

APPENDIX O

COMMENTS AND RESPONSES

ON THE DRAFT

ENVIRONMENTAL IMPACT STATEMENT

Jackson County Lake Project Draft EIS Comments and Responses

The Draft Environmental Impact Statement (DEIS) for the Proposed Jackson County Lake Project was issued on May 26, 2000. The public and agency comment period for the DEIS closed on July 10, 2000. Comments received were in the form of individual letters and public meeting statements. Many of the comments received were used in revising the text of the DEIS to prepare the final document.

Two public meetings on the DEIS were held on June 27, 2000. Transcripts of the public meetings are included in this Appendix.

This appendix contains the agency and public comments received by the United States Department of Agriculture (USDA), Rural Utilities Service (RUS) during the public review period for the DEIS. In accordance with 40 CFR 1503.4, Response to Comments, RUS has individually and collectively assessed and considered all of the comments on the DEIS received from all parties. On the following pages, comments and responses are shown side by side. Each comment page corresponds to one page of the comment letter or transcript received.

Each comment on a page is marked with a vertical line in the left side margin of the comment letter or public meeting transcript, and is assigned a code. The code consists of a number followed by a dash mark (-) and a letter (e.g., 1-A, 1-B, 2-A, etc.). The code number (e.g., 1-, 2-) represents the comment letter, and all comments from a given letter have the same code number. The code letter (e.g., A, B) represents an individual comment within a comment letter. Each comment in a given letter has a different code letter assigned to it. Similarly, RUS responses in the right column of the table are preceded by the code of the comment to which it refers.

Federal agency comments are presented first, followed by State agency comments, public comment letters, and lastly, public meeting transcripts. Within each of these categories, all comment letters received from different members of the same agency are presented consecutively.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 4
 ATLANTA FEDERAL CENTER
 61 FORSYTH STREET
 ATLANTA, GEORGIA 30303-8960

JUL 1 9 2009

Mr. Mark Plank
 U.S. Department of Agriculture
 Rural Utilities Service
 AG Box 1548
 Washington, DC 20250

Subject: Draft Environmental Impact Statement (DEIS) for the Proposed Jackson County Lake Project; Jackson County, KY; CEQ # 000152

Dear Mr. Plank:

Pursuant to Section 309 of the Clean Air Act and Section 102 (2)(C) of the National Environmental Policy Act (NEPA), EPA, Region 4, has reviewed the subject document. This DEIS is an evaluation of the potential impacts associated with the preparation, construction, operation, and associated actions attendant to building a dam, reservoir, and water transmission main leading from the reservoir to the Jackson County Water Association (JCWA) treatment plant at Tyner Lake. Various recreational amenities are also envisioned, viz. boat ramp, picnic, public beach, and campground, as part of the project's purpose/need. A 300-foot buffer has been proposed around the reservoir in an effort to protect its water quality from development and/or other improvident land uses.

The preferred alternative at the War and Steer Fork site would encompass 118 and 162 acres at normal pool and maximum flood elevations, respectively. The total acreage for the project (including the buffer) would involve 337 acres. Most of this property lies within the Daniel Boone National Forest. Whether the U.S. Forest Service would agree to exchange this parcel for a comparable property or continue to manage the reservoir for aesthetics and water quality purposes remain to be determined. The raw water transmission line would run a distance of 9.5 miles along existing rights-of-way to the JCWA treatment plant.

There are a number of important aspects of the project design and the ramifications thereof which need to be more fully described/evaluated in the final EIS:

WATER NEEDS

In part, the water needs' analysis is based on an average residential per capita

Comments on Jackson County Lake Project Draft EIS

Responses

2

<p>1-A</p>	<p>water use of 67 gal/day/person. However, this value is taken from statewide data. Local figures from Jackson and surrounding counties reveal that average water use is approximately 52 gal/day/person. Under the "Moderate" water needs scenario, this equates to a differential of 0.3 million gallons of water per day from that cited in the DEIS (See calculations below).</p>	<p>1-A: Please refer to Section 1.2.1.2.1, Projected Water Consumption Rates, of this FEIS for an explanation of the use of 67 gallons per day (gpd) as the residential per capita use rate.</p>
<p>1-B</p>	<p>Furthermore, the DEIS notes that water conservation can reduce water use by 10-30% (20%). By implementing water conservation measures in conjunction with whatever additional new water sources are developed, the necessary yield derived from those sources could be further diminished (See calculations below).</p>	<p>1-B: A water conservation factor of 10 percent was calculated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Please refer to this section for more information.</p>
<p>1-C</p>	<p>Three additional water utilities have expressed some interest in participating in the subject new water source. Their inclusion (taken as a commitment) resulted in an increase in the planning target by an additional increment (60%) above local water needs. The "actual" need for water from a new Jackson County source by at least one of these utility districts, Berea College, is open to question. Currently, Berea College meets its water supply needs with four reservoirs; a fifth potential reservoir could add an additional 20% to this existing capacity. Notwithstanding this questionable need, an additional 17.8% capacity (0.33 mgd) was included in the Jackson County water assessment to account for Berea College. Removal of the Berea College allocation, in conjunction with water conservation measures and a per capita residential water use based on average local consumption rates, would further reduce the total necessary yield to approximately 1.8 mgd. This more realistic need would make feasible many sites/measures which were discounted in the evaluation.</p>	<p>1-C: Berea College's projected water needs were removed from the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.</p>
<p>1-D</p>	<p>In a related issue, the discussion of anticipated industrial water needs does not reference efforts to attract low water-use industry (as opposed to intensive use industries). If potable water supply is such a critical issue in Jackson County, attempts should be made to foster industrial developments that are not water intensive. This would thereby reduce the demands on the local infrastructure and adverse consequence to aquatic resources.</p>	<p>1-D: The role of the Empowerment Zone (EZ) is to attract industries that are suitable to the economic and infrastructure conditions of Jackson County. Industries requiring high water consumption have numerous alternatives within Kentucky (e.g., along the Ohio River) in which they could locate. Such industries would likely explore development options in these locations before considering Jackson County.</p>
<p>1-E</p>	<p>Reference is made that the Jackson County Water Authority is currently making plans to add 40 miles of waterlines within the County. However, this addition is contingent on expanding treatment capacity of existing wastewater facilities. The final EIS should detail the difficulties and costs (environmental and otherwise) associated with upgrading wastewater treatment. Since the linkage of expanding the potable water system and waste water treatment is so fundamental to the subject proposal, water recycling should be examined as a means of lessening the need to expand existing wastewater treatment facility (ies). An analysis of the</p>	<p>1-E: Economic/business conditions in Jackson County are not likely to attract water-intensive industries. Therefore, impacts on wastewater treatment and infrastructure would be minimal. Incremental addition of housing units is not likely to be a significant factor. Most homes will utilize on-site water disposal systems and will be on scattered lots, minimizing the potential for significant water quality issues. However, wastewater treatment capacity in Jackson County may have to be expanded and/or upgraded as the population served by the Jackson County Water Association (JCWA) and the volume of residential, commercial, and industrial water use increases. The detailed analysis of environmental and economic costs, such as the assimilative capacity of receiving waters and financing arrangements, associated with such an expansion, however, are beyond the scope of analysis for this EIS. Likewise, an analysis of the feasibility of technological options, such as water recycling, in Jackson County, as a means both of reducing wastewater and of supplying a fraction of water needs, is most appropriately conducted at such time as these facilities are being actively proposed.</p> <p>1-F: The commenter is correct in noting that a lake is not necessary to provide</p>

Comments on Jackson County Lake Project Draft EIS

Responses

3

capacity of receiving waters to assimilate additional discharges from new users is also germane.

RECREATIONAL NEEDS

1-F The rationale for recreation as a project purpose needs to be re-examined in the final document. The *Recreational Needs Analysis* (Appendix F) indicates that only picnicking, hiking, camping, and swimming will experience any shortfall in capacities (above current facilities) until the year 2020. The bases for assuming that picnicking, hiking, and camping facilities need to be associated with a reservoir were incompletely developed. Approximately one-quarter (1/4) of Jackson County lies in the Daniel Boone National Forest. Its generally rugged landscape offers scenic views of southeastern Kentucky's natural topography and lends itself to hiking trails, picnic facilities, and campgrounds independent of a reservoir.

There are practical considerations which remain outstanding. According to the *Recreational Needs Analysis*, the need for swimming facilities reaches a maximum of only 29 acres by the year 2020. The justification for a 120-acre reservoir to meet a "projected" future demand needs to be specified. All other water-based recreation activities are adequately addressed capacity-wise within 50 miles of the proposed reservoir.

1-G Finally, Kentucky State regulations advise that water supply reservoirs should not allow swimming, water skiing and other contact sports and large motor operated craft (401 KAR 8:020). For these reasons, we question why/how recreation can become a bonafide project purpose capable of serving as a causal agent for elimination of other non-reservoir alternatives. If recreation remains an integral part of the project, its water quality implications on the primary (water supply) purpose/need should be more fully detailed in the final EIS.

1-H
1-I For other practical reasons the water supply and recreational basis of the project are working at cross purposes. As noted, recreation is greatly limited on water supply reservoirs, if allowed at all. Also, lakeside development is restricted, which usually excludes camping. Most reservoirs are designed to provide 75% of their volumes for water supply in times of low flow. Thus, water supply reservoirs often have greatly fluctuating water levels which further limits their recreational use. Interestingly, the DEIS notes that the selected alternative may not meet much of the recreational needs due to limited access. Yet, recreational use for the preferred alternative is incongruously projected to be very high.

hiking, camping, picnicking, and swimming facilities. However, the primary purpose of the proposed reservoir is for water supply; any recreational use that may occur at the reservoir would be an incidental benefit of the facility. Any areas within the Daniel Boone National Forest (DBNF) that have not yet been developed for recreation would require different and additional funding than that designated for the reservoir. Swimming needs may potentially be met by swimming pools constructed around Jackson County. However, swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes. Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A lake not only presents a more natural setting for swimming, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, construction of swimming pools around the County would also require different funding than that designated for the reservoir, and would likely come from local sources.

1-G: The primary purpose of the dam and reservoir project is to provide Jackson County with additional water supplies to meet current and projected needs. Recreation is a secondary purpose of the project, but as mentioned in Section 2.0 of the DEIS, not meeting the desire to have increased recreational opportunities would not exclude an alternative from further consideration. Therefore, recreation does not serve as a causal agent for elimination of alternatives in the EIS.

1-H: A discussion of water quality implications from recreational uses of the proposed reservoir is provided in Section 3.2.2.2, Environmental Consequences, Surface and Groundwater Resources, of this FEIS.

1-I: RUS acknowledges that, to some extent, the water supply and recreational functions of the proposed reservoir work at cross purposes. However, numerous reservoirs across the country provide both of these services. Refer to the response to comment 1-H. In addition, as discussed throughout the DEIS, development would be restricted within the buffer zone surrounding the reservoir. Recreational access to the War Fork and Steer Fork reservoir is discussed in Section 3.2.9.2.1, War Fork and Steer Fork, of the DEIS. Site access is not described in this section as being limited.

Comments on Jackson County Lake Project Draft EIS

Responses

4

ON-RESERVOIR ALTERNATIVES

1-J: The four non-reservoir alternatives addressed in the DEIS (groundwater, expansion of two existing Jackson County reservoirs, water supply from surrounding counties, and water conservation) were eliminated from further review because, “Each of these alternatives was investigated and found incapable of fully meeting the primary purpose and need of water supply and the secondary purpose and need of supplying lake-oriented outdoor recreation” (DEIS, p. 2-1). Yet, none of these alternatives appears to have been evaluated in conjunction with the others. For example, would groundwater AND water conservation measures meet water supply needs? This evaluation should be undertaken given the potential reduced water yield needs described previously.

1-K: The secondary purpose of recreation has already been largely discounted above; therefore, it should not serve as a basis for dismissal of alternatives.

RESERVOIR ALTERNATIVES

1-L: The site selection (evaluation) criteria for a water supply reservoir in Jackson County was based on an estimated yield of at least 3.5 million gallons of water per day (mgd). The legitimacy of this target yield has already been addressed. The evaluation of alternative reservoir locations was done in a manner that fundamentally excludes any and all other water supply, water harvesting, or water conservation efforts, and instead relies exclusively on a single source water supply source. Thus, the DEIS does not provide a logical and complete comparison of all feasible alternatives.

1-M: A pump storage option was only considered for one location. This approach involves locating a reservoir on a small stream adjacent to a large river and filling the reservoir from the river during high flows. The reservoir thus acts as a large raw water storage tank. Reservoirs of this design usually have much less overall environmental impact. In this regard it should be determined if Tyner Lake be converted to pump storage and thus increase its yield. Since pump storage reservoirs usually have much smaller watersheds than reservoirs that rely completely on a large watershed for yield, they are easier to protect from a water quality perspective.

PREFERRED ALTERNATIVE

The DEIS identifies the War Fork/Steer Fork River as the preferred site for reservoir construction. Incongruously, the impoundment structure would lie

1-J: Comment noted. Certain combinations of alternatives are considered in this FEIS. Water conservation has been incorporated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Water conservation is assumed to offset projected increases in water use due to population growth and rising per capita income. Due to the highly speculative nature of groundwater supplies in Jackson County (refer to Section 2.1.1, Groundwater Development, of the DEIS), a combination of groundwater and conservation would not be expected to meet even the revised projected water demands. This FEIS also examines the option of including McKee’s two reservoirs among Jackson County’s water supply facilities.

1-K: As mentioned in Section 2.0 of the EIS, not meeting the desire to have increased recreational opportunities would not exclude an alternative from further consideration. Therefore, recreation does not serve as a causal agent for elimination of alternatives in the EIS.

1-L: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

1-M: Pumped storage alternatives were reevaluated in this FEIS. Please refer to Section 2.0, Alternatives Including the Proposed Action, and Section 3.0, Environmental Analysis, of this FEIS for more information.

Comments on Jackson County Lake Project Draft EIS

Responses

5

approximately one-half mile upstream of a river segment that the U.S. Forest Service (USFS) has recommended (to the Department of Interior/National Park Service) for inclusion in the National Wild and Scenic River system. The proposed impoundment and operation of the water control structure will adversely affect its scenic river status by altering the hydroperiod, and thereby negatively influencing the existing aquatic ecology and faunal composition.

1-N

For example, under average flow conditions, an impoundment would reduce downstream flows by 32% (Table 3.2.2.-2). Downstream flows would be further reduced by 61% during "average drought conditions" and up to 97% during "worst drought conditions." Since the degree of reduction for all scenarios is so dramatic, the characterization that it will only produce "moderate" biological impacts needs to be explained.

1-O

The DEIS cites the 7Q10 discharge as the proposed minimum sustained low flow leaving the reservoir. As noted, EPA is concerned that such minimal flows will not sustain existing biotic communities in War Fork and, in turn, would adversely affect its nomination into the National Wild and Scenic River System. According to Walker (1994), the USFS considers War Fork to have among the best water quality and other physical features that can be found in a karst-dominated watershed in the Commonwealth. As pointed out by Evans and England (1995), establishing historic low flows as the acceptable minimum tends to perpetuate and legitimize worst-case conditions and likely limits the biotic community to whatever the most degraded habitat can support.

1-P

The DEIS fails to account for any mitigation of adverse impacts to affected stream segments, i.e., direct/indirect effects of impoundment construction together with inundation impacts. All adverse stream impacts will require mitigation commensurate with the Clean Water Act, Section 404 permit process. Presently, the aquatic biological resources of the proposed project area are not fully described/accounted for, and neither is the actual stream length which will be inundated. After determination of the least damaging alternative, a mitigation plan must be offered by the applicant for review/comment during the Section 404 permitting process.

For future reference in this regard, the high quality of War Fork and Steer Fork will require significant off-site mitigation to compensate for the alteration of these environs from lotic to lentic water habitat. The deleterious effects of dams on downstream aquatic ecosystems is well documented in the literature, and compensatory mitigation will necessarily account for such impacts due to alteration of the streams' hydroperiod, sediment transport, and organic matter

1-N: The values presented in Table 3.2.2-2 of the DEIS are subject to change, as noted in Section 3.2.2.2, Environmental Consequences, of this FEIS. Please refer to this section for a discussion on these values. The status of the Wild and Scenic Study River segment of War Fork should not be affected by regulated flows because the U.S. Forest Service (USFS) has proposed a "Scenic" classification for this segment. This classification is further described in Section 3.2.2.1.1, War Fork and Steer Fork, of the DEIS.

1-O: The minimum discharge from the dam during low flow periods has been changed for this FEIS. Please refer to Section 3.2.2.2, Environmental Consequences, of this FEIS for a discussion on this change.

1-P: A jurisdictional waters determination is included in this FEIS as Appendix U. At the proposed War Fork and Steer Fork project site, approximately three miles of jurisdictional waters would be inundated by the proposed reservoir. Mitigation measures for adverse impacts to these waters, including wetlands, would be negotiated as part of the Section 404 (Clean Water Act (CWA)) permitting process with the U.S. Army Corps of Engineers (USACE) and other participating agencies, potentially including the Kentucky Division of Water (KDOW), the U.S. Environmental Protection Agency (EPA), and the U.S. Fish and Wildlife Service (USFWS), if this alternative is chosen as the action to be taken.

