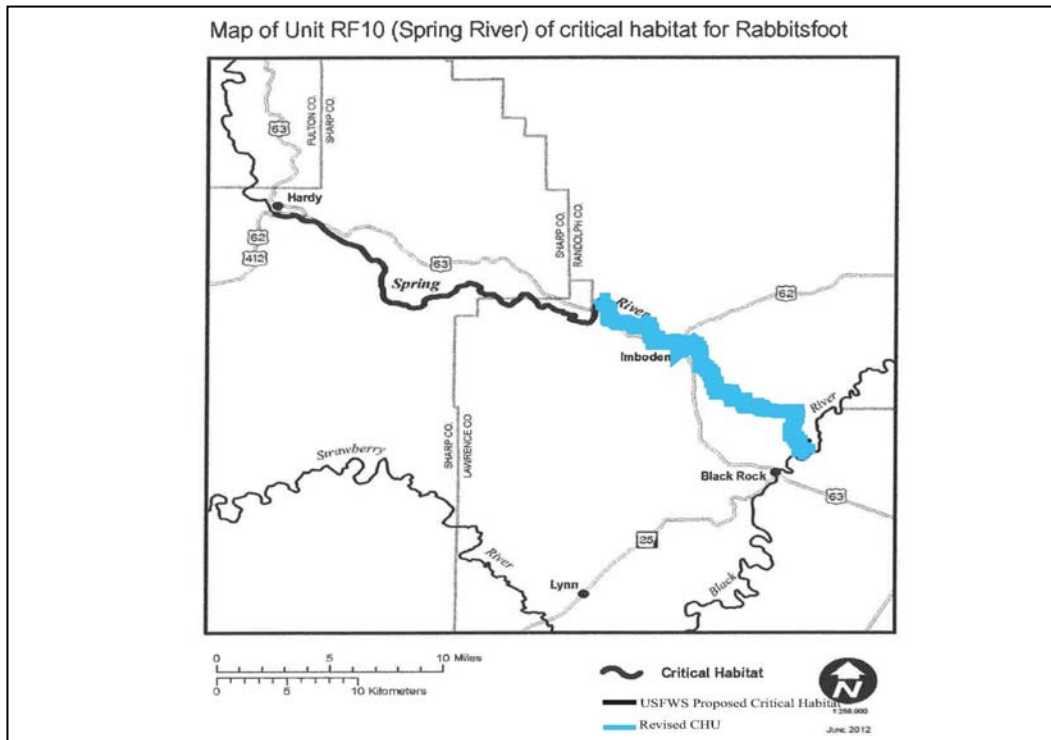
Regardless of whether these areas are known to be occupied by rabbitsfoot mussels, Unit RF10 is subject to existing regulatory mechanisms and requirements that are sufficient to preserve the physical and biological features that are essential to the conservation of the target species. Specifically, the subject waters are designated as Extraordinary Resource Waters and Ecologically Sensitive Waterbodies under Arkansas Pollution Control and Ecology Commission Regulation No. 2, which provides for a higher level of protection of water quality from point source and non-point source discharges. The proposed rule is based in part on the Service’s determination that existing regulatory mechanisms are inadequate for protection of the target species.³⁴ However, the proposed rule fails to acknowledge the protections afforded to these areas under State regulations or consider whether those existing mechanisms are sufficient to

³³ Posey, W.R. 2013, personal communication. Arkansas Game & Fish Mussel Database.

³⁴ See 77 Fed. Reg. 63440, 63455, 63463, 63466.

preserve the features essential to the conservation of the target species. By not considering these existing regulatory requirements and mechanisms, the proposed rule does not adequately address the factors required by the ESA.³⁵

Moreover, water temperatures in the Spring River upstream of Ravenden, Arkansas are not supportive of propagation of rabbitsfoot mussels. The water temperature of the Spring River is controlled by a natural, spring-fed source, and the reduced water temperature adversely impacts the reproduction and development of warm water mussel species.³⁶ Areas that are not supportive of propagation of the species are not essential to the conservation of the species, and are not appropriate for designation as critical habitat. For all of these reasons, the Service should modify Unit RF10 to include only the reach of the Spring River from Ravenden, Arkansas, downstream to the confluence with the Black River, as shown here:



³⁵ See 16 U.S.C. § 1533

³⁶ Vaughn, C.C. and C.M. Taylor. 1999. Impoundments and the decline of freshwater mussels, a case study of an extinction gradient. *Conservation Biology* 13: 912-920.