Comments on Jackson County Lake Project Draft EIS

Responses

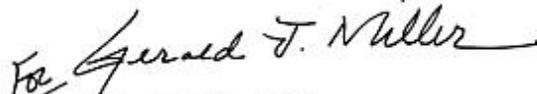
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cycling.

- 1-Q: Multi-level water intakes offer enhanced flexibility in a multiple purpose reservoir. While these devices are mentioned, there is no commitment as to their installation. While we agree that the proposed variable depth penstock is a good design feature, there should be an accompanying plan in the final document to select the appropriate depths for reservoir release. This determination often involves the monitoring of upstream water quality.
- 1-R: There are some questions regarding potential impacts to threatened/endangered species which will need to be resolved before this proposal begins construction. We understand that additional studies are currently being undertaken. The results of same should be made available in the final EIS.
- 1-S: The narrative characterizations of the alternatives need to have greater specificity, viz., quantitative comparisons of the impacts of the various alternatives on flow, DO, temperature, wetlands (in acres) and streams (in linear feet). This is standard practice for documenting the effects of water supply reservoir proposals.
- 1-T: The specific steps (other than a buffer) which will be taken to protect the immediate watershed of the reservoir need to be enumerated in the final EIS. It appears there may be residential development around the preferred alternative which would be problematic from a long-term water quality perspective.
- 1-U: The presence of lead in any drinking water source is always a concern. This matter needs to be examined further in the final document.

Based on the direct impacts cited in the document, we have assigned a rating of EC-2. That is, we have some environmental concerns about the long-term consequences of this action and request some additional information about the above issues. If we can be of further assistance, Dr. Gerald Miller (404-562-9626) will serve as initial point of contact.

Sincerely,

For 
 Heinz J. Mueller, Chief
 Office of Environmental Assessment

- 1-Q: It would be premature, at this time, to present a plan for the proposed multi-level water intake. Such a plan would only be developed if a reservoir is chosen as the action to be taken, and the engineering design phase for the proposed dam and associated structures is undertaken. However, it should be noted that the project proponents, as well as RUS, have firmly asserted a commitment to the use of a multi-level water intake.
- 1-R: The results of the surveys for Federally-listed threatened and endangered species are provided in this FEIS as Appendix T.
- 1-S: Qualitative predictions of likely changes in dissolved oxygen (DO) and temperature downstream of the proposed reservoir were discussed in Section 3.2.2.2, Environmental Consequences, of the DEIS. Quantifying such predictions (i.e., how many degrees change in temperature and how many milligrams per liter change in DO) is hampered by a lack of specific information on design features and permit conditions that would be imposed by KDOW. If permit conditions dictate no change in water temperature between inflow and outflow, a multi-level intake could largely facilitate this. If DO must be maintained above a specified minimum, several methods exist for doing so. These features can be imposed by the State in the permitting process. Please refer to the response to comment 1-P.
- 1-T: RUS cannot dictate the development of watershed planning or land management for water quality protection of the reservoir. Most of the land surrounding the preferred War Fork and Steer Fork site (3.5 mgd) is public land managed by the USFS. USFS management of these lands would severely restrict residential development in the immediate vicinity of the reservoir. The USFS would conduct an environmental assessment (EA) on the land exchange or Special Use Permit (SUP) necessary for this alternative, if it is chosen as the action to be taken. As part of the EA on the land exchange, USFS may investigate the option of retaining ownership of the buffer zone around the lake, and acquiring ownership of privately-owned land within the buffer zone.

Comments on Jackson County Lake Project Draft EIS

Responses

References

Evans, J.W. and R.H. England. 1995. *A Recommended Method to Protect Instream Flows in Georgia*. Georgia Department of Natural Resources, Wildlife Resources Division, Social Circle, GA. 51 pp.

Walker, J. 1994. *War Fork Water Resource Inventory*. U.S.D.A., Forest Service, Daniel Boone National Forest.

Calculations: Given that y = Jackson County necessary yield, and y was increased by 60% to account for other water utilities, then

$$1.6y = 3.5 \text{ mgd}$$

$$y = 1.86 \text{ mgd}$$

$$1.86 \text{ mgd} - (18,477 \text{ persons} \times (67-52 \text{ g/p/d})) = 1.58 \text{ mgd}$$

$$1.58 \text{ mgd} + (60\% - 17.8\%) = 2.25 \text{ mgd}$$

$$2.25 \text{ mgd} \times 80\% \text{ (water conservation savings)} = 1.8 \text{ mgd}$$

1-U: As discussed in Section 3.2.2.2, Environmental Consequences, of the DEIS, State regulations require the water in the reservoir to be tested prior to withdrawals. If lead or any other contaminant exceeds drinking water standards, the processes used at the water treatment plant would be modified accordingly. The continual monitoring and sampling required by State law and regulation would ensure that all potable water reaching consumers is safe.

Comments on Jackson County Lake Project Draft EIS

Responses



United States Department of the Interior

OFFICE OF THE SECRETARY
 OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE
 Richard B. Russell Federal Building
 75 Spring Street, S.W.
 Atlanta, Georgia 30303

June 29, 2000

ER-00/408

Mark S. Plank
 USDA, Rural Utilities Service
 Engineering and Environmental Staff
 1400 Independence Ave., MS 1571
 Washington, DC 20250

Dear Mr. Plank:

The Department of the Interior has reviewed the draft EIS for the Jackson County Lake Project, Jackson County, KY, as requested.

- 2-A The draft environmental impact statement (DEIS) adequately describes the alternatives that are currently under consideration, and those that have been eliminated from further consideration. It also describes the majority of potential impacts from construction and mitigation/protective measures that will be implemented to avoid or minimize those impacts. Adverse, project-related effects to the federally endangered Indiana bat (*Myotis sodalis*), Virginia big-eared bat (*Corynorhinus townsendii virginianus*), and running buffalo clover (*Trifolium stoloniferum*) that might result from implementation of the preferred alternative are not addressed. However, the DEIS does indicate that surveys are being conducted or continued to determine if these listed species occur in the project impact area.
- 2-B
- 2-C The DEIS indicates that, because of the presence of federally listed species or designation as scenic rivers, several impoundment alternatives have been dropped from further consideration. We agree with the decision to drop the Laurel Fork, Horselick Creek, and Station Camp Creek alternatives.
- 2-D We recommend that the final environmental impact statement contain a full description of the potential effects to the Indiana bat, Virginia big-eared bat, and running buffalo clover, from implementation of the selected alternative, and protective measures that will be implemented to avoid or minimize those effects. Furthermore, we recommend that, prior to a final decision, a biological assessment be submitted to the U. S. Fish and Wildlife Service, Cookeville Field Office, for review and concurrence. The assessment should contain the results of the surveys and determinations of effect for each of the listed species.
- 2-E

2-A: Comment noted.

2-B: Based on what was known at the time the DEIS was released about the occurrence of Federally-endangered Indiana bats and Virginia big-eared bats at the proposed reservoir sites, it was concluded that the project would not likely adversely affect either species at any of the proposed sites. No specimens of either endangered bat species were found in mist-netting and other surveys, including summer cliffline and winter habitat surveys, at the proposed project sites. Moreover, no hibernacula were discovered within the footprints of any of the proposed impoundments. However, it was noted that both the USFS and the USFWS believe these two bat species likely utilize riparian corridors within at least the proposed War Fork and Steer Fork project site as summer foraging habitat.

It was reasoned in the DEIS that permanently flooding about 116 acres of forestland would probably not harm the species if they were present at the War Fork and Steer Fork project site in the summer months. The rationale for this conclusion is based on the flexibility in the feeding habits of the species, including evidence that they feed above impoundments, and on the likelihood that foraging habitat is not the limiting factor for local populations.

Field surveys for the running buffalo clover were completed in the spring of 2000 and found no specimens of the species at any of the proposed project sites. Bat surveys were completed in the summer of 2000 and found no Indiana bats or Virginia big-eared bats at any of the proposed project sites. These surveys are included in this FEIS as Appendix T.

2.C: Comment noted.

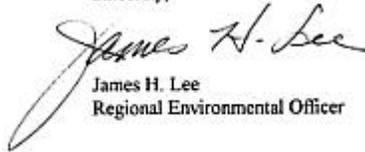
2-D: The FEIS, in Appendix T, contains the complete, final report on these three Federally endangered species. Potential effects are described. In sum, effects on the running buffalo clover would be non-existent because it is not present on any of the proposed reservoir sites; effects on the Indiana bat and Virginia big-eared bat would not be adverse, because none were captured during mist-netting conducted in the summers of 1999 and 2000, and no known

Comments on Jackson County Lake Project Draft EIS

Responses

If there are any questions regarding fish and wildlife resources, please contact Jim Widlak at 931/528-6481, ext. 202, or Bruce Bell at 404/679-7089.

Sincerely,



James H. Lee
Regional Environmental Officer

hibernacula would be inundated by the project.

2-E: If a reservoir is chosen as the action to be taken, and the War Fork and Steer Fork site is chosen as the final project location in the USDA, RUS Record of Decision (ROD), additional National Environmental Policy Act (NEPA) analysis and documentation would be conducted in conjunction with the USFS and USACE actions. The USFS would provide appropriate NEPA coverage for its land exchange and/or SUP. It is anticipated that a Biological Assessment (BA) and Biological Evaluation (BE) would be prepared concurrently with this NEPA documentation.

Comments on Jackson County Lake Project Draft EIS

Responses

TO: Mark Plank
 Senior Environmental Scientist
 USDA Rural Utilities Service
 Engineering & Environmental Staff
 Mail Stop 1571
 1400 Independence Avenue, SW
 Washington, DC

From: Jerry Sparks
 Biologist
 CELRL-OP-FS
 P.O. Box 489
 Newburgh, IN 47629-0489

Subject: Draft EIS for Proposed Lake in Jackson County, KY

Date: July 10, 2000

I have completed a review of the draft EIS for the above referenced project. The Corps of Engineers exercises regulatory jurisdiction on both War Fork and Sturgeon Creek under the Clean Water Act (CWA). It is unlawful under Section 301 of this Act (33 USC 1311) to place dredged or fill material into "waters of the United States" without prior authorization. Normally, the authorization is in the form of a Department of the Army (DA) permit issued in accordance with the provisions of Section 404 of the CWA (33 USC 1344). Since this project would involve the discharge of dredged or fill material, it will be necessary for the Corps to evaluate your proposed activity under the Section 404 (b) (1) guidelines prepared by the Environmental Protection Agency. It would seem that the most efficient way for the federal government to address this project is for the documentation in the EIS to address as many of the section 404 Clean Water Act concerns as possible. This would expedite all phases of the proposal and lead to a more efficient process for the applicant. The following comments are thus offered.

The guidelines restrict discharges into aquatic areas where less environmentally damaging, practicable alternatives exist. With this in mind, documentation needs to be supplied for the non-reservoir alternatives which would convincingly exclude them before this preferred alternative discharge could be authorized. I have found that the documentation within the draft EIS upon which these non-reservoir alternatives have been excluded is not very robust. There are references to e-mails and other information that are not provided. It is impossible to evaluate these conclusions without their supporting documents.

The Corps must prepare a permit decision document which includes a discussion of the environmental impacts of the project, the findings of the public interest review process, and any special evaluation required by the type of activity such as compliance determinations with the 404 (b) (1) guidelines. The draft EIS process has made substantial progress toward addressing the issues involved in our permitting process. However, I feel like that some of the potential environmental consequences have not been adequately addressed. A number of these were included under "ISSUES TO BE RESOLVED" (page xix). Although we share the concerns raised by these issues, we will refrain from discussing them here since you have obviously identified them as issues needing resolution. However, as noted, the

3-A

3-B

3-C

3-A: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

3-B: Emails and other forms of correspondence, which were referenced throughout the EIS, are part of the administrative record for this project.

3-C: Some of the issues included under "Issues To Be Resolved" in the Executive Summary of the DEIS have been investigated and included in this FEIS. The remaining issues will be addressed at upcoming stages of the project, including the engineering design phase, permitting, and approval.

Comments on Jackson County Lake Project Draft EIS

Responses

3-D

proposed dam for War Fork lies just upstream of a stream segment recommended by the U.S. Forest Service to the Department of Interior/National Park Service to be included in the National Wild and Scenic River System as a Scenic River. The proposed impoundment and operation of the water control structure will have consequences on this downstream reach which need to be more thoroughly evaluated. River form, fluvial processes, and biotic ecosystems tend to evolve simultaneously and operate through mutual adjustments toward stabilization. It is unclear at this point what consequences this reservoir and its regulation may have on the dimensions, patterns, profile, and habitat structures of the downstream reach. This needs to be elaborated on within the context of the EIS. The specific aquatic biological resources of the proposed project area need to be accounted for and there need to be compensatory mitigation offered for the unavoidable impacts to these resources. I recommend that we arrange an interagency meeting to discuss these issues in more detail before the final EIS is prepared. Please contact me at your earliest convenience and we will discuss these issues.

3-E

- 3-D: Any additional evaluations or specific studies that would be necessary to obtain a USACE, Section 404/Section 10 Permit are being deferred until a final decision is made regarding the proposed action.
- 3-E: A full wetlands delineation, based on the 1987 USACE manual, has been conducted for this FEIS, and is included as Appendix U. Any additional evaluations or proposals for compensatory mitigation for unavoidable impacts to aquatic biological resources that would be necessary to obtain a USACE, Section 404/Section 10 Permit are being deferred until a final decision is made regarding the proposed action.

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 RILLY RD
FRANKFORT KY 40601

MEMORANDUM

TO: Alex Barber
State Environmental Review Officer
Department for Environmental Protection

FROM: Timothy Kuryla TK
EIS Coordinator
Division of Water

DATE: July 27, 2000

SUBJECT: DEIS, Impoundment on War Fork, Daniel Boone National Forest (Jackson County), SERO 000522-38

Attached are the Division of Water comments on the Draft Environmental Impact Statement prepared by the U.S. Department of Agriculture regarding an impoundment on War Fork in the Daniel Boone National Forest near Turkey Foot (Jackson County).

c: Leon Smothers, Water Resources Branch
William Sampson, Water Quality Branch
Tom Van Arsdall, Water Quality Branch



Comments on Jackson County Lake Project Draft EIS

Responses

**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
ENVIRONMENTAL REVIEW**

Division of Water

Project Number: 000522-38

Project Title: DEIS, Impoundment on War Fork, Daniel Boone National Forest (Jackson County)

The Division of Water has reviewed the Draft Environmental Impact Statement prepared by the U.S. Department of Agriculture (USDA) regarding an impoundment on War Fork in the Daniel Boone National Forest near Turkey Foot. The Division's comments address matters the Division desires considered in the Final EIS.

IN GENERAL

4-A War Fork from RM 0.0 to RM 13.2 near Privett is in the Nationwide Rivers Inventory (NRI). NRI stream segments are candidates for designation as wild, scenic, or recreational rivers under the federal Wild and Scenic Rivers Act (16 USC §1271 et seq.). Normally, no activity can harm the candidate segment's status.

4-B SAI KY9706260708 was an application by the Jackson County Water Association (JCWA) for USDA funding of an impoundment on Laurel Fork, an intake, and a raw water distribution line to connect to the JCWA plant and reservoir located near Flat Lick Church, Flat Lick Creek, RM 2.0. The Division of Water nonendorsed SAI KY9706260708 because of the presence of *Villosa trabilis* at approximately RMs 0.65 and 2.25. *Villosa trabilis* is classified under 50 CFR Pt 17 as an endangered species. The entire length of Laurel Fork is classified under 401 KAR 5:031, Section 7(2)(b) as an Outstanding Resource Water (ORW). This category is used where waters support federally threatened and endangered species.

EXECUTIVE SUMMARY

Purpose and Need

Page iv

4-C The Division of Water notes that the Kentucky Population Research (KPR) program mentioned in paragraph 1 is at the University of Louisville not the University of Kentucky.

4-A: As stated in the *Final Wild and Scenic Rivers Suitability Study and Environmental Impact Statement For Six Rivers on the Daniel Boone National Forest* (USFS, 1996), the segment of War Fork of Station Camp Creek that was found eligible for inclusion in the Nationwide Rivers Inventory (NRI) is a 7.1 mile section from Turkey Foot Campground to the mouth of the south Fork of Station Camp Creek.

4-B: Laurel Fork was investigated in the *Jackson County Lake Project Alternatives Analysis* as a potential location for the proposed reservoir. This site was eliminated from further consideration due to the presence of a Federally-listed endangered species, the Cumberland Bean Pearly Mussel (*Villosa trabilis*), within the proposed project area. The portions of Laurel Fork that were investigated were also designated by the State of Kentucky as Outstanding Resource Waters (ORW).

4-C: The commenter is correct in noting that the Kentucky Population Research (KPR) program is at the University of Kentucky, not the University of Louisville as stated in the Executive Summary for the DEIS.

Comments on Jackson County Lake Project Draft EIS

Responses

SERO 000522-38
Page 2

1 INTRODUCTION
1.2 PURPOSE & NEED FOR ACTION
1.2.1 Water Supply
1.2.1.1 Historical Demands
Jackson County Water Association (JCWA) Pages 1-8 & 1-9

4-D In paragraph 4 (Page 1-8), the DEIS states that at a demand of 700,000 gallons per day (GPD), Tyner Lake would experience fluctuation of 26 feet in pool elevation. If an average year is meant, then this figure is high. For the FEIS, the preparers need either to reword this statement or to provide justification for the figure of 26 feet.

4-E Regarding Figure 1.2-3 (Page 1-9), in Step 5, the process indicates that water demand is increased by 17.8 percent for water to be provided to Berea College. However, Table 1.2-5 (Page 1-13) indicates that Berea College will only be interested in a water supply near Madison County. (The Division of Water observes that Berea College operates a water treatment plant that serves it and the City of Berea.) The proposed War Fork dam is approximately 26 miles from Berea. The Division of Water does not believe that Berea College considers the War Fork site near Madison County, especially when the rugged terrain is taken into account.

The fact that a multiplier (17.8 percent) is being used for Berea College's needs indicates that all of the assumptions used in demand calculations about increased residential, industrial, and commercial needs are being applied to the College. The DEIS preparers need to provide justifications for these assumptions in the FEIS.

4-F Regarding Figure 1.2-3 (Page 1-9), in Step 6, the process multiplies by 15 percent to provide for unaccounted water. However, the Public Service Commission (PSC) number, used by the DEIS preparers for average residential use, already includes about 14 percent for unaccounted water. The Division of Water believes the numbers used by the DEIS preparers for commercial and industrial needs include values for unaccounted water. Step 6 needs to be eliminated in the FEIS.

1.2.1.2.1 Projected Water Consumption Rates Pages 1-10 & 1-11

4-G The Division of Water believes the unit numbers used by the DEIS preparers for developing demand are high. There is no justification given for substituting the PSC's number of 67 gallons per person per day (GPPD) for the actual use in Jackson County of 54 GPPD.

With the increasing water efficiency of modern appliances and the potential for some water conservation activities in the area, the use of 67 GPPD without a justification for this 24 percent increase in water use is unreasonable. The preparers need to provide this justification in the FEIS.

4-D: Based on JCWA weekly monitoring of Tyner Lake/Lake Beulah from December 1999 through September 2000, lake drawdown reached a maximum of 16.5 feet, and the lake level (MSL) fluctuated a couple of feet. The commenter is correct in noting that the figure of 26 feet given in the Final Water Needs Analysis in the DEIS is high. Since this figure does not impact the revised water needs analysis presented in this FEIS, a text change has not been made for this correction. Comment noted.

4-E: Berea College's projected water needs were removed from the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.

4-F: Figures for water consumption from the Kentucky Public Service Commission (PSC) are based on customer billing data and do not include line losses (Lee, 2000). Appendix B, Water Rate Calculations, of Appendix E, *Final Water Needs Analysis*, of the DEIS provides computations of per capita use rates for Jackson County and for the Kentucky PSC. As shown by these tables, residential per capita water use rates, as well as commercial and industrial use rates, do not include line losses or unaccounted for water.

4-G: Please refer to Section 1.2.1.2.1, Projected Water Consumption Rates, of this FEIS for an explanation of the value used for residential per capita water use. A water conservation factor of 10 percent was calculated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Please refer to this section for more information.

Comments on Jackson County Lake Project Draft EIS

Responses

SERO 000522-38
Page 3

4-H Regarding the values for commercial water use, the Division of Water does not believe that commercial usage will have much of an impact on cumulative water demand. The Division does object to industrial water use value of 1,000 gallons per acre per day (GPAPD). The DEIS says this value is used by the City of Louisville Jefferson County Metropolitan Sanitation District (MSD). Jefferson County attracts extremely high water using industries based on Jefferson County being a metropolitan area, having exceptionally good access to road, rail, and river transportation, and having the Ohio River as a major water source. Jackson County is not comparable in commercial water usage to Jefferson County. The Division believes a good median industrial water value for Jackson County would be 100 with a peak of 300 GPAPD.

1.2.2 Recreation Needs **Pages 1-17 to 1-20**

4-I The recreational value of a 118 acre lake had not been projected in the DEIS. Instead, at the time the analysis was done, it was thought that the lake would be 300 acres in size. Consequently, recreational benefits of the 340 acre Martins Fork and larger lakes are presented in the DEIS. The FEIS must address the recreational benefits of a 118 acre lake.

2 **ALTERNATIVES INCLUDING THE PROPOSED ACTION**
2.1 **NON RESERVOIR ALTERNATIVES ELIMINATED**
2.1.3 **Water Supply From Surrounding Counties** **Pages 2-5 to 2-9**

4-J The temporary withdrawal on Laurel Fork is being built with a 12 inch diameter water distribution line with the potential of it being extended, as a permanent solution, to the Middle Fork Rockcastle River. The alternative of using an existing line to Laurel Fork and extending it less than the distance mentioned in any other alternative needs to be discussed in the FEIS. This extension alternative cost needs to be compared with cost of the 9.5 miles of pipeline required for the War Fork reservoir plus construction of the reservoir.

2.1.4 **Water Conservation** **Pages 2-9 & 2-10**

4-K In paragraph 1 (Page 2-9), the DEIS says there is not much opportunity to conserve water in Jackson County because the use rate, 54 GPPD, is less than the PSC's 67 GPPD. The Division of Water finds no logic in this contention. First, there is almost certainly some degree of water conservation available in Jackson County. Second, the demand study uses 67 GPPD instead of 54 GPPD. Thus, given the increased use of water efficient appliances and efforts of the local community to keep water waste (or unwise water use) to a minimum, the Division finds it very likely that future use will be 54 GPPD or less.

4-H: The revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS does not include the low, medium, and high growth scenarios used in the *Final Water Needs Analysis* of the DEIS. Instead, only the most probable water needs scenario, which includes most probable commercial and industrial water use rates, was calculated. Please refer to Section 1.2.1 for more information.

4-I: The commenter is correct in that most of the alternatives investigated in the DEIS and in this FEIS are smaller than 300 acres in size. The recreational benefits discussed in Section 1.2.2, Recreational Needs, of the DEIS may, therefore, be proportionately smaller for some of the reservoir alternatives investigated than for the 300-acre lake model in the analysis. However, the recreational needs of Jackson County and the region are the same as those presented in this section. Regardless of size, if a reservoir is chosen as the action to be taken, the reservoir would help to meet some of the recreation needs projected in the analysis.

4-J: The alternative of using the temporary withdrawal on Laurel Fork with an extension to the Middle Fork of the Rockcastle River as a permanent solution to meeting Jackson County's water needs was evaluated and eliminated from further study in this FEIS. Please refer to Section 2.1.5, Pumped Storage From Laurel Fork and Middle Fork, of this FEIS.

4-K: A water conservation factor of 10 percent was calculated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.

Comments on Jackson County Lake Project Draft EIS

Responses

	<p>SERO 000522-38 Page 4</p> <p>2.4 PROPOSED ACTION Page 2-20</p> <p>Because the proposed project will result in a discharge of dredge or fill material into:</p> <ul style="list-style-type: none"> • 200 linear feet of any "blue line" stream (as shown on the U.S. Geological Survey 7.5 minute topographical map for the project area), or, • One acre or more of any wetland, <p>then a 33 USC § 1341 ("401") water quality certification by the Division of Water for the U.S. Army Corps of Engineers and a 33 USC § 1344 ("404") dredge or fill permit must be obtained. The FEIS must address these requirements.</p> <p>2.4.1.1 Site Description 2.4.1.1.1 War Fork & Steer Fork Pages 2-22 to 2-25</p> <p>The preferred alternative is an impoundment on War Fork Creek. The DEIS (2.4.1.1.1, Page 2-22) states the proposed dam site is to be located at approximately 0.5 mile southwest of Turkey Foot with the dam 0.75 mile north of the Steer Fork confluence with War Fork. According to a Division of Water copy of the McKee quadrangle topographical map, Turkey Foot is located at approximately War Fork, River Mile (RM) 7.5. The Steer Fork confluence is approximately War Fork, RM 8.4. If the dam site is 0.5 mile SW of Turkey Foot, this would place the dam at approximately War Fork, RM 8.0. If the dam is 0.75 mile north of the Steer Fork confluence, the site would be approximately War Fork, RM 7.65. These two sites are approximately 0.35 mile apart. Figure 2.4-1 (Page 2-23) appears to corroborate the War Fork, RM 8.0, site. The site needs to be clarified in the FEIS.</p> <p>Regarding Figure 2.4-1 (Page 2-23), the stipulated legend for the buffer area does not appear on the Figure. This omission needs to be corrected in the FEIS.</p> <p>2.4.1.3 Facility Construction Pages 2-34 to 2-37</p> <p>A floodplain construction permit is required from the Division of Water for the proposed project. Nothing in paragraph 8 (Page 2-36) makes reference to this requirement. The FEIS must contain in this paragraph a statement that a Division permit is required in order to construct the impoundment. (The permitting requirement is mentioned 3.2.11.2, Dam and Reservoir, paragraph 14 [Page 3-184] and in 3.2.2.2, Raw Water Transmission Main, paragraph 4 [Page 3-56]; but this requirement needs to be mentioned here.)</p>	<p>4-L: The requirement to obtain a Section 401 water quality certification and a Section 404 dredge or fill permit has been added to Section 2.4.1, Proposed Action, Dam and Reservoir, of this FEIS. Both the Section 401 certification and Section 404 permit are listed in Section 6.0, Regulatory Compliance, of the DEIS. Section 404 permits are discussed in detail in Section 3.2.2, Surface and Groundwater Resources, of the DEIS.</p> <p>4-M: The dam at the War Fork and Steer Fork site would be located approximately 0.5 miles southwest of Turkey Foot Campground, or about 0.3 miles southwest of Turkey Foot Road, measured in straight air miles. The Steer Fork confluence with War Fork would be 0.5 air miles southwest of the dam site. Measured in River Miles (RM), these distance would be greater due to bends in the stream. These distances are now specified as measured in air miles in this FEIS.</p> <p>4-N: The commenter is correct in noting this omission. However, for this purposes of this FEIS, this figure is not being reproduced.</p> <p>4-O: Reference to a Floodplain Construction Permit has been made in Section 2.4.1.3, Facility Construction, of this FEIS.</p>
4-L		
4-M		
4-N		
4-O		

Comments on Jackson County Lake Project Draft EIS

Responses

SERO 000522-38
Page 5

4-P During impoundment, as in operation, the outflow must equal the inflow during low flow periods. The 7Q10 of 0.03 cubic feet per second (CFS) will be a rare occurrence. Required outflows will be much higher than 7Q10 during most of the low flow season.

4-Q The boat dock flotation must consist of plastic barrels or metal pontoons to reduce the persistent floating debris caused by foam flotation devices.

4-R The Division of Water prefers a centrally located restroom facility of the no discharge type such as a composting or incinerating toilet. This type of facility eliminates the need for a Kentucky Pollutant Discharge Elimination System (KPDES) permit, the associated permit reporting and costs, and the problems with intermittent use and proper operation and maintenance (including operator certification) of a package sewage treatment plant. A no discharge facility also eliminates costs associated with proper operation and maintenance of an onsite wastewater disposal system (septic tank and lateral fields).

2.4.1.3.1 War Fork & Steer Fork Pages 2-37 & 2-38

4-S With regard to paragraph 3 (Page 2-38), the required minimum release will be higher than 7Q10. This means that time needed to fill the impoundment would be somewhat more than the 5 months stated in the DEIS.

3	<u>ENVIRONMENTAL ANALYSIS</u>	
3.2	<u>DAM, RESERVOIR, AND RAW WATER TRANSMISSION MAIN</u>	
3.2.1	<u>Geology-Soils</u>	
3.2.1.2	<u>Environmental Consequences</u>	Pages 3-27 & 3-28
3.2.2	<u>Surface & Groundwater Resources-Quantity & Quality</u>	
3.2.2.2	<u>Environmental Consequences</u>	Pages 3-47 & 3-48
	<u>Dam & Reservoir</u>	Pages 3-48 to 3-55

4-T Under Dams and Reservoirs paragraph 10 (Page 3-50), the DEIS preparers need to note in the FEIS that the values in Table 3.2.2-2 (Page 3-50) are subject to change depending upon the conditions of the Water Withdrawal Permit (WWP) issued by the Division of Water. In issuing the WWP, the Division will examine downstream uses and impacts (some of which are referenced in 3.2.2.2.1, Dam & Reservoir, paragraph 5 [Page 3-75]) and the flows needed to protect the environment in order to develop the required release rates (referenced in Dam & Reservoir, paragraphs 12 and 13 [Page 3-51]). The DEIS preparers appear to think that the 7Q10 rate of 0.03 CFS is all that would be required.

During impoundment, the flow will not be reduced to 7Q10 except when the natural flow is 7Q10. Thus, the calculations in Table 3.2.2-2 (Page 3-50) for low flow conditions are incorrect and must be revised for the FEIS.

4-P: This change has been incorporated in the FEIS. Please refer to Section 2.4.1.3, Facility Construction, of this FEIS.

4-Q: Changes were made to incorporate this type of boat dock flotation into Section 2.4.1.3, Facility Construction, of this FEIS.

4-R: The KDOW preference for a no discharge type restroom facility has been asserted in this FEIS in Section 2.4.1.3, Facility Construction, and Section 3.2.10, Waste Management.

4-S: This change has been noted in this FEIS. Please refer to Section 2.4.1.3.1, War Fork and Steer Fork, of this FEIS. This change has also been noted for the Sturgeon Creek, 8.5 mgd and 3.5 mgd alternatives.

4-T: These changes have been incorporated in Section 3.2.2.2, Environmental Consequences, of this FEIS. Please refer to that section of this FEIS.

Comments on Jackson County Lake Project Draft EIS

Responses

SERO 000522-38
Page 6

4-U

War Fork from RMs 2.0 to 8.5 is designated under 401 KAR 5:026 as a Cold Water Aquatic Habitat (CAH) use. If the proposed impoundment is implemented, this means 0.5 or 0.85 RMs (see the above discussion regarding 2.4.1.1.1) of CAH would be lost. Below the dam, the CAH use must be continued, that is, the operation of the reservoir must maintain the viability of the trout stream.

4-U: If a reservoir is chosen as the action to be taken, and the War Fork and Steer Fork site is chosen as the project location, maintaining the viability of the downstream trout fishery would likely be a requirement instituted during the KDOW permitting process. Flows, DO levels, and water temperatures could all be controlled to achieve this goal. The project proponents are committed to working with the KDOW and the Kentucky Department of Fish and Wildlife Resources during implementation of the proposed project.

4-V

Because the lake will be relative deep (82 feet at the dam), it will stratify during the summer. The result will be low levels of dissolved oxygen (DO) in the colder hypolimnion. A selective or multiport withdrawal system will likely allow the desired outflow water temperatures to be achieved. However, the outflow DO levels will have to be enhanced by some means such as aerators, physical steps, or weirs. These actions are needed to maintain the CAH use. The means of maintaining proper temperatures and DO levels need to be discussed in the FEIS.

4-V: It is the intent of the project proponents to install a multi-level or multi-port intake to be able to exercise some control over the values of the water quality parameters in question in the water released downstream. As the commenter notes, outflowing DO levels may require enhancement by aerators, physical steps, weirs, or other means. The specific device(s) for doing so would begin to be developed in the permitting process with KDOW, and would be further developed and finalized when the project plans and specifications are finalized.

4-W

Development around the lake (campground, parking lot, shoreline lots, onsite wastewater disposal, package sewage treatment, and so forth) will cause nutrient input to the lake. This can result in algae densities that will cause the lake to stratify at shallow depths and will exacerbate the DO problem in the hypolimnion. All available steps must be taken to ensure that nutrient input to the lake, due to development, is kept to a minimum.

4-W: It is very much in the interest of the project proponents, managers, and beneficiaries to ensure that nutrient inputs to the lake from surrounding land uses, including recreational infrastructure and activities, are minimized. No sewage would be permitted to flow into the lake. No shoreline lots would be permitted, as the 300-foot buffer zone surrounding the proposed reservoir would restrict such development. Runoff from the parking lot and/or campground would be handled by drainage controls and best management practices (BMP). Specific measures to reduce nutrient input into the reservoir would also be developed in cooperation with KDOW.

4-X

A reservoir model is needed to predict lake conditions and the measures necessary to achieve the desired water temperature and DO levels in the outflow, and thereby ensure the CAH use in War Fork.

4-X: Development of a reservoir model to predict lake conditions and the measures necessary to achieve the desired water temperature and DO levels in the outflow from the dam would be premature at this time. Once a decision is made on the action to be taken, and if that action involves the construction of a reservoir, development of such a model, if necessary, would be addressed at upcoming stages of the project, including the engineering design phase, permitting, and approval.

3.2.4 Biological Resources
3.2.4.2 Environmental Consequences **Pages 3-85 & 3-86**

4-Y

The Division of Water notes that the biodiversity of a natural stream ecosystem is greater than that of a lake ecosystem.

3.2.6 Recreation
3.2.6.2 Environmental Consequences
3.2.6.2.4 No Action **Page 3-115**

4-Z

In paragraph 2 sentence 4 (Page 3-115), it is stated, "Area residents would continue to travel farther for their recreation." This is only true of flat water recreation. 3.2.6 does not explore the potential for increased recreation in and along War Fork, Steer Fork, or Sturgeon Creek (and their associated riparian areas) in their present free flowing condition. Flat water recreation seems to be *a priori* better than free flowing water recreation.