5. Ouachita River Upper Reach Proposed Critical Habitat Unit RF4a

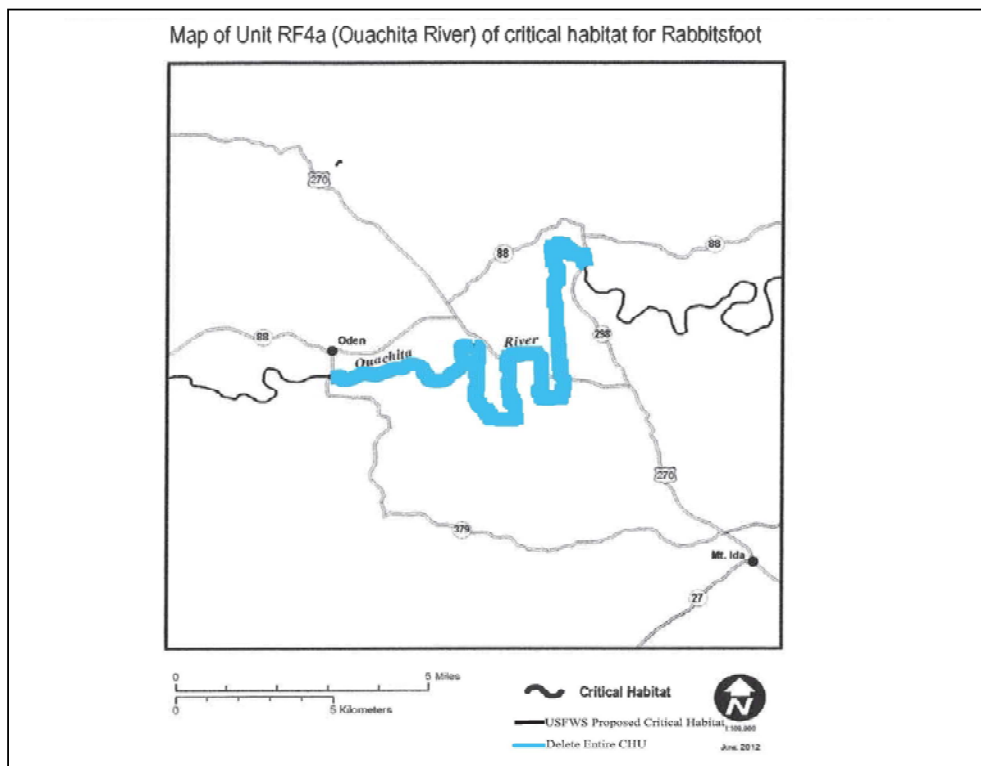
The Service proposes to designate 13.6 river miles of the Ouachita River in Montgomery County from Arkansas Highway 379 south of Oden, Arkansas, downstream to Arkansas Hwy. 298 east of Pencil Bluff, Arkansas (“Unit RF4a”) as critical habitat for rabbitsfoot mussels.³⁷ According to the proposed rule, **private interests own approximately 82% of the adjacent riparian lands in Unit RF4a.** Occurrences of rabbitsfoot mussels in this unit are only reported from two collections: one just below Hwy. 379 and one just above Hwy. 298.³⁸ According to the Arkansas Game and Fish database these collections consisted of one relic shell and three live specimens in 1988. As discussed above, for areas not occupied by the species at the time of listing, the ESA provides that critical habitat is limited to those areas that are “essential to the conservation of the species,” and that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.” The Service has not shown that Unit RF4a is occupied by rabbitsfoot mussels, nor has it demonstrated that the unoccupied areas proposed for critical habitat listing are essential to the conservation of the species. By including a large geographical area that has not been shown to be occupied by the rabbitsfoot mussel and which is not essential to conservation of the species, the proposed designation for Unit RF4a does not comply with the requirements of the ESA.