Comments on Jackson County Lake Project Draft EIS

Responses

<p>4-AA</p> <p>4-BB</p> <p>4-CC</p> <p>4-DD</p> <p>4-EE</p> <p>4-FF</p>	<p>SERO 000522-38 Page 7</p> <p>3.2.11 Human Health & Safety 3.2.11.2 Environmental Consequences Pages 3-181</p> <p>The Division of Water finds it hard to evaluate the impacts around the lake when there is no plan available for the buffer zone. The Division prefers the buffer zone be a place where no development is allowed not just restricted. To protect the lake, it would be best if the U.S. Forest Service (USFS) retained ownership of the land it presently possesses in and around the 300 foot wide buffer zone. The Division observes that about 0.5 mile of lake shore is privately owned.</p> <p>Dam & Reservoir Pages 3-182 to 3-186</p> <p>This discussion of dam safety in the DEIS does not address potential environmental consequences on human health and safety. The FEIS needs to address the population that would be at risk in the case of a sudden complete failure of the dam.</p> <p>In paragraph 13 (Page 3-184), the DEIS states that the dam would be designated as a Class B (moderate hazard) one. Since it appears that the reservoir would be the sole water source for a substantial population, the Division of Water would designate the proposed dam as Class C (high hazard). The design criteria listed in paragraph 13 are those for a Class C structure.</p> <p><u>APPENDIX E: FINAL WATER NEEDS ANALYSIS</u> <u>NEEDS QUANTIFICATION & ANALYSIS</u> <u>Population Projections</u> Pages E-24 & E-25</p> <p>It appears that the study has taken Kentucky Population Research (KPR) official projections and increased them to develop moderate and high end figures. Thus it appears that the KPR figures were considered to be low. The Division of Water believes the KPR figures should be considered as moderate.</p> <p>In paragraph 5 (Page E-25), the DEIS states that 85 percent of the Jackson County population would be served by 2000. The Division of Water believes such could happen by 2020 or 2050. Such happening by 2000 is unrealistic.</p> <p>Projected Water Demands Page E-26</p> <p>As noted in the Division of Water comments on 1.2.1.1, the method for calculating demand for the data under this heading is inflated. For the FEIS, the data need to be recalculated by removing the Berea College water treatment plant and the unaccounted water.</p>	<p>4-Y: Comment noted.</p> <p>4-Z: An emphasis on lake-based recreation has been asserted in this sentence. An increase in recreation in and along War Fork, Steer Fork, or Sturgeon Creek would not be considered as new opportunities, just an increase in those that are currently available.</p> <p>4-AA: As discussed in Section 2.4.1, Dam and Reservoir, Proposed Action, of the DEIS, development and certain land uses would be restricted within the 300-foot buffer zone surrounding the lake. Certain recreation facilities, however, may be developed within the buffer zone. If a reservoir is chosen as the action to be taken, and the War Fork and Steer Fork site is the chosen location, the USFS would prepare an EA on the land exchange or SUP necessary for implementation of this alternative. In the land exchange EA, USFS would investigate the alternative of retaining ownership of the land in and surrounding the buffer zone.</p> <p>4-BB: Sections 3.2.11.2.1 through 3.2.11.2.3 of the DEIS discuss the environmental consequences on human health and safety, on a site-specific basis, in the event of a complete dam failure. Please refer to these sections for more information.</p> <p>4-CC: As stated in Sections 3.2.11.2.1 through 3.2.11.2.3 of the DEIS, the dam at the War Fork and Steer Fork site was preliminarily assigned a Class B (Moderate hazard) classification by the contracted engineer, and a dam at either of the Sturgeon Creek sites was assigned a Class C (High hazard) classification. These classifications may change as more specific details for each alternative site are determined. Classifications are largely determined based on downstream damage caused by a catastrophic failure in the dam. Design criteria mentioned in the DEIS are not specifically for Class C structures.</p> <p>4-DD: The KPR low, moderate, and high projections used in the <i>Final Water Needs Analysis</i> of the DEIS are now considered to be obsolete. KPR now publishes only one set of population projections. In view of these updated projections, population and water needs projections for Jackson County have been</p>
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Comments on Jackson County Lake Project Draft EIS

Responses

SERO 000522-38
Page 8

CONCLUSIONS-RECOMMENDATIONS Page E-28

4-GG | In number 5 (Page E-28), the projection of 5,400,000 GPD is exceptionally unrealistic since this amount is not representative of Jackson County water usage in the past.

**APPENDIX G: WATER CONSERVATION
POTENTIAL FOR WATER CONSERVATION
IN JACKSON COUNTY** Pages G-5 & G-6

4-HH | The Division of Water comments on 2.1.4 apply here.

**3 APPENDIX H: JACKSON COUNTY LAKE PROJECT
ALTERNATIVE ANALYSIS**
3.1 Evaluation Criteria
3.1.2 Water Yield Pages H-14 & H-15

4-II | The DEIS in paragraphs 3 and 4 (Page H-15) indicates that the yield analysis was based on a stream gauge site near Kingston in Madison County. The gauge site is about 26 miles from the War Fork dam site. The drainage area at the gauge is about 28.6 square miles (SM²) and the runoff was 18 inches per year (IPY). There is a closer gauge than the Kingston one. This gauge is located at Cressmont in Lee County about 8 miles from the War Fork dam site. The runoff at the Cressmont gauge is 22 IPY. Although the Cressmont drainage (77 SM²) is much higher than the War Fork dam site drainage (10.8 SM²), Cressmont's proximity makes it a legitimate reason for it to be considered.


Timothy Kuryla EIS Coordinator July 27, 2000
Division of Water

recalculated, and are presented in this FEIS in Section 1.2.1, Water Supply.

4-EE: The revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS only calculates water needs in the year 2050. For this calculation, it is assumed that 85 percent of the population will be served by a public water supplier in that year.

4-FF: Berea College's projected water needs were removed from the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.

4-GG: The *Final Water Needs Analysis*, Appendix E of the DEIS, has been revised for this FEIS. Therefore, the projection noted is now considered obsolete. The revised analysis is presented in Section 1.2.1, Water Supply, of this FEIS.

4-HH: Please see response to comment 4-K.

4-II: We appreciate being informed of the gauge in the Cressmont drainage in Lee County. KDOW states that runoff at this gauge is 22 inches per year (IPY), or four IPY (22 percent) greater than the 18 IPY at the Madison County gauge, which was the basis for calculating theoretical reservoir yield in this analysis. If runoff and flows in War Fork are indeed greater than the amount used in the analysis, this would mean that reservoir yield would be greater as well. Therefore, the analysis would have underestimated potential yield and/or the amount of water that could be passed through the proposed dam at this site to maintain in-stream functions and values downstream.



Education, Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL
The State Historic Preservation Office

Paul E. Patton
Governor
Marlene M. Helm
Cabinet Secretary

David L. Morgan
Executive Director and
SHPO

July 24, 2000

Mr. Mark S. Plank
USDA, Rural Utilities Service
Engineering and Environmental Staff
1400 Independence Avenue
Mail Stop 1571
Washington, D.C. 20250

Re: **Draft Environmental Impact Statement**
Jackson County Lake Project

Dear Mr. Plank:

Thank you for the opportunity to review and comment on the draft environmental impact statement for the Jackson County Lake Project. Enclosed is a copy of our review of the draft archaeological report for the proposed project. As you will note, we had several problems with the draft report. To date, a final report has not been submitted to this office for review and approval. We also noted in our letter that once a preferred alternative has been selected, it would have to be thoroughly investigated by a professional archaeologist and all identified cultural resources would have to be evaluated. A report documenting the results of this investigation would have to be reviewed and approved by this office.

5-A

5-B

If you have any questions please feel free to contact David Pollack of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

enclosure

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FAX (502) 564-5820
Printed on recycled paper

5-A: RUS acknowledges that the Kentucky Heritage Council was critical of several aspects of the archaeological survey included as Appendix K in the DEIS. If a reservoir is chosen as the action to be taken, the chosen site would be subjected to additional archaeological investigation and analysis in keeping with those concerns and recommendations.

5-B: In order to achieve compliance with Section 106 of the National Historic Preservation Act, a Memorandum of Agreement (MOA) would be signed with the Kentucky State Historic Preservation Officer (SHPO) concerning a phased identification approach for the reservoir site, should a reservoir be chosen as the action to be taken. The specific water transmission pipeline route would also be examined for its archaeological potential, especially in those segments that diverge from road rights-of-way (ROW).

Comments on Jackson County Lake Project Draft EIS

Responses



Education, Arts and Humanities Cabinet
KENTUCKY HERITAGE COUNCIL
The State Historic Preservation Office

Paul E. Patton
Governor
Marlene M. Helm
Cabinet Secretary

David L. Morgan
Executive Director and
SHPO

February 9, 2000

Mr. Thomas G. Fern
State Director
Rural Development
771 Corporate Drive, Suite 200
Lexington, KY 40503-5477

Re: Draft "An Archaeological Survey of Portions of War Fork/Steer Fork and Sturgeon
Creek in Jackson County, Kentucky" By Andrew P. Bradbury

Dear Mr. Fern:

Thank you for the opportunity to review and comment on the above referenced draft
archaeological survey report. This report provides the results of an opportunistic survey of a sample
of two proposed alternatives for a reservoir to be constructed in Jackson County. As such, the report
does not contain a review of all archaeological resources within each project area. Nor does it
necessarily represent a representative or statistically valid sample of the cultural resources that might
be expected within each project area. Once a preferred alternative has been selected, it would have
to be thoroughly investigated by a professional archaeologist and all identified cultural resources
would have to be evaluated.

5-C

A major problem with the report is that it is not entirely clear how much of each alternative
was surveyed. Nor is the level of survey intensity clearly stated. If the report is to be revised, it should
be clearly noted in the beginning of the report why only sample of each project area was examined.
In addition, the level of effort should be clearly identified and it should be pointed out that several
different survey methods were utilized during the course of this study.

5-D

In the Management Summary it is noted that the study was designed to sample approximately
25 percent of each reservoir. On page 5 it is noted that in the War Fork/Steer Fork project area 57
acres, or a 35 percent sample, was investigated. Later on page 27 it is noted that 41 acres in this
drainage was subjected to an intensive pedestrian survey. Later, but in the same paragraph it is noted
"that several different survey methods were employed during the current survey....These are described
below." These methods consisted of Surface Collection, Shovel Testing, and Bucket Augering. An
intensive pedestrian survey is never defined and it is not until page 87 that the reader is informed that
an intensive pedestrian survey is an entirely different method. This methodology, which is not very
well-described, does not appear to meet the Kentucky Heritage Council's 1991 Specification for
Archaeological Fieldwork. As such, of the 57 acres examined within this drainage only the 16 acres
subjected to shovel testing can be considered acceptable survey coverage and would not have to be
reexamined. With the removal of the 41 acres subjected to an intensive pedestrian survey, only about

5-E

5-F

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5-C: It is incorrect to suggest that the archaeological report presents the
"results of an opportunistic survey." As explained in Chapter 9 of
Appendix K of the DEIS, archaeologists first identified the various
topographic features present in each area. Each topographic zone
was then surveyed to obtain a representative sample to allow for the
determination of the potential effects of the reservoir on historic
properties. To a large extent, the topography of each of the three
project sites investigated in the DEIS dictated the field methods
employed. Data derived from the survey were examined as a means
of determining how representative the survey results were of each
proposed project area.

Page K-95 of the archaeological report, Appendix K of the DEIS,
notes that: "...the current survey was designed only to examine a
portion of each project area. Once a final project location is
selected...the remaining areas will need to be surveyed." RUS
recognizes that survey work to date is preliminary and does not
complete required archaeological field work. If a reservoir is
chosen as the action to be taken, areas that were not yet surveyed
within the reservoir footprint will be surveyed.

5-D: Acreage for each of the areas surveyed is noted in Chapter 2 of
Appendix K of the DEIS. In addition, Table 21 in Chapter 9 of this
appendix lists the total acreage examined by each field method for
each of the reservoir sites surveyed. The amount of acreage
surveyed for each project area is also noted in Chapter 9. The first
paragraph of the Management Summary (p. K-5 of Appendix K of
the DEIS) clearly states that:

"Archaeological investigations...were designed to sample
approximately 25 percent of each of the two proposed reservoir
alternates to: 1) identify historic properties within the portion
surveyed; 2) allow for predictions of relative impacts the
proposed reservoir projects would have on historic properties in
these two areas; and, 3) determine the potential for significant
historic properties to be located in both project areas."

Chapters 4 and 9 of this appendix, as well as Table 21, state that
several different survey methods were used in the archaeological
field work.

Comments on Jackson County Lake Project Draft EIS

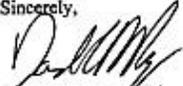
Responses

Page 2.
Mr. Thomas G. Fern
February 9, 2000

5-F 10% of the War Fork/Steer Fork project area has been adequately surveyed for archaeological sites. the situation is not a bad for the Sturgeon Creek project area where 30 acres were subjected to intensive pedestrian survey, resulting in 91 acres, or just 17% of the project area having been adequately surveyed.

5-G Within the areas that were adequately surveyed, during the course of his investigation, the author recorded eight (15Ja473-480) archeological sites. Based on the results of his study the author concluded that archaeological sites 15Ja474-480 are not eligible for listing in the National Register of Historic Places and warrant no further work. He also concluded that archaeological site 15Ja473 is potentially eligible for listing in the National Register of Historic Places and warrants additional work. While we concur with the author's evaluation of archaeological sites 15Ja474-480, at this time we do not concur with his evaluation of archaeological site 15Ja473. In our opinion, archaeological site 15Ja473 is not eligible for listing in the National Register of Historic Places and warrants no additional work.

Once a preferred alternative has been selected we look forward to reviewing and commenting on the report documenting the results of archaeological survey of the entire project area. If you have any questions please feel free to contact David Pollack of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

5-E: The pedestrian survey method is described on Page K-33 of Chapter 4 of Appendix K of the DEIS. Please refer to that page. Pedestrian survey is a method commonly used in areas that either exhibit good surface visibility and/or are located on slopes steeper than 20 percent. The Kentucky SHPO *Specifications for Archaeological Fieldwork* allow for use of this method on sideslopes.

5-F: Shovel-testing on the steep sideslopes and rock bluffs that were surveyed by means of the intensive pedestrian would have been difficult or impossible due to the paucity or complete lack of soil. RUS respectfully disagrees that 41 acres at War Fork and 30 acres at Sturgeon Creek need to be re-surveyed by another method. The Kentucky Heritage Council's Specifications do permit pedestrian surveys in certain situations. Therefore, RUS disagrees with the Council's assertion that only 10 percent of the War Fork and Steer Fork site and 17 percent of the Sturgeon Creek project sites were surveyed adequately. This difference will be worked out in the forthcoming MOA between RUS and the Council.

5-G: While the Council believe that site 15Ja473 at Sturgeon Creek is ineligible for listing in the National Register of Historic Places (NRHP), and warrants no further work, the archaeological consultants who discovered the site note the presence of up to 140 centimeters of fine alluvial sediments in the immediate vicinity that could have the potential to contain intact deposits. In addition, the presence of fire-cracked rock and the potential for intact subplowzone features suggest that, at the very least, test excavations be conducted to determine if such deposits do exist at the site. This issue will be decided in the MOA between RUS and the Council.

Comments on Jackson County Lake Project Draft EIS

Responses

FISH & WILDLIFE COMMISSION
 Mike Boatright, Paducah
 Tom Baker, Bowling Green
 Allen K. Gailor, Louisville
 Charles E. Bale, Hodgenville
 Dr. James B. Rich, Taylor Mill
 Ben Frank Brown, Richmond
 Doug Hensley, Hazard
 Dr. Robert C. Webb, Grayson
 David H. Godby, Somerset



COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF FISH AND WILDLIFE RESOURCES
 C. THOMAS BENNETT, COMMISSIONER

July 24, 2000

Mr. Alex Barber
 Commissioner's Office
 KY Department of Environmental Protection
 14 Reilly Road
 Frankfort, KY 40601

RE: Draft Environmental Impact Statement,
 Proposed Jackson County Lake Project,
 Jackson County, Kentucky - US Dept.
 of Agriculture.

Dear Mr. Barber:

Members of my staff have reviewed the information provided on the above-referenced project. Accordingly, we offer the following comments and recommendations.

6-A | The Kentucky Department of Fish and Wildlife Resources (KDFWR) finds the Draft Environmental Impact Statement (DEIS) to be incomplete and insufficient. While the DEIS does address the impacts to various fish and wildlife resources, it does not completely address all impacts or minimize the potential impacts of the various alternatives.

6-B | A major oversight of the DEIS is the lack of discussion regarding the impact of converting a natural stream into an impoundment. Kentucky has lost hundreds (and probably thousands) of miles of free-flowing streams through channelization, placement into culverts and pipes, filling, and impoundment as a result of developmental activities. The impact has been a significant and permanent loss of fish and wildlife resources and a severe reduction in recreational opportunities. Since natural streams are not being created, any loss must be considered a significant negative impact. The DEIS totally ignores this impact on all alternatives.

6-C | While KDFWR concurs that fish and wildlife habitat will be established by the proposed impoundment, the overall importance of that type of habitat is over-estimated in the document. Impoundments such as the one proposed are common throughout Kentucky and the southeast United States. The development of such habitat has minimal benefit to fish and wildlife resources and related recreational opportunities.