Regardless of whether these areas are known to be occupied by rabbitsfoot mussels, Unit RF4a is subject to existing regulatory mechanisms and requirements that are sufficient to preserve the physical and biological features that are essential to the conservation of the target species. Specifically, the subject waters are designated as Extraordinary Resource Waters and Ecologically Sensitive Waterbodies under Arkansas Pollution Control and Ecology Commission

³⁷ See 77 Fed. Reg. at 63505.

³⁸ Arkansas Game and Fish Mussel Database, Posey, 2013 personal communication.

Regulation No. 2, which provides for a higher level of protection of water quality from point source and non-point source discharges. The proposed rule is based in part on the Service's determination that existing regulatory mechanisms are inadequate for protection of the target species. However, the proposed rule fails to acknowledge the protections afforded to these areas under State regulations or consider whether those existing mechanisms are sufficient to preserve the features essential to the conservation of the target species. By not considering these existing regulatory requirements and mechanisms, the proposed rule does not adequately address the factors required by the ESA.³⁹ For these reasons, the Service should eliminate Unit RF4a from the final designation of critical habitat for rabbitsfoot mussels, as shown here:



³⁹ See 16 U.S.C. § 1533

6. South Fork Spring River Proposed Critical Habitat Unit RF11

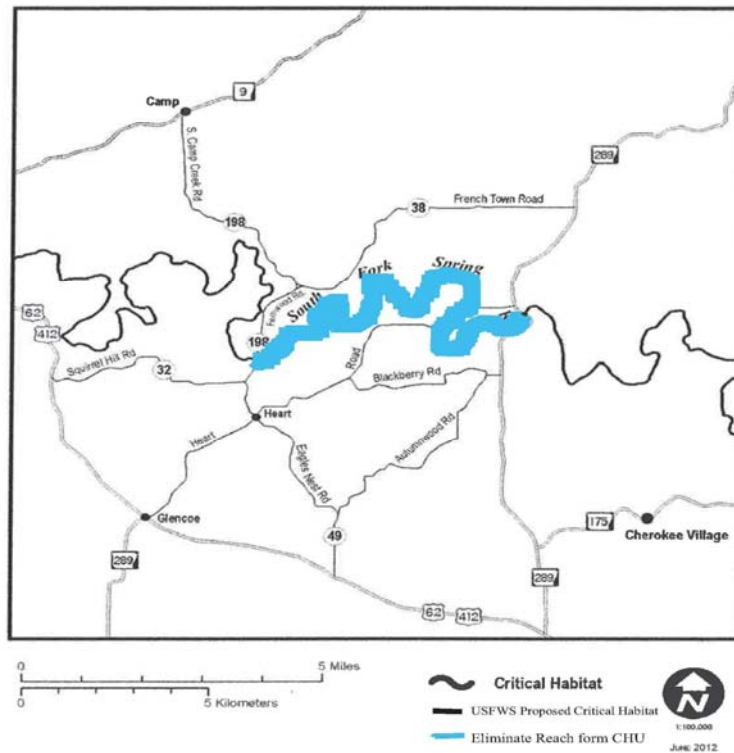
The Service proposes to designate 10.2 river miles of the South Fork Spring River in Fulton County: From Fulton County Road 198 north of Heart, Arkansas, downstream to Arkansas Hwy. 289 at Saddle, Arkansas (“Unit RF11”) as critical habitat for rabbitsfoot mussels.⁴⁰ **Private citizens own 100% of the adjacent riparian lands in Unit RF11.** Initial documentation of rabbitsfoot mussels in Unit RF11 in 2002 reported dead relics only, no live specimens. An intensive survey in 2003 failed to document any presence of the rabbitsfoot mussel.⁴¹ The Service’s status report found that the status of the species and its viability is unknown, but listed the current status as “declining” despite that no living mussels have been collected for the proposed critical habitat unit.⁴² As discussed above, for areas not occupied by the species at the time of listing, the ESA provides that critical habitat is limited to those areas that are “essential to the conservation of the species,” and that “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.” The Service has not shown that Unit RF11 is occupied by the rabbitsfoot mussel, nor has it demonstrated that the unoccupied areas proposed for critical habitat designation are essential to the conservation of the species. By including a large geographical area that has not been shown to be occupied by rabbitsfoot mussels and which is not essential to conservation of the species, the proposed designation for Unit RF11 does not comply with the requirements of the ESA. The Service should eliminate Unit RF11 in the final rule based on the lack of documentation of the presence of the species despite multiple surveys within the proposed critical habitat unit, as shown here:

⁴⁰ See 77 Fed. Reg. at 63514.

⁴¹ Marten, *et. al* 2009

⁴² Butler, R. S., 2005. Status assessment report for the Rabbitsfoot, *Quadrula cylindrical cylindrical*, a freshwater mussel occurring in the Mississippi River and Great Lakes Basins. Unpublished report, U.S. Fish and Wildlife.

Map of Unit RF11 (South Fork Spring River) of critical habitat for Rabbitsfoot



C. The Service’s Economic Analysis Fails to Account for the Actual Direct and Indirect Economic Impact to Arkansas Counties and Private Businesses.

1. The Proposed Rule Fails to Consider the Full Extent of the Economic Impacts Resulting from the Critical Habitat Designation.

In designating critical habitat, the ESA requires the Service to consider the “economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.”⁴³ The Service’s economic analysis supporting the proposed designation of the critical habitat for the Neosho mucket and rabbitsfoot mussels predicts the cost of critical habitat designation at a total of 4.4 million dollars (\$220,000 per year) over a 20 year period for all 10 affected states.⁴⁴ These costs are vastly understated because the Service’s economic analysis utilizes an incremental economic impact approach that only estimates the

⁴³ 16 U.S.C. § 1533(b)(2).

⁴⁴ U.S. Fish & Wildlife Service, Draft Economic Analysis of Critical Habitat Designation for Neosho Mucket and Rabbitsfoot (Feb. 6, 2013) (“Economic Analysis”).

likely cost of agencies consulting with each other, but does not consider the actual costs to businesses, state and local governments and other private property owners related to the required consultations.

In addition, although the economic analysis recognizes that “timber, agriculture, and grazing activities have the potential to significantly degrade water quality,⁴⁵” the economic analysis describes an “informal programmatic” consultation between the Arkansas Natural Resource Conservation Service.⁴⁶ The result of that informal consultation was that “over 50 practices” “may affect listed species and will require separate consultation between the Service and NRCS.” The economic analysis then stated that two such new conditions would be “(a) a 180 foot buffer along stream, discharge zones, and karst features and (b) use methods to prevent soil erosion and runoff.”⁴⁷ The economic analysis then predicts that “consultations with the Service on Farm Bill activities in the Arkansas study area will increase significantly in the future,” which the economic analysis recognizes will increase costs to private landowners, however “because there has not yet been a consultation with a landowner under this new system, *cost data for conservation efforts undertaken as part of Farm Bill program participation are unavailable.*” (emphasis added). When discussing how that fact is accounted for in the projections, the economic analysis refers the reader to Chapter 3.⁴⁸ But, when Chapter 3 is read, Chapter 3 refers the reader back to Chapter 4 for details.⁴⁹ This circularity means to the extent that future NRCS consultations leads to an increased rate of Section 7 consultation on Farm Bill programs, “[the economic analysis] may underestimate the incremental impacts to these

⁴⁵ Economic Analysis, paragraph 102, p 3-13.

⁴⁶ Economic Analysis, paragraph 160, p 4-11.

⁴⁷ Economic Analysis, paragraph 160, p 4-11.

⁴⁸ Economic Analysis, paragraph 161, p 4-11.

⁴⁹ Economic Analysis, paragraph 104, p 3-13.

activities of critical habitat designation.⁵⁰ (emphasis added). Because the economic analysis admits that Section 7 consultations will increase in Arkansas and that the Service has no way to predict the incremental costs to private landowners, the economic analysis improperly assumes that in Arkansas, a mainly privately owned, agricultural state, *over the next 20 years*:

- zero formal consultations will occur,
- only 627.3 informal consultations⁵¹ will occur, and
- only 120 technical consultations will occur.

These numbers are grossly underestimated, given that the NRCS and the economic analysis predict that the number of consultations “will increase significantly in the future”⁵² and that “cost data for conservations efforts” are “unavailable.” The economic analysis, therefore, by its own terms admits that the projected incremental cost for at least Arkansas’s timber management, agricultural, and grazing uses is entirely made up and not based on any actual economic data.

The Service’s economic analysis also completely fails to recognize the substantial economic impacts associated with obtaining a State or federal permit, project delays to undertaking a capital investment or infrastructure project, or implementing the conservation measures deemed necessary in the areas proposed for designation as critical habitat. As noted above, the vast majority of the riparian ownership of the areas proposed for critical designation is held by private interests. For instance, the Northeast Arkansas Public Water Authority, a small government jurisdiction in Arkansas, just last month had to spend \$2,825 to obtain a “Survey for Mussels” as a condition to obtaining a Section 404 Permit for bank erosion controls to be

⁵⁰ Economic Analysis, paragraph 105, p 3-13.

⁵¹ Economic Analysis, Exhibit 3-6, p 3-14. Those numbers include the total projected consultations for 5 Units that hold land in Arkansas and another state, which is a false assumption, but the Economic Analysis does not provide sufficient granularity to separate those totals.

⁵² See Footnote 46.

constructed at its existing water treatment plant.⁵³ This failure to realistically consider the actual costs to public and private interests associated with the designation of critical habitat renders the Service's economic analysis fundamentally flawed and useless as a practical matter.

2. Actual Economic Impacts of the Critical Habitat Designation Far Exceed Those Estimated in the Proposed Rule.

As discussed above, the Service's economic analysis focuses primarily on the costs of inter-agency consultation and does not incorporate the concept of "opportunity costs" associated with the actual restrictions associated with critical habitat unit designations. These latter costs represent a variety of business and economic development projects that are vital to the well-being of the many communities and rural areas that may be affected by restrictions on the use of rivers and their watersheds that harbor the target species. Public and private activities potentially impacted by the proposed critical habitat designation include road and bridge improvements; timber and agricultural uses; recreational uses; water treatment and water quality investments; and mining, oil and gas, and other uses. In an effort to estimate the true costs associated with the proposed critical habitat designations, AAC undertook an independent economic analysis utilizing additional research and data regarding local business conditions and pending economic developments that will be impacted by restrictions on the use of area rivers and their surroundings.⁵⁴ Considering even this limited scope of data, the independent economic analysis concluded that the total costs to the affected Arkansas counties would approach 20 million dollars. This is more than five times the cost of \$4.4 million that was contained in the Service's economic analysis for the entire twelve states and all rivers involved, yet the \$20 million figure only represents a small fraction of the present value of the total amount of economic activity that

⁵³ Personal communication with Matthew Dunn, Crist Engineers, engineer for Northeast Arkansas Public Water Authority, October 25, 2013.

⁵⁴ Economic Analysis of Proposed Designation of Critical Habitat for Rabbitsfoot Mussels and Neosho Mucket in Arkansas (Sept. 2013) (Appendix B hereto).

needs to be considered before the two mussel areas are protected. Before finalizing the critical habitat designations, the Service should undertake a good-faith economic analysis that considers the true economic impact of the critical habitat unit designations, and should afford the affected public an opportunity to review and comment on that analysis.