6-D | It is doubtful the project will result in any significant additional recreational opportunities. As stated before, this type of habitat and its recreational opportunities are common in the area. In fact, three major reservoirs, Lake Cumberland, Laurel River Lake and Buckhorn Lake, occur in the region and provide significant resource opportunities. It is very likely that more recreational opportunities will be re-distributed rather than being created.

6-E | KDFWR is also concerned about the impact of the proposed lake on downstream aquatic resources. Even though the document states the discharge from the structure will be mixed water and the 7Q10 flow will be exceeded during low-flow months, there still could be impact to downstream resources. KDFWR recommends that an Instream Flow Study be conducted to target downstream temperature and flow needs for aquatic resources for any alternatives presented.



Arnold L. Mitchell Bldg. #1 Game Farm Road Frankfort, Ky 40601
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6-A: Comment noted. Potential environmental impacts resulting from the project were rated based on the significance criteria presented in Appendix C of the DEIS. Additional analyses involving fish and wildlife resources have been conducted for this FEIS. Other issues will be addressed during future stages of the project, including the engineering design phase, permitting, and approval.

6-B: Converting a natural stream into an impoundment was discussed in Section 3.2.2.2, Environmental Consequences, Surface and Groundwater Resources, of the DEIS, and was rated as a moderately significant impact. This impact was also discussed and rated as moderately significant in Section 3.2.4.2, Environmental Consequences, Biological Resources, of the DEIS, along with long-term effects on downstream aquatic biota and riparian vegetation from changes in water temperature, reduced DO, and reduced water flows. Only the War Fork and Steer Fork project site currently has noteworthy fishing activity (for stocked trout). This fishery would either be replaced or augmented by the lake-based fishery.

6-C: Both the development of lake habitat and subsequent gain in lacustrine fish species were given moderately significant impact ratings in the DEIS, based on the significance criteria listed in Appendix C of the DEIS. Recreational opportunities would be created by the development of a lake, although not to the extent to meet all of the projected recreation needs of Jackson County and the surrounding region.

6-D: As discussed in Section 1.2.2, Recreation Needs, of the DEIS, there is currently a deficiency in camping, hiking, swimming, and picnicking facilities in Jackson County and the region, and increasing needs for these facilities in the future. While a proposed reservoir in Jackson County would not meet all of the projected recreation needs for the region, it would serve to meet a fraction of these needs, and would be used by residents of the County and the region.

6-E: Section 3.2.2, Surface and Groundwater Resources, of the DEIS notes the potential for several downstream hydrological and aquatic effects to occur, and rates such effects as moderately significant.

Comments on Jackson County Lake Project Draft EIS

Responses

Page Two
Mr. Barber
July 24, 2000

6-F

The discussion of wetlands in the DEIS is totally inadequate. The document only notes the presence or absence of wetlands based on National Wetland Inventory (NWI) maps. While the DEIS notes these maps only show an indication as to presence of wetlands, the only commitment is to conduct a more in-depth wetland determination prior to submission of Section 404 permits. Given the data set presented on this evaluation, a comprehensive evaluation of impacts to wetlands can not be made. KDFWR recommends the project sponsor consult with the Natural Resources Conservation Service to determine the presence of hydric soils in the area of the alternatives to establish a better data set for the presence of wetlands.

6-G

Finally, the mitigation proposed for biological resources and unique habitats is composed of conceptual plans and offers no commitments. To fully evaluate any impacts on the environment, it is critical to include mitigation plans. Without such plans, no comprehensive evaluation of impacts can be made. Therefore, for the document to be complete, detailed mitigation plans should be developed and included into the environmental document.

Again, KDFWR finds the DEIS to be incomplete and inadequate to fully evaluate the proposed project's impact on the local fish and wildlife resources.

We appreciate the opportunity to comment. If you or any of your staff should have any questions regarding our comments, please contact Mr. Wayne L. Davis of my staff at 502/564-7109, ext. 365.

Sincerely,

C. Tom Bennett
Commissioner

CTB/WLD/kh

cc: Peter W. Pfeiffer, Director, Division of Fisheries
Edwin F. Crowell, Asst. Director, Division of Fisheries
Douglas E. Stephens, Southeastern Fishery District Biologist
John Dovak, KY Division of Water
Lee A. Barclay, USFWS, Cookeville, TN
Eric Somerville, USEPA, Atlanta, GA
Environmental Section Files

However, until a decision is made regarding the action to be taken, it would be premature to conduct an Instream Flow Study. If the construction of a reservoir is chosen as the action to be taken, such a study may be conducted in conjunction with State and Federal permit applications, or imposed as a condition in State and/or Federal permits and conducted prior to, during, or after completion of the impoundment.

6-F: A full wetlands delineation, based on the 1987 USACE manual, and utilizing the three accepted criteria of wetlands, hydric soils, hydrophytic vegetation, and wetland hydrology, has been conducted for this FEIS, and is included as Appendix U.

6-G: Until a final decision has been made regarding the action to be taken, it would be premature to investigate and commit to site-specific mitigation measures. Should a dam and reservoir alternative be chosen as the action to be taken, mitigation for biological resources and unique habitats would be developed in consultation with State and Federal agencies during the permitting process.

Comments on Jackson County Lake Project Draft EIS

Responses

JAMES E. BICKFORD
SECRETARY



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

June 12, 2000

Division of Waste Management

Comments for Project #SER02000-38

7-A

Jackson County must be implementing their Area Solid Waste Management Plan in compliance with the approved implementation schedule.

7-A: Implementation of Jackson County's Area Solid Waste Management Plan is the responsibility of the Jackson County Fiscal Court. As noted throughout Section 3.2.10, Waste Management, of the DEIS, proper implementation of the plan would be necessary for proper project-related waste management.

Comments on Jackson County Lake Project Draft EIS

Responses

DONALD S. DOTT, JR.
DIRECTOR



PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
KENTUCKY STATE NATURE PRESERVES COMMISSION

801 SCHERKEL LANE
FRANKFORT, KENTUCKY 40601-1403
(502) 573-2886 Voice
(502) 573-2355 Fax

June 21, 2000

Mr. Alex Barber
Department For Environmental Protection
Commissioner's Office
14 Reilly Road
Frankfort KY 40601

Dear Mr. Barber:

We have reviewed project number SERO2000-38, a Draft Environmental Impact Statement (DEIS) for the proposed Jackson County Lake, and would like to submit the following comments. While recognizing a need to provide an adequate source of potable water to the citizens of Jackson County, our agency would prefer that existing sources (other reservoirs or the Kentucky River) of water be used to address the county's needs. As part of the Commission's mission, we support the maintenance of the physical, chemical, and native biological integrity of the Commonwealth's streams, rivers, and wetlands. Stream flow regulation by impoundment or damming has many negative impacts on rivers both above and below dams. Above dams, terrestrial and lotic habitats are lost. Below dams, changes in flow (e.g., magnitude, duration, timing, frequency) and temperature regimes, water clarity, and water chemistry can extend far downstream and modify plant and animal community composition and structure, and ecosystem function. Altered flow regimes and the presence of the reservoir affect sediment transport and water clarity. Dam discharges can scour the riverbed, change channel morphology, and reduce habitat and habitat heterogeneity. Water level fluctuations from the operation of a dam can accelerate channel erosion and cause trees to slump into the river. Release of deep water from reservoirs can reduce daily and seasonal temperature variations.

The biological effects of river regulation begin with the loss of riverine habitat under the reservoir and the virtual elimination of up- and/or downstream movement by aquatic organisms. Reduction in stream flow variation alters the river's connection to the floodplain, which can reduce floodplain productivity and redirect succession. Benthic invertebrate communities can experience reduced species richness, but increased abundance, resulting from physical and chemical alterations, and from habitat loss. Stream organisms are highly adapted to periodic variation in stream flow and temperature. Disruption of these variations can affect community



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8-A: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

8-B: The negative impacts on rivers both above and below dams due to stream flow regulation by impoundment are discussed in Sections 3.2.2, Surface and Groundwater Resources/Quantity and Quality, 3.2.4, Biological Resources, of the DEIS.

8-A

8-B

Comments on Jackson County Lake Project Draft EIS

Responses

Mr. Alex Barber
Page 2
June 21, 2000

composition, reproductive success, and development. In summary, river regulation disrupts dynamic physical, chemical, and biological conditions that connect headwaters to stream mouth and influence or determine biological community composition, structure, and function.

8-C

In the event that construction of a dam and reservoir are selected, we believe that conservation of native aquatic biodiversity and integrity and protection of natural ecosystem functions in War Fork and Steer Creek (WS) should be primary objectives of the mitigation plan. To sustain aquatic biodiversity and integrity, the full or nearly full range of natural variation in a stream's hydrologic regime must be maintained. The Nature Conservancy (TNC) has taken a lead position in developing streamflow-based river ecosystem management goals. They have devised a method called the "Range of Variability Approach" to develop annual river management goals based on characterization of ecologically important flow regimens (Richter et al. 1997. *Freshwater Biology* 37:231-249; see enclosed). We request that the applicant develop and implement such river management goals, by contracting with TNC if necessary, as part of their mitigation plan. Implementation of this approach requires long-term (>20 years) daily streamflow records to define natural or less altered ranges of variability in stream hydrological regimes. Long-term information about the water chemistry and temperature of WS also is required so water released from the dam can approximate natural stream conditions. A multi-level water intake structure should be incorporated in the dam design to allow mixing of water from different depths of the reservoir so hydrological, chemistry, and temperature objectives can be met.

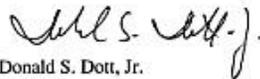
8-D

8-E

8-F

Finally, we do not believe the DEIS adequately delineates the number and extent of wetlands within the project area. We believe that additional work is required to identify potential wetland losses so development of a comprehensive mitigation plan can be incorporated into the Final Environmental Impact Statement.

Sincerely,



Donald S. Dott, Jr.
Director

DSD/ELL

Enclosure

cc: U.S. Fish and Wildlife Service, Cookeville, TN
Ky. Division of Water, Frankfort, KY
Ky. Department of Fish and Wildlife Resources, Environmental Section, Frankfort, KY

8-C: Comment noted. Until a final decision has been made regarding the action to be taken, it is premature to investigate and commit to site-specific mitigation measures. Should a dam and reservoir be chosen as the action to be taken, mitigation for biological resources and ecosystem functions would be developed in consultation with State and Federal agencies during the permitting process.

8-D: Comment noted. Until a final decision has been made regarding the action to be taken, it is premature to investigate and commit to site-specific mitigation measures. If a dam and reservoir alternative is chosen as the action to be taken, such measures as those listed in the comment may be conducted in conjunction with State and Federal permit applications, or may be imposed as a condition in State and/or Federal permits and conducted prior to, during, or after completion of the reservoir.

8-E: It would be premature, at this time, to present a plan for the proposed multi-level water intake. Such a plan would only be developed if a reservoir is chosen as the action to be taken, and the engineering design phase for the proposed dam and associated structures is undertaken. However, it should be noted that the project proponents, as well as RUS, have firmly asserted a commitment to the use of a multi-level water intake.

8-F: A full wetlands delineation, based on the 1987 USACE manual, has been completed and is included as Appendix U of this FEIS. Until a final decision is made regarding the action to be taken, development of a comprehensive mitigation plan for wetlands would be premature. Should a dam and reservoir be chosen as the action to be taken, a mitigation plan would be developed during the upcoming stages of project design, permitting, and approval.

Comments on Jackson County Lake Project Draft EIS

Responses

Kentucky Resources Council, Inc.

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(502) 875-2645 fax
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July 10, 2000

Mark Plank, USDA
Rural Utilities Service
Engineering & Environmental Staff
1400 Independence Avenue
Mail Stop 1571,
Washington D.C. 20250

by email mplank@rus.usda.gov
by fax (202) 720-0820

Re: Draft Environmental Impact Statement
Application for Financial Assistance
Jackson County Water Association

Dear Mr. Plank:

The Kentucky Resources Council, Inc., (Council), a non-profit environmental advocacy organization whose membership shares a commitment to prudent use and conservation of the natural resources of the Commonwealth, submits these comments in response to the public comment period on the draft Environmental Impact Statement (dEIS) for the "Jackson County Lake Project." The Council previously commented concerning the appropriate scope of the dEIS, and submits these comments regarding the draft Environmental Impact Statement prepared by USDA RUS, with the cooperation of the United States Forest Service, in connection with the application of the Jackson County Water Association for financial assistance to construct a dam to create a reservoir in Jackson County, Kentucky.¹

9-A

For the reasons outlined below, the Council believes that the dEIS falls short of the level of analysis and objective assessment of the project need, available alternatives, and environmental effects necessary to satisfy the requirements of the National Environmental Policy Act.

9-B

¹ Despite commenters' request to be placed on the mailing list for all future actions related to the preparation of this EIS, and after submitting comments on the scoping, no notice of the availability of the dEIS was mailed, and the Council became aware of the comment period only through indirect means.

9-A: Comment noted.

9-B: The commenter's name and address appeared on the mailing list for the DEIS and a copy of the DEIS was sent to that address.

Comments on Jackson County Lake Project Draft EIS

Responses

When the Council commented on the scoping for this environmental impact statement, we cautioned that the EIS (and subsequent applications under the Clean Water Act for a Section 404 permit) must include a thorough and clear-headed assessment of the project purpose and need, and justification for expenditures of public money on such a project.

The Council historically has maintained an extremely skeptical posture with respect to water resources projects. The development of any water resources project is not a matter to be lightly undertaken. The alteration of the natural environment is seldom, if ever, without consequence (both short-term and immediately ascertainable, and other more subtle ecological consequences), and the expenditure of public monies and appropriation of public waters carries with it an obligation of responsible stewardship.

Further, in utilizing federal "empowerment zone" monies to support a water resources project, there is an added obligation imposed under federal law to act in a fiscally prudent and environmentally responsible manner in expending those monies. The "lake of dreams"² approach to water resources projects that characterized many of the 1960's and 70's water resources projects cannot be tolerated in this day and age. In order to properly determine whether a project is "feasible" and the "least-cost alternative" in social/ecologic-economic terms, a number of questions must be analyzed.

For these reasons, the Council urged that the proposed project be scrutinized carefully to assure (1) that the project addresses a real and legitimate "need," and that the project is sized according to that need; (2) that the project has a broad base of support among those most directly affected by the proposal, including those whose lands might be directly taken, or those whose lands might be burdened by the project (including landowners within the watershed whose activities might be curtailed, as well as those living below the impoundment who might be placed at greater risk of loss of life or limb, or whose utilization or enjoyment of the water resources might be affected by changes in hydrologic response, flow, aquatic life, and other aspects of the river and watershed); and (3) that the proposal is the "least-cost" alternative in ecological and social terms, with all alternatives fully and fairly explored.

The Water "Need" For The Proposed Project Suffers From Inflated Estimates

As earlier stated, the first inquiry is whether the project addresses a real and legitimate "need" and whether the project is sized according to that need. No one would dispute that access to a safe and dependable water supply is a legitimate goal. There are, however, a number of questions under this heading that must be answered; each which may suggest different solutions:

² "If you dam it, they will come."

- 9-C: All of these issues are discussed in Section 1.2.1, Water Supply, of this FEIS. Please refer to this section, and references to the DEIS, for information on these topics.
- 9-D: A water conservation factor of 10 percent was calculated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Please refer to this Section.