3. The Service's Economic Analysis Fails to Consider the 1000s of Small Entities Whose Land Use Does Not Fall Into the Arbitrary Categories.

The economic analysis only studied arbitrary land use categories and failed to consider the incremental cost to land uses other than those that fell into those categories. For instance, Camp Ozark, a signatory to these Comments, which is a private small business riparian landowner. Camp Ozark is a children's summer camp that has served generations of children over several decades. Its land use does not fall into one of the categories, but its land use will be regulated under the proposed critical habitat. Camp Ozark's land use will be inhibited under the proposed critical habitat designation, but the incremental potentially devastating economic impact on Camp Ozark, and other private landowners like it, has not been considered at all in the economic analysis.

4. The Service's Economic Analysis Failed to Conduct a Sufficient Analysis under the regulatory Flexibility Act.

The Regulatory Flexibility Act (RFA) requires that if the proposed rule is likely to have a significant economic impact on a substantial number of small entities, the Service must look for alternatives that accomplish main objectives of the rule while minimizing the impact on small entities. The RFA defines a "small business" by reference to the Small Business Act and defines "small government jurisdiction" as governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000. Of the 31 counties in Arkansas that will be in either the study area or the proposed critical habitat, 20 are small governmental jurisdictions, and there are hundreds of smaller governmental entities, such as the

Northeast Arkansas Public Water Authority mentioned above, that will be impacted by the proposed designation. The purported RFA analysis then admits that “potential financial impacts to local government agencies and private landowners *are not estimated* as a proportion of annual revenue due to a lack of data.”⁵⁵ Therefore, the economic analysis admits that it does not contain an actual consideration of whether or not the proposed critical habitat would have a substantial impact on local government jurisdictions, which comprise over half of the proposed study area and critical habitat designation area, many of which are very small local entities like the Northeast Arkansas Public Water Authority. That flaw alone renders the RFA analysis incomplete, and the Service should not rely on it in certifying that the proposed final rule will not have a significant impact on a substantial number of small governmental jurisdictions.

Additionally, for private land used for timber management, agricultural, and grazing uses, the purported RFA analysis relies on the flawed assumptions in Chapter 3 of the economic analysis to conclude that there will be no significant impact to small entities operating in the timber management, agricultural, and grazing industries in Arkansas⁵⁶ when the economic analysis clearly states that the Service had no data with which to predict future incremental costs that will be borne by private landowners in consultations with the Service under the as of yet undefined and unimplemented “new program” between the Service and NRCS related to landowners’ participation in the farm Program. The Service would be acting arbitrarily and not meeting the requirements of the RFA if it relied on data that it knows to be incomplete and inaccurate to find that there would be no significant impact on a substantial number of small entities engaged in timber management, agricultural, and grazing operations in the proposed study area and critical habitat areas in Arkansas.

⁵⁵ Economic Analysis, App A, paragraph 217, p A-4 (emphasis added).

⁵⁶ Economic Analysis, App A, paragraph 222, p A-10.

The economic analysis fails to conduct such an investigation, and, the Service should not adopt the draft economic analysis as the final economic analysis supporting the proposed rule. The Service should either instruct Industrial Economics to undertake a more thorough and accurate study of the potential incremental economic impact of the proposed rule on small entities or modify the proposed rule to not govern the actions of small entities in the proposed critical habitats.

III. Conclusion

The Association of Arkansas Counties and the undersigned Commenters sincerely appreciate the Service's consideration of the comments and additional information provided herein.

Respectfully submitted,

Association of Arkansas Counties
(signature pages follow)

Association of Arkansas Counties



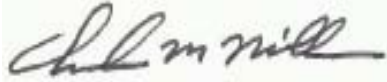
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Arkansas Poultry Federation

/s/

Marvin Childers
President

Arkansas Cattlemen's Association

/s/

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