Comments on Jackson County Lake Project Draft EIS		Responses
9-C	<p>* What is the anticipated need, over what time frame, what is the nature of the demand (domestic, industrial, commercial), where is the growth that is inducing the demand, how are the delivery systems configured and what is the anticipated further development of water delivery systems?</p>	<p>9-E: Section 2.0, Alternatives Including the Proposed Action, of the DEIS examines available or developable water supply sources in Jackson County, including groundwater resources and the expansion of existing water resources. Please refer this section for further information on these alternatives. Management of multiple, smaller lakes for water quality would prove to be more difficult and costly than management of a single reservoir. Administration of water from multiple lakes would still require adequate treatment, and would probably need to be transported to the JCWA Treatment Plant. A larger number of smaller lakes would not necessarily be more compatible with the environment than a single, larger reservoir. The edge effects of multiple lakes would fragment more natural habitat, which is not a desirable outcome ecologically. In addition, financial costs of a larger number of reservoirs would be much higher, given permitting issues, site acquisition and preparation, and maintenance.</p>
9-D	<p>* To what extent, if at all, can the supply be augmented or demand moderated by improving the delivery system to reduce transmission losses; through conservation measures; and what effect does this have on the demand projections?</p>	
9-E	<p>* What supply sources are available or can be developed to meet the projected need. Are there other existing sources of supply that can be expanded to meet the demand through system consolidation, groundwater resource development, multiple small single-use reservoirs, or one larger reservoir.</p> <p>The answer to each of these questions, fully and fairly addressed, begins to define the water supply demand and to provide a basis for definition of, evaluation of, and selection among, reasonable alternatives.</p> <p>The dEIS raises a number of questions concerning the assumptions on which the project "need" is based. The Council is concerned with these particular areas:</p>	
9-F	<p>1. The proposed population changes should rest on actual historic changes and trends and adopt moderate, rather than high, values for projected changes in future population.</p>	<p>9-F: Population projections were revised for Jackson County in this FEIS. The new projections consider recent trends in growth. Refer to Section 1.2.1.2.2, Population Projections, of this FEIS.</p>
9-G	<p>2. It is inappropriate to utilize potential demand from Berea College or the Madison County residents, to bolster the "need" for a Jackson County reservoir. If the project purpose is to serve multi-county areas, then the range of alternatives needed to support that assessment would include areas far beyond Jackson County. Absent a firm contractual commitment from other communities to purchase X acre-feet of storage, the projected need cannot include those communities. Since the author recognizes that the interest if Berea is a "maybe," it is inappropriate to inflate the Jackson County water "need" by almost 18 percent by counting those served by Berea College's water utility.</p>	<p>9-G: Berea College's projected water needs were removed from the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.</p>
9-H	<p>3. Additionally, in determining the proper sizing of this project, it is not appropriate to include Rockcastle County, Clay County and Owsley County into the equation <u>unless</u> the geographic scoping is broadened significantly to identify the alternatives available to best serve the needs of the three counties; and unless there is a firm contractual commitment to purchase water from the Jackson County Water District and this proposed lake and unless the full range of alternatives available to those communities in terms of alternative water supply sources, is assessed. The damming of a free-flowing stream of the quality proposed here is not undertaken lightly, and if the project justification is</p>	<p>9-H: The revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS discusses projected water needs of Jackson County only and regional needs separately. Alternatives have been reassessed in terms of these revised needs and as to whether they meet only Jackson County's needs or those of Jackson County and the region. Please refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS.</p> <p>9-I: The regional aspects of the Jackson County Lake Project proposal were included in the Notice of Intent (NOI) and clearly stated in the DEIS. Language regarding the regional perspective was clearly stated in the summary of the NOI: "The primary scope of the EIS is to evaluate the environmental impacts of and alternatives to the Jackson County Water Association's applications for financial assistance to provide water supply for the residents of Jackson and</p>

Comments on Jackson County Lake Project Draft EIS

Responses

	<p>being expanded to bolster demand numbers, the range of alternatives to meet those needs in their own counties must also be broadened to assure that all reasonable alternatives (including a smaller impoundment meeting only Jackson County's needs) are assessed.</p> <p>It appears that the proposal is to greatly expand the amount of water sold by Jackson County to other communities, rather than solely to develop a water resources project meeting the needs of Jackson County, as was initially proposed. If the proposal is to create a regional reservoir, as appears the case since the combined demand being projected from Clay, Madison, Owsley and Rockcastle counties accounts has been used to inflate the demand by sixty percent over the "Jackson County need," the project must be rescoped, since the "alternatives" have been limited to Jackson County, yet the size of the projected reservoir is intended to serve a much wider area and thus, the most efficient and least environmentally-damaging alternatives have not been assessed (including more, smaller reservoirs; pumped storage; etc.) The proposed project was represented as a Jackson County project to meet its water needs, with recreation as an ancillary purpose. The use of these other counties "needs" to inflate the demand is inappropriate unless the project is rescoped as a regional project and the full range of regional alternatives explored.</p> <p>4. The projected water demand includes a 15% multiple for unaccounted for water. It is unclear whether the values being used from the Public Service Commission already factored in "unaccounted for water," so that the addition of the multiplier may have the effect of double-counting water loss.</p> <p>5. The choice of industrial values in projecting demand also utilized values that are among the highest in the state for growth. The use of numbers from Louisville and Jefferson County is not reasonable, since there is no comparison between the two counties in terms of access to interstates, rail, airport, river access and a major population base. Also missing is any discussion of moderating industrial demand by attracting industries requiring less water use, and by water reuse among industrial sites.</p> <p>6. The use of an average residential per capita water use of 67 gal/day/person, which is based on statewide data, is inappropriate since the local data from Jackson and surrounding counties indicates that average water use is nearer 52 gal/day/person.</p> <p>7. The combination of inflated demand and failure to fully assess measures to moderate demand results in a higher projected need than is necessarily the case. Water conservation can reduce water use by 10-30%, with an average of 20%. By implementing water conservation measures, the amount of demand and necessary yield for any water source (and consequently the environmental impact of such a source) can be diminished by another 20%.</p>	<p>surrounding counties" (62 FR 41336, August 1, 1997). A regional alternative, Sturgeon Creek, 8.5 mgd, was evaluated in the DEIS. Therefore, the commenter's request for a re-scoping is viewed by RUS to be unnecessary, as it was clearly stated as one of the primary purposes of the proposal.</p> <p>9-J: Figures for water consumption from the Kentucky PSC are based on customer billing data and do not include line losses (Lee, 2000). Appendix B, Water Rate Calculations, of Appendix E, <i>Final Water Needs Analysis</i>, of the EIS provides computations of per capita use rates for Jackson County and for the Kentucky PSC. As shown by these tables, residential per capita water use rates do not include line losses or unaccounted for water.</p> <p>9-K: The revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS does not include the low, medium, and high growth scenarios used in the <i>Final Water Needs Analysis</i> of the DEIS. Instead, only the most probable water needs scenario, which includes a most probable industrial water use rate, was calculated. Please refer to Section 1.2.1 for more information. The role of the EZ is to attract industries that are suitable to the economic and infrastructure conditions of Jackson County. Industries requiring high water consumption have numerous alternatives within Kentucky (e.g., along the Ohio River) in which they could locate. Such industries would likely explore development options in these locations before considering Jackson County.</p> <p>9-L: Please refer to Section 1.2.1.2.1, Projected Water Consumption Rates, of this FEIS for an explanation of the use of 67 gpd as the residential per capita use rate.</p> <p>9-M: A water conservation factor of 10 percent, which was determined to be reasonable for Jackson County, was calculated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Please refer to this section.</p> <p>9-N: Most distribution lines are placed in existing road ROW and are temporary construction projects. Impacts of such projects would</p>
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Comments on Jackson County Lake Project Draft EIS

Responses

After calculating the actual Jackson County demand, removing Clay, Rockcastle, Owsley and Madison Counties (Berea), adjusting for actual water demand based on local water use rather than statewide averages, and reasonable demand projections, and adding water conservation, the demand is substantially lower than projected.

8. The scoping for this project focused on the development of a water reservoir in the Laurel Fork Watershed and the upgrading of the existing water treatment plant and for construction of a pipeline to transport the raw water for treatment and distribution.

9-N

The environmental consequences of these line extensions and the impacts associated both with the extension of water service, and the impact of the water extension on wastewater management, has not been thoroughly assessed. The existing wastewater treatment infrastructure, and the effect of provision of public water supplies to areas without proper wastewater treatment, must be assessed in public health and ecological terms.

In sum, the water demand is, in numerous areas, the product of inflated values which substantially overstate the project need. This inflation of need infects the analysis of alternatives, since smaller impoundments or excavated reservoirs, including those utilizing seasonal pumped storage, might be capable of meeting a more moderate and reasonable demand value.

The Recreational "Need" Cannot be Used To Bolster The Project "Demand"

It is no secret that among the supporters of this project are those who believe strongly that a "lake and a lodge" are the economic development ticket for Jackson County. The project is proposed to have a 300' foot horizontal buffer for protection of the lake, but it is also proposed that the project would include a boat ramp, boat dock, public beach, hiking trails, picnic area and a primitive campground.

Unstated but also likely in a community with no zoning or planning, is private development that could occur if the surrounding lands are privatized, development that would rely on on-site septic systems in the absence of a publicly-owned sewer system.

9-O

The project assumes that flatwater recreation is the preferred form of water-related recreation, and proposes that this lake would be used for boating and swimming. The proposal to use the impoundment for multiple purposes creates a potential conflict between the interests of maintaining water quality, and allowing recreational uses which may degrade that quality. Recreational uses are not necessarily compatible with the projected purpose of water supply, since boating introduces raw sewage, garbage, petroleum compounds and other contaminants into a raw water supply, and the combination of swimming and sanitary

be similar to those presented in the DEIS for the raw water transmission main leading from the proposed reservoir to the JCWA Treatment Plant, and are not likely to be significant. Economic/business conditions in Jackson County are not likely to attract water-intensive industries. Therefore, impacts on wastewater treatment and infrastructure would be minimal. Incremental addition of housing units is not likely to be a significant factor. Most homes will utilize on-site water disposal systems and will be on scattered lots, minimizing the potential for significant water quality issues.

9-O: Section 3.2.2, Surface and Groundwater Resources, of the DEIS discusses the combined use of a reservoir for drinking water and recreational purposes. Generally, water treatment plants are able to handle these combined uses using typical, or in some cases, altered, treatment technologies. In addition, use of a multi-level water intake structure may help to avoid uptake of accidental fuel or oil spills. Please refer to Section 3.2.2 of the DEIS for further information. It may even be arguable that allowing primary contact recreation in a drinking water reservoir would lead to higher water quality arriving at the treatment plant because greater care would be taken to protect the water quality to which recreationalists would be exposed (Lange, 2000b).

9-P: Reservoir drawdown may curtail recreational use of the reservoir during certain times of the year. Reservoir drawdown would be highest during low-flow periods, from late summer to early fall.

9-Q: As stated in Section 2.0, Alternatives Including the Proposed Action, of the DEIS, alternatives considered in detail should meet the projected desire for additional recreational opportunities, but not meeting this desire would not eliminate an alternative from further consideration. As stated in the response to comment 9-O above, Section 3.2.2, Surface and Groundwater Resources, of the DEIS discusses the combined use of a reservoir for drinking water and recreational purposes. Please refer to Section 3.2.2 of the DEIS for further information.

9-R: The commenter is correct that meeting the recreational needs for picnicking, hiking, and camping is not dependent on the creation of

Comments on Jackson County Lake Project Draft EIS

Responses

<p>9-P</p>	<p>wastewater discharges from boating introduce pathogens. Also, reservoir drawdown is not necessarily consistent with recreational use. Protection of the source of water supply should (and often does) entail a curtailment of the development of the resource for recreational purposes (including limits on swimming, boating, land development around the lake, etc.) In fact, Kentucky State regulations advise that water supply reservoirs should not allow swimming, water skiing and other contact sports and large motor-operated craft (401 KAR 8:020). Because of the potential conflict between recreational use and water supply, any recreational "value" of the project, and any projected need for water-based recreation, should be discounted in determining the real project need.</p>	<p>a reservoir. However, as mentioned in Section 2.0 of the DEIS, not meeting the desire to have increased recreational opportunities would not exclude an alternative from further consideration. Therefore, recreation does not serve as a causal agent for elimination of alternatives in the EIS.</p>
<p>9-Q</p>	<p>The recreational aspects of the project "need" should be discounted also because, based on the Recreational Needs Analysis (Appendix F), it is only picnicking, hiking, camping, and swimming will experience shortfalls above current facilities by the year 2020. None of these activities is necessarily related to or dependent on creation of a reservoir, since each can be met in ways other than lake-based recreation.</p>	<p>9-S: RUS cannot dictate the development of watershed planning or land management for water quality protection of the reservoir. Section 3.2.8, Land Use, of the DEIS discusses the current land uses and activities surrounding the proposed reservoir sites, and also discusses potential impacts of these land uses on the reservoir. Most of the land surrounding the preferred War Fork and Steer Fork site (3.5 mgd) is public land managed by the USFS. USFS management of these lands would severely restrict residential development in the immediate vicinity of the reservoir. If a land exchange with the USFS is conducted, as part of the associated EA, USFS may investigate the option of retaining ownership of the buffer zone around the lake, and acquiring ownership of privately-owned land within the buffer zone.</p>
<p>9-R</p>	<p>Approximately one-quarter of Jackson County is comprised of the Daniel Boone National Forest. The Forest, and much of the landscape of this county lends itself to hiking trails, picnic facilities, and campgrounds that offer scenic views of the area's natural topography, without the need for a reservoir.</p>	<p>9-T: Pumped storage alternatives were reevaluated in this FEIS. Please refer to Section 2.0, Alternatives Including the Proposed Action, and Section 3.0, Environmental Analysis, of this FEIS for more information.</p>
<p>9-S</p>	<p>Additionally, unless the watershed draining into the proposed lake is fully protected against development of any kind, the impact of land uses and activities in the watershed above and upstream of the lake on the water quality of the lake must be evaluated. Contributions of pollutants and contaminants into the lake, including such sources as development (sediment, pesticides); silviculture (sedimentation, chemicals) and agriculture (sedimentation, pesticides, fertilizers, animal wastes), and possible controls to mitigate such impacts, must be assessed, including acquisition of water quality easements within the remaining watershed land, and compensation of landowners for loss of utilization of those watershed land. The effects on the water quality in a lake of cryptosporidia, giardia, and coliform bacteria contributions from agriculture and residential occupancy must be assessed, to the extent any such uses are possible.</p>	<p>9-U: Obtaining water from Wood Creek Lake Water District has been added as a reasonable alternative in this FEIS. The distance of Berea College from the JCWA Treatment Plant would make this alternative too costly to be considered a reasonable alternative.</p>
<p></p>	<p><u>Inadequacy of the Consideration of Alternatives</u></p> <p>The Council is concerned that the full range of alternatives has not been properly assessed, in no small part because the demand values utilized for determining suitability of alternatives are inflated.</p>	<p>9-V: Certain combinations of alternatives are considered in this FEIS. Water conservation has been incorporated into the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS. Due to the highly speculative nature of groundwater supplies in Jackson County (refer to Section 2.1.1, Groundwater Development, of the DEIS), a combination of groundwater and conservation would not be expected to meet even the revised projected water demands. This FEIS also examines the option of</p>
<p>9-T</p>	<p>The range of alternatives to be fully assessed, which to date have not been adequately explored, include the use of other hollows located off-stream into which pumped storage could occur during high-flow periods; purchasing raw or</p>	<p></p>

Comments on Jackson County Lake Project Draft EIS

Responses

<p>9-U</p> <p>9-V</p> <p>9-W</p> <p>9-X</p> <p>9-Y</p> <p>9-Z</p>	<p>finished water from Berea College and/or Woods Creek Lake Water District, and jointly investing in creation of additional storage capacity at Woods Creek Lake.</p> <p>The four non-reservoir alternatives addressed in the dEIS (groundwater, expansion of two existing Jackson County reservoirs, water supply from surrounding counties, and water conservation) were each eliminated from further review because, "[e]ach of these alternatives was investigated and found incapable of fully meeting the primary purpose and need of water supply and the secondary purpose and need of supplying lake-oriented outdoor recreation."</p> <p>The dEIS fails, however, to consider whether any combination of these four alternatives would be capable of meeting the demand. Because of the inadequacy of this evaluation, and the inflated demand values, the dEIS should reassess these issues, and republish a dEIS for review with a more fully developed alternatives analysis and more reasonable demand projections.</p> <p>Finally, with respect to the preferred alternative, the proposed impoundment structure will lie approximately one-half mile upstream of a segment that the U.S. Forest Service (USFS) has recommended to the Department of Interior/National Park Service be included in the National Wild and Scenic River system as a Scenic River. The proposed impoundment and operation of the water control structure will adversely affect this downstream reach by altering the significantly reducing downstream flow under drought conditions, and thereby influencing the existing aquatic ecology and faunal composition of this river. Yet the adverse effects are not fully explored, and the losses that will occur despite the maintenance of a low-flow as the sustained minimum flow, are not described fully. Finally, the dEIS fails to account for any mitigation of the significant adverse impacts to the streams directly affected by construction of the impoundment and the inundation of an unspecified length of War Fork and Steer Fork.</p> <p>In conclusion, the Council questions the validity of the demand assumptions underlying the proposed project and the summary manner in which non-reservoir alternatives were dismissed without considering a combination of non-reservoir measures among the alternatives. The Council believes that the dEIS must be withdrawn, for the reasons stated above, and republished with more realistic assumptions and demand projections and more thorough alternatives analysis.</p> <p>Cordially,</p> <p>Tom FitzGerald Director</p>	<p>including McKee's two reservoirs among Jackson County's water supply facilities.</p> <p>9-W: Water needs projections were revised and are presented in this FEIS in Section 1.2.1, Water Supply. RUS has determined that the information provided in this FEIS, while extensive on some issues, does not warrant republication of the DEIS.</p> <p>9-X: During low flow periods, the outflow from the dam must equal the inflow into the reservoir. Please refer to Section 3.2.2.2, Environmental Consequences, of this FEIS for more information on this requirement. Potential impacts downstream of the War Fork and Steer Fork, 3.5 mgd project site are described in Section 3.2.2.2.1, War Fork and Steer Fork, of the DEIS. The status of the Wild and Scenic Study River segment of War Fork should not be affected by an upstream dam and reservoir because the USFS has proposed a "Scenic" classification for this segment. The Scenic value of the segment would be unaffected by regulated flows. Refer to Sections 3.2.2.1.1 and 3.2.2.2.1, War Fork and Steer Fork, of the DEIS for more information on this segment.</p> <p>9-Y: Mitigation measures are included in the DEIS for each resource area, where appropriate. Further mitigation would be developed and committed to once a final decision regarding the proposed action has been made, and a project location has been determined. Mitigation would also be developed in consultation with State and Federal agencies during the permitting process.</p> <p>9-Z: Comment noted. Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.</p>
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Comments on Jackson County Lake Project Draft EIS

Responses

July 10, 2000

Mark S. Plank
 USDA, Rural Utilities Service
 Engineering and Environmental Staff
 Mail Stop 157 1
 Washington, D.C. 20250

Dear Mr. Plank,

I am writing to comment on the Draft Environmental Impact Statement on the Proposed Jackson County Lake.

10-A | Water Needs Analysis: I find that the water needs analysis for Jackson County to be overstated. While it may be prudent to error on the safe side when estimating future water needs, the kind of overestimation in this report will waste public money and cause unnecessary environmental degradation by building unneeded infrastructure. Specifically, may I direct your attention to Appendix E: Final Water Needs Analysis.

10-B | Table 1 shows an annual growth rate of 6.8% in residential water customers from 1990 to 1998. Over this period, the population of Jackson County has been relatively stable. This growth rate in water customers is the result of existing residents hooking up to the community water supplies. With the current residential attachment rate of 70% (from the report), and an eventual attachment rate of 85% (from the report), this growth rate can only sustain itself for three more years. Even assuming an impossible 100% attachment rate, this growth rate could only last for 5.25 years. The presentation of this data in the report, without critical analysis, implies an exaggerated growth rate in the water supply needs that cannot be sustained, even under worst case population growth scenarios.

10-C | The residential water needs were calculated by multiplying exaggerated per capita usage rates by inflated population estimates. The historical per capita water usage in Jackson County is 54 gallons per day. In the entire region, the per capita usage varies from 30 to 61 (Table 3). The calculations use 67 gpd, a 24 percent inflation of the historical average and higher than any surrounding community. The population estimates used start with data from the Kentucky Data Center. Instead of using this nominal data as the moderate population growth, which it is intended to be, it is used as the low growth scenario. The moderate growth scenario then doubles the low growth rate, without justification. The high growth scenario triples the low growth rate, using the relatively flat lands of Pulaski County as a model for growth of this hilly county. This is not particularly applicable. An annual growth rate prediction of 1.3% in light of a population that has been unchanged for 70 years, seems more like wishful thinking than reality.

10-D |

10-A: Comment noted.

10-B: Population projections indicate that Jackson County has a growing population. As the population of Jackson County continues to grow, these new residents will need to be hooked up to the community water supplies. Therefore, although the current annual attachment rate to the community's water supplies may not be sustained, the rate will still be somewhat proportional to the population growth rate of the County. It was inferred that the commenter thought attachment rates were used as exponential population projections for the water needs analysis. This is not correct. Attachment rates served to show the percent of the total projected population of Jackson County accounted for in the water needs analysis.

10-C: Please refer to Section 1.2.1.2.1, Projected Water Consumption Rates, of this FEIS for an explanation of the use of 67 gpd as the residential per capita use rate.

10-D: The KPR low, moderate, and high projections used in the DEIS are now considered to be obsolete. KPR now publishes only one set of population projections. In view of these updated projections, population projections for Jackson County have been recalculated, and are presented in this FEIS in Section 1.2.1.2.2, Population Projections.

10-E: The revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS does not include the low, medium, and high growth scenarios used in the DEIS. Instead, only the most probable water needs scenario was calculated. Please refer to Section 1.2.1 for more information.

10-F: Regional water needs have been recalculated to be 42 percent of the revised projected water needs of Jackson County, due to the elimination of Berea College's water needs.

10-G: Refer to the response to comment 12-E. In the revised water needs analysis, presented in Section 1.2.1, Water Supply, of this FEIS, only the most probable water needs scenario, which

Comments on Jackson County Lake Project Draft EIS

Responses

10-E	<p>The net result of all this inflation is that the high growth scenario predicts a water demand that is 1.24 multiplied 2.6, or 3.22, times what the nominal numbers would predict. Using the Kentucky State Data Center population estimates and the historical water use rates and applying a generous safety factor of two would yield a number only 62% of that which the report uses as worst case.</p>	<p>included a most probable industrial use rate, was calculated. Please refer to Section 1.2.1 for more information.</p>
10-F	<p>The inflation does not stop there. To make matters worse, the regional water needs were calculated using the same exaggerated growth above current usage, compounding the overstatement of the water needs.</p>	<p>10-H: Comment noted. The revised water needs analysis was developed in coordination with the Kentucky Rural Water Association, the Kentucky PSC, and the Engineering and Environmental Staff of the RUS.</p>
10-G	<p>The industrial water use rates are also overstated. With 76.4 acres currently developed and using 98 gallons per acre per day, it is unlikely the average will jump to 1000 gallons per acre per day used in the high growth scenario.</p> <p>When the bottom line is reached, the water requirement for the year 2050 ends up at 4.2 times the year 2000 requirement. This does not pass the reasonable test for a county that has had no population growth in the last 70 years. Even an aggressive EZ program would be hard pressed to quadruple the water needs.</p>	<p>10-I: The <i>Final Recreation Needs Analysis for the Proposed Jackson County Lake Project</i>, Appendix F of the DEIS, used the most current and accurate recreational data obtainable to calculate recreational needs within Jackson County and the surrounding region. A need for additional swimming, camping, hiking, and picnicking facilities was found. Although a reservoir is not necessary to supply these facilities, recreation is not the primary purpose for the proposed project, and cannot be used to eliminate alternatives from further consideration. Although the proposed reservoir at the War Fork and Steer Fork site may flood potential hiking territory, it would not flood a significant portion of such territory.</p>
10-H	<p>We recommend that independent organizations like the Kentucky Water Resources Research Institute in connection with the Kentucky State Data Center be engaged to check the analysis of the water needs estimates. There is a lot of public money at stake, and it wouldn't hurt to make sure the targets are honed as best they can be.</p>	
10-I	<p>Recreation Needs: Appendix F. The final recreational needs analysis is next to worthless. There is no relevant data to support any conclusions except people want places to hike, picnic, camp and swim. No real need is demonstrated and a lake is not necessary to provide any of these. In fact the lakes would flood potential hiking territory.</p>	<p>10-J: The recreational needs analysis (Appendix F of the DEIS) used a 75-mile radius around Jackson County, which included facilities within the County, to represent a recreation supply study area. Costs for construction of the recreational facilities are included in the new cost estimates prepared for each of the dam and reservoir sites, and are presented in this FEIS in Section 2.4.1.1, Site Preparation. Line item cost estimates are included in this FEIS as Appendix Q.</p>
10-J	<p>There are already two campgrounds in Jackson County. The report does not address whether there is a need for a third in Jackson County. It also does not consider that any picnicking, camping, or swimming areas on the War Fork Impoundment would need to be constructed on National Forest Service Land by the USFS. I guess the report assumes that the funds to do this would magically appear in the USFS meager recreation budget. The report does not address road access to the War Fork Impoundment, which currently does not exist, and without which the recreational opportunities would be minimal. Again the magical appearance of money to build access roads is assumed and the environmental impact of these roads is not addressed.</p>	
10-K		
10-L	<p>There are a lot of assumptions implicit in the conclusion that recreational opportunities would be supplied by a lake, especially the War Fork alternative.</p>	<p>10-K: As stated in Section 2.4.1.2, Site Preparation, of the DEIS, a new access road would be constructed for access to the site both during construction and over the lifetime of the dam and reservoir. Construction costs for this access road are part of the project costs provided in Section 2.4.1.1, Site Description, of this FEIS. Road access to the War Fork and Steer Fork site and associated recreational facilities is discussed in Section 3.2.9, Transportation, of the DEIS, and potential roadways to be used for recreation access are provided in Table 3.2.9-6 of the DEIS.</p>
10-M	<p>Environmental Impact: The DEIS ignores the environmental impact of placing a dam a short distance above a Wild and Scenic River Study area. The changes in water temperature, seasonal stream flow variances, sediment and abrupt change in aquatic habitat would have serious impacts on the native flora and fauna that the study area would potentially protect.</p>	

Comments on Jackson County Lake Project Draft EIS

Responses

<p>10-N</p>	<p>Funding: None of the funding listed in the DEIS is from Jackson County. We understand that Jackson County does not have the financial resources required to solve its water supply deficit. It is not unreasonable, however, to ask the water users to bear some small fraction of the capital costs. If 10 % of the costs were funded by a bond issue paid by the current users, another million or so dollars would be available for the project with minimal impact on water rates.</p>	<p>10-L: Should a reservoir be constructed in Jackson County, it would provide additional recreational opportunities for the County and the region.</p>
<p>10-O</p>	<p>Alternatives to a Lake: This is where the DEIS is most seriously at fault. The analysis of pumping raw water from Wood Creek Reservoir was thrown out because it was too expensive. No cost break-outs are given to support this claim (an omission which should be corrected). Assuming the numbers are correct however, the report lists \$12.5 million in potentially available funds, enough to pay the capital costs of a raw water pipeline to Wood Creek Reservoir (\$12.3 million). Therefore, we are left to wonder why it was thrown out.</p>	<p>10-M: The segment of War Fork downstream of Turkey Foot Campground to the confluence with Station Camp Creek has been proposed for classification as “Scenic” by the USFS. The basis for this classification is discussed in Section 3.2.2.1.1, War Fork and Steer Fork, of the DEIS. The scenic value of this segment would likely be unaffected by regulated flows. Changes in water temperature, stream flow, and sedimentation resulting from the project are discussed in Section 3.2.2.2, Environmental Consequences, of the DEIS.</p>
<p>10-P</p>	<p>It appears that the raw water pipe from Wood Creek was costed to handle the whole water need of Jackson County (3.5 mgd) instead of the incremental water need. There is already about 1 mgd available in Jackson County, so the incremental need is only 2.5 mgd. Of this 2.5 mgd, much of the need is still many years out, allowing for some alternative solutions, which leads me to my next point.</p>	<p>10-N: Not all of the sources of funding for the project that were listed in the DEIS are certain. After publication of the Final EIS and ROD, some funders may opt not to help finance the project. However, even if the project’s capital costs were to be entirely funded by grants and loans from outside Jackson County, water rates would still rise substantially. Depending on the alternative selected, monthly rates could rise by 15 to over 50 percent. A discussion of the impacts on water rates per alternative is provided in Section 3.2.12, Socioeconomics, of this FEIS.</p>
<p>10-Q</p>	<p>What I think is perhaps the biggest omission of all, the alternative of pumping treated water from the Wood Creek Reservoir was not even considered. An expansion of the treatment plant on the Wood Creek Reservoir would allow the piping of treated water to Jackson County. This could potentially be connected into the Jackson County distribution system without building a pipe all the way to the Jackson County treatment plant, saving much in construction costs. Since Jackson County would need to increase its treatment capacity, it doesn’t much matter whether the money is spent expanding their plant or the Wood Creek plant.</p>	<p>10-O: Obtaining treated water from Wood Creek Lake Water District has been added as a reasonable alternative in this FEIS. Refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS for more information.</p>
<p>10-R</p>	<p>A variation of this plan would pump raw water from Wood Creek Reservoir to Jackson County and a new treatment plant on the southwest side of Jackson County. Again this could hook into the existing distribution system and avoiding the construction of a raw water pipe to the treatment plant.</p> <p>Another important point to consider in evaluating a pipe to Wood Creek is that it is much more readily expanded in the future (i.e. 50 years and beyond) than any of the lake options would be.</p>	<p>10-P: Existing water supplies in Jackson County were incorporated into the revised water needs projections presented in Section 1.2.1.4, Projected Water Needs, of this FEIS.</p>
<p>10-S</p>	<p>Conclusions: The Executive Summary is correct in pointing out that the nation has moved beyond the era of dam building. The habitat destruction from dams has contributed to the fact that 1/3 of all fresh water mussels are rare, endangered or extinct and many more are threatened (Nature Conservancy). Around the country old dams are being taken down to restore habitat. There is even a serious proposal to remove four large dams on the Snake River. The past century has seen the construction of tens of thousands of dams, leaving very few free flowing streams. The precious few that remain need be protected.</p>	<p>10-Q: Please refer to the response to comment 10-O. If this alternative is chosen as the action to be taken, expansion of the JCWA Treatment Plant would not go forward. Plans are currently underway to upgrade the Wood Creek Water District Treatment Plant. This is further discussed in Section 2.4.2.6, Wood Creek Lake Pipeline, of this FEIS.</p>

Comments on Jackson County Lake Project Draft EIS

Responses

<p>10-T</p> <p>swimming and camping opportunities provided would not make a significant impact on the economy or draw from a very wide area.</p> <p>Opportunities exist for sourcing water from Wood Creek Reservoir that were not studied. They offer the potential for cost savings and increased flexibility in planning and implementing water supply in the future. Therefore we strongly urge that these opportunities be given serious consideration.</p> <p>Thank you for the opportunity to comment.</p> <p>Sincerely,</p> <p>Ray Barry, President Kentucky Conservation Committee</p>	<p>10-R: A pipeline to an existing water supply source would not necessarily be more readily expandable than a reservoir due to the costs involved. The existing pipeline would have to be replaced by one with a larger diameter, requiring different valves and other structures over its entire length.</p> <p>10-S: The commenter is correct in that, as stated in Section 2.4.1.4, Facility Operation, of the DEIS, restrictions may be placed on the use of motor-operated boats on the reservoir. Impacts of the recreational facilities to be provided by the reservoir on the economy of Jackson County are provided in Section 3.2.12, Socioeconomics, of the DEIS.</p> <p>10-T: Obtaining treated water from Wood Creek Lake Water District has been added as a reasonable alternative in this FEIS. Refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS for more information.</p>
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Comments on Jackson County Lake Project Draft EIS

Responses



Sierra Club
Cumberland Chapter

P.O. Box 4307
Midway, KY. 40347
July 10, 2000

SENT VIA FAX (202) 720-0820

Mark S. Plank
USDA, Rural Utilities Service
Engineering & Environmental Staff
Mail Stop 1571
1400 Independence Ave. SW
Washington, D.C. 20250

RE: Proposed Jackson County Lake Project

Dear Sir:

These comments are submitted on behalf of the Cumberland Chapter of Sierra Club, an environmental organization with more than 3500 members across the state of Kentucky. Sierra Club has been involved in issues of water quality and water quantity in the Commonwealth since its inception. In fact, the Cumberland Chapter was originally organized in 1968 around opposition to a proposed dam project on public and private land in Red River Gorge.

11-A | The Cumberland Chapter supports efforts to provide potable water to the residents of Jackson County. However, based on the information published in the Draft Environmental Impact Statement for the proposed Jackson County Lake, the Cumberland Chapter does not support the USDA's preferred alternative to accomplish that goal. We believe that additional investigation by the agency would demonstrate that using existing surface water sources, such as Wood Creek Lake in northern Laurel County, would be the most sensible solution for providing drinking water to unserved areas. Our conclusions are based on the following issues.

11-B |

11-A: Comment noted.

11-B: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS. Obtaining treated water from Wood Creek Lake Water District has been added as a reasonable alternative in this FEIS.

Comments on Jackson County Lake Project Draft EIS

Responses

1. Purpose and Need

The stated purpose of the project is to provide adequate water supplies for the projected residential, commercial and industrial needs of Jackson County over the next 50 years and to provide recreational opportunities to meet present and future needs. The DEIS claims to document these needs adequately with a 'Water Needs Analysis' and a 'Recreational Needs Analysis' included in the Appendix. However, the water needs are greatly overstated and the recreational needs are simply not justified by the studies discussed.

Certainly, there is no question that Jackson's County's potable water needs are currently not being met since only 70% of the population has access to public water supplies. The proposed USDA-RUS project is expected to increase the population served to 85 percent. However, the water needs analysis in the DEIS Appendix greatly exaggerates the extent of the problem. For example, the low, moderate and high population projections contained in Appendix E, Table 9, Page E-25, on which the needs analysis is based, are greatly inflated. The most recent actual count, the 1990 Census, reported a population total of 11,955 for Jackson County. In 1980, the count was 11,996, and as far back as 1930, the count was 10,467. Based on the historical records of population growth from the Kentucky State Data Center at the University of Louisville (attached to this letter), it is not reasonable to assume that a county whose population has not grown appreciably over the last 70 years will suddenly more than double in the next 50 years. In this rural area, we should not be calculating future water needs based on growth rates that range from .5% to 1.5% per year. The Regional Needs Assessment is similarly inflated.

Nor does the 'Recreational Needs Analysis' in Appendix F actually document a deficiency in available recreation, as the DEIS concludes. In fact, the study that was undertaken shows that there are 31 lakes offering all varieties of recreational opportunities within a 75 mile radius of Jackson County. As pointed out in Appendix F, Page F-14, one study has shown that "even under high growth conditions, facilities for fishing, boating, water skiing and canoeing will remain in surplus into 2020". If the agency is attempting to evaluate and fulfill the need for swimming, picnicking and hiking needs beyond the year 2020, it would be more practical to fund the construction of a few swimming pools and retain for future generations the existing hiking trails in the Daniel Boone National Forest which will be destroyed if the War Fork Dam proposal is selected.

11-C: The KPR low, moderate, and high projections used in the DEIS are now considered to be obsolete. KPR now publishes only one set of population projections. In view of these updated projections, population projections for Jackson County have been recalculated, and are presented in this FEIS in Section 1.2.1.2.2, Population Projections. These new population projection take into account recent trends in population growth in Jackson County.

11-D: The *Final Recreational Needs Analysis for the Jackson County Lake Project*, Appendix F of the DEIS, documented a deficiency in camping, hiking, swimming, and picnicking facilities now, and increasing needs for these facilities in the future. Swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes. Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A reservoir not only presents a more natural setting for swimming and water contact, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, the construction of swimming pools around the County would require different funding than that designated for the reservoir, and would most likely come from local sources. In any case, the primary purpose of the proposed reservoir is for water supply; any swimming that may occur at the reservoir would be an incidental benefit of the facility.

Comments on Jackson County Lake Project Draft EIS

Responses

<p>11-E</p> <p>Furthermore, the DEIS fails to adequately evaluate the relationship of and costs associated with constructing a lake of this size intended for two competing uses, drinking water supply and recreational opportunities. As Kentucky Resources Council cautioned in September, 1997, when this project was being proposed at another location, "The two [uses] are not necessarily compatible, and protection of the source of water supply may (and often does) entail a curtailment of the development of the resource for recreational purposes (including limits on swimming, boating, land development around the lake, etc.)."</p>	<p>11-E: It was inferred that the commenter is referring to costs associated with treating water, which has come from a recreational use reservoir, for drinking purposes. Primary contact recreation, such as swimming, would likely have no appreciable effect on water treatment costs because water treatment plants are already treating for any contaminants that contact recreation may introduce. In addition, it may be arguable that allowing primary contact recreation in a drinking water reservoir would lead to higher water quality arriving at the treatment plant because greater care would be taken to protect the water quality to which recreationalists would be exposed (Lange, 2000b).</p>
<p>11-F</p> <p>The DEIS, Page 3-54, notes that Kentucky's administrative regulations for water supply reservoirs, located at 401 KAR 8:020, recommend against allowing swimming, water skiing and other contact sports and large motor-operated craft or any craft with toilets. However, the DEIS fails to incorporate this fact into its conclusion that the proposed lake can serve as both a drinking water supply and a recreational waterbody.</p>	<p>11-F: Section 3.2.2, Surface and Groundwater Resources, of the DEIS discusses the combined use of a reservoir for drinking water and recreational purposes. Generally, water treatment plants are able to handle these combined uses using typical, or in some cases, altered, treatment technologies. In addition, use of a multi-level water intake structure may help to avoid uptake of accidental fuel or oil spills. Please refer to Section 3.2.2 of the DEIS for further information.</p>
<p>2. War Fork's Wild & Scenic Status</p> <p>Since 1982, War Fork has been listed in the Nationwide Rivers Inventory (NRI). The NRI is a listing of the nation's remaining outstanding free-flowing river segments that could potentially qualify as national wild, scenic or recreational river areas under the National Wild and Scenic Rivers Act of 1968 (NWSRA). The NRI is a partial fulfillment of requirements in Section 5(d) of the NWSRA.</p> <p>A presidential directive and subsequent instructions listed by the Council on Environmental Quality and codified in agency manuals require that each federal agency, as part of its normal planning and review processes, take care to avoid or mitigate adverse effects on rivers identified in the NRI. Furthermore, all agencies are required to consult with the National Park Service prior to taking actions which could effectively foreclose wild, scenic or recreational status for rivers on the inventory.</p>	<p>11-G: The segment of War Fork upstream of Turkey Foot Campground, there the proposed War Fork and Steer Fork dam and reservoir would be located, was not recommended for inclusion into the National Wild and Scenic Rivers System. The segment of War Fork downstream of Turkey Foot Campground to the confluence with Station Camp Creek has been proposed for classification as "Scenic" by the USFS. The basis for this classification is discussed in Section 3.2.2.1.1, War Fork and Steer Fork, of the DEIS. The scenic value of this segment would likely be unaffected by regulated flows. Comment noted.</p>
<p>11-G</p> <p>The NRI identifies the following outstandingly remarkable values of the listed segment of Station Camp Creek and War Fork, from river mile 14 at Alumbaugh to river mile 32 near Privett, which includes all of War Fork, both the segment proposed for the reservoir and the segment downstream from Turkey Foot: Scenic, Recreational, Geologic, Fish and Wildlife.</p> <p>The Wild and Scenic River Eligibility Study conducted by the United States Forest Service has already determined that the segment of War Fork from Turkey Foot downstream to the confluence</p>	

Comments on Jackson County Lake Project Draft EIS

Responses

with Station Camp Creek is eligible for inclusion in the Wild and Scenic Rivers System by virtue of its "outstandingly remarkable" values. The proposed reservoir presented as USDA's preferred alternative, which will reduce flows in this segment of War Fork by up to 63%, will cause significant adverse effects on this stream segment in terms of aquatic life, recreational use and, possibly, scenic qualities --- in violation of CEQ guidelines and presidential directives. The reservoir would not have to continually release enough water so that flow reductions did not adversely effect aquatic life downstream of the reservoir. This issue is not adequately addressed in the DEIS.

The DEIS at Page 3-91 states that "If the War Fork and Steer Fork site is chosen as the final project location, the aggregate effect on biological resources within the upper reaches of the Wild and Scenic Study River Segment downstream would be moderately significant". This is an unacceptable impact.

According to the DEIS, Page 3-114, existing recreational uses of the Turkey Foot Recreational Area downstream would be heavily impacted during construction of the proposed War Fork Dam. These impacts would be permanent for the most part. Flow reductions would continue to negatively impact swimming, trout fishing and aquatic life. Sediment from construction activities could likewise affect these same uses. The undeveloped nature of Turkey Foot would be irreparably damaged by the presence of a huge concrete dam situated one-half mile upstream, as has been pointed out by another state agency.

According to the Kentucky State Nature Preserves Commission, stream flow regulation from impoundments and dams on rivers can be expected to produce negative impacts both above and below the dams. Below the dam, changes in flow and temperature regimes, water clarity and water chemistry affect plant and animal community composition and structure and modify ecosystem function downstream. "The biological effects of river regulation begin with the loss of riverine habitat under the reservoir and the virtual elimination of up and/or downstream movement by aquatic organisms. Reduction in stream flow variation alters the river's connection to the floodplain, which can reduce floodplain productivity and redirect succession. Benthic invertebrate communities can experience reduced species richness, but increased abundance, resulting from physical and chemical alterations, and from habitat loss. Stream organisms are highly adapted to periodic variation in stream flow and temperature. Disruption of these variations can affect community composition, reproductive success, and development. In summary, river regulation disrupts dynamic physical, chemical, and biological

11-H: The DEIS discusses the potential short- and long-term impacts on Turkey Foot Campground, and recreation associated with that Campground, in Section 2.3.6, Recreation.

Comments on Jackson County Lake Project Draft EIS

Responses

conditions that connect headwaters to stream mouth and influence or determine biological community composition, structure and function."

11-I In the various summaries of impacts, the DEIS lists many of these expected adverse impacts as possibilities, but fails to adequately evaluate their significance.

3. Endangered Species

The Endangered Species Act, 16 U.S.C. 1531(c)(2), declares that it is the policy of Congress that federal agencies shall cooperate with state and local agencies to resolve water resource issues in concert with conservation of endangered species. Section 7 of that Act requires all federal agencies to take whatever steps are necessary to insure that actions authorized, funded or carried out by them do not jeopardize the continued existence of listed species or result in the destruction or modification of habitat of such species.

11-J With regard to endangered species at War Fork, the DEIS at Page xix admits that the proposal may be controversial because of the proximity of documented populations and hibernacula of federally listed endangered Indiana bats and Virginia big-eared bats. Whether or not they have netted bats of these species in their preliminary EIS fieldwork is irrelevant, since representatives of the USFS and the U.S. Fish & Wildlife Service have already indicated to the agency that Indiana bats use the War Fork site as foraging habitat. When will the results of the bat survey that is mentioned in the Executive Summary be available? Where are the results of the spring 2000 survey of the federally listed running buffalo clover ?

The DEIS fails to adequately address the potential for harm to bat populations.

4. Significance of Karst Topography

The DEIS mentions the existence of karst topography in the vicinity of the proposed War Fork Dam but seriously understates the significance of that fact. Pages 3-87 and 3-88 mention the possibility that an upstream reservoir at War Fork could lead to seepage, dissolution of limestone, underground channel formation, utilization or enlargement and the eventual flooding of caves used for roosting and hibernacula by endangered bats.

11-K Why hasn't the agency consulted an experienced karst hydrogeologist concerning these issues prior to selecting a

11-I: Potential impacts resulting from the project were evaluated according to the significance criteria listed in Appendix C of the DEIS. A discussion on how these criteria were developed is also provided in Appendix C. Comment noted.

11-J: The endangered bats survey and the spring 2000 survey for the running buffalo clover have been completed and are included in this FEIS as Appendix T.

11-K: A visual reconnaissance was performed at the proposed War Fork and Steer Fork site due to concerns of reported limestone outcrops in the vicinity of the site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.

Comments on Jackson County Lake Project Draft EIS

Responses

preferred alternative? Karst issues require advance study by an actual trained karst hydrogeologist - particularly when the agency is considering construction of a multi-million dollar dam in a questionable location. These issues should not be left to a geotechnical engineer hired after the fact in order to try to make the project work.

5. Use of Prime Forestland

The permanent flooding of 116 acres of publicly-owned forestland in the Daniel Boone National Forest is, indeed, a concern of the Cumberland Chapter -- especially where access to public water is readily available from Wood Creek Lake by constructing a pipeline. How can the agency or the public support this project without more specific information concerning the proposed land exchange with the USFS?

The dam project proposed for War Fork will ultimately destroy Turkey Foot Recreational Area and the surrounding hiking trails which are already a popular tourist attraction that brings some additional money into the local economy.

From the economic development standpoint of an empowerment zone project, it would clearly be more practical (and profitable) to promote the eco-tourism aspect of Jackson County's natural assets rather than destroy them. The DEIS does not describe any direct economic benefit to be derived by Jackson County from this project, and there are already an abundance of recreational lakes in the area.

6. Cost Analysis

The cost estimates for the War Fork site are incomplete. The total cost of \$10,805,000 reported in the DEIS fails to take into account the cost of purchasing land for the USFS land exchange, the cost of maintenance of the 300' buffer around the proposed lake, or the cost of construction and operation & maintenance of the necessary recreational facilities to be built on the lake.

If the agency had considered all the costs associated with the War Fork project, the total might easily exceed the estimated \$13,804,000 projected cost for a pipeline from Wood Creek Lake to the JCWA Treatment Plant. The Wood Creek Lake pipeline was summarily dismissed as too expensive. Yet, if all the costs of the preferred alternative were factored in, the pipeline option would prove to be both preferable from an environmental impact perspective and more cost-effective.

11-L: If a reservoir is decided as the action to be taken, and the War Fork and Steer Fork site is chosen as the reservoir site, the USFS will prepare an EA on the necessary land exchange or SUP for the project. This EA would include specific information concerning the exchange, if it is to be conducted, and the environmental impacts of the proposal.

11-M: As discussed in Section 3.2.6, Recreation, of the DEIS, Turkey Foot Campground would be heavily impacted during construction of the dam and reservoir at the War Fork and Steer Fork project site. The swimming area might not be useable during this time, and fishing would be limited due to water quality issues. Turkey Foot Campground could also be adversely impacted over the lifetime of the dam and reservoir due to changes in water quality and flows. However, new recreation facilities would be constructed around, and other recreational opportunities would be supplied by, the proposed reservoir. See Section 3.2.6 of the DEIS for more detailed information.

11-N: Although the number of recreation-associated jobs created by the reservoir would be insignificant, due to the self-serve nature of most proposed facilities and recreation opportunities, the availability of additional water in Jackson County would provide an incentive for industry to locate in the County. Currently, the primary inhibitor to growth of industry in Jackson County is the provision of utilities such as water. This and other direct economic benefits that would be derived from the proposed reservoir are discussed in Section 3.2.12, Socioeconomics, of the DEIS.

11-O: New cost estimates were prepared for each of the dam and reservoir sites, and for a pipeline from Wood Creek Lake and Lock 14 of the Kentucky River, and are included in this FEIS in Section 2.0. Line item cost estimates are included in this FEIS as Appendix Q. These new estimates include land acquisition costs for the buffer zone and potential maximum flood area of the reservoir.

11-P: Refer to the responses to comments 11-O and 11-B above.

Comments on Jackson County Lake Project Draft EIS

Responses

Please include this letter in the administrative record.
Thank you for the opportunity to comment.

Yours truly,

Betsy Bennett

Betsy Bennett
Conservation Chair

Comments on Jackson County Lake Project Draft EIS

Responses



RE: DEIS For Jackson Co. Lake Project

July 7, 2000

Dear USDA Rural Utilities Service:

Thank you for the opportunity to comment on the proposed dam for Jackson Co. We oppose this project as an unnecessary and wasteful expenditure of public money that will sacrifice irreplaceable public land.

The DEIS is flawed for several reasons

1) site specific data and up-to-date information is not utilized in the analyses. Boiler plate models and analysis do not satisfy NEPA

2) Federally listed species will NOT be protected in the preferred alternative. The ESA demands that listed species protection be agencies' highest priority; the War Fork alternative will clearly ~~not~~ harm both listed species and their habitat.

3) The War Fork alternative represents the highest quality habitat of all the alternatives; how then was it chosen as the preferred location? Other locations would obviously create ~~more~~ less damage.

4) The DEIS fails to explore in sufficient detail other options for providing a water

660 Mount Vernon Ridge - Frankfort, Kentucky 40601

12-A: Comment noted.

12-B: All data used in the EIS is as site-specific and current as available. New cost estimates were prepared for each of the dam and reservoir sites, and for a pipeline from Wood Creek Lake and Lock 14 of the Kentucky River, and are included in this FEIS in Section 2.0. Line item cost estimates are included in this FEIS as Appendix Q.

12-C: The Federal Endangered Species Act (ESA) prohibits the harming of any species listed by the USFWS as being either threatened or endangered. As stated in Section 3.2.4.3, Mitigation, and in Section 5.0, Mitigation Summary, of the DEIS, informal consultation would be continued, or formal consultation undertaken, with the USFWS under Section 7 of the ESA, depending on the results of the surveys for threatened and endangered Species.

12-D: An explanation of the selection of the War Fork and Steer Fork reservoir site as the USDA, RUS preferred alternative is given in Section 2.6, Preferred Alternative, of the DEIS.

12-E: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

12-F: Most of the issues cited by the commenter were not discussed in the cumulative impacts section because, along with many other issues that might conceivably be listed, they were not considered likely to generate noteworthy or significant cumulative impacts within the spatial and temporal periods established for the cumulative impacts analysis (the region of influence, or ROI). For example, with regard to threatened and endangered species, no cumulative impacts are

Comments on Jackson County Lake Project Draft EIS

Responses

12-E	<p>source for the community. Sufficient rationale for dismissing other alternatives is not sufficient especially given the trend away from dam building and the existence of alternative technologies in water resource needs.</p>	<p>apparent, in part because the project itself is not expected to adversely impact any sensitive species. With regard to forest habitat, a dam and reservoir at the War Fork and Steer Fork site would permanently eliminate only 0.07 percent of the bottomland or cove hardwood forest on the DBNF. None of the other projects, actions, or long-term trends within the cumulative impacts ROI, when combined with this removal, would produce substantial impacts. Likewise, the Jackson County Lake Project is not likely to trigger any impacts related to the introduction and propagation of exotic species.</p>
12-F	<p>5) The DEIS fails completely to discuss cumulative impacts on listed & sensitive species, recreation, water quality, habitat needs, demand for public lands, forest fragmentation, exotic species, population overloading and accompanying stresses due to habitat destruction, and ground water</p>	<p>While the issues cited by the commenter are not discussed individually in the text of Section 4.0, Cumulative Impacts, they are each considered in the summary tables of short and long-term cumulative impacts related to the project. Please refer to these tables.</p>
12-G	<p>6) The DEIS fails to assess how the community will be able to pay for an expansion of the water plant & addition of water lines which will be necessary before the water can be utilized.</p>	<p>12-G: The expansion of the JCWA Treatment Plant, if it occurs, would be funded by a RUS loan, which has already been approved. Additional water distribution lines would be funded by the JCWA, and by increases in user water rates.</p>
12-H	<p>7) Connecting with the Madison Co. for a supplemental water supply for the western section of the County is not considered.</p>	<p>12-H: South Madison Water Association currently purchases all of their water from Berea College Water Utility Department (Williams, 2000c). As noted in Section 1.2.1.3, Regional Demands, of the DEIS, Berea College is in need for an additional water supply. In addition, the costs of construction and operation of a pipeline from Berea College to the JCWA Treatment Plant would be very large, given the distance between the two water utilities and pumping costs over Big Hill.</p>
12-I	<p>8) Calculations of water needs are grossly inflated and do not resemble current needs or even 100 year needs. Alternatives that reflect reasonable needs and contemplate smaller lake construction MUST be considered.</p>	<p>12-I: Projected water needs for Jackson County and the surrounding region were revised for this FEIS, and are presented in Section 1.2.1, Water Supply, of this FEIS. Based on the revised water needs analysis and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated</p>
12-J	<p>9) Full socio economic impacts have not been considered. The value of standing →</p>	

Comments on Jackson County Lake Project Draft EIS

Responses

<p>12-J forests for pollution control, climate regulation, pollination, water filtration, flood control, pollination, carbon sequestration, medicinal plants, and food have not been considered. Costs of deforesting the War Fork area based on the current ecosystem services they provide have not been calculated.</p> <p>12-K The effects of refurbishing the water plant and water lines will likely result in costly, unacceptable increases in residents water bills. This was not considered in the analysis.</p> <p>12-L 10) Estimating a 15% water loss in the lines and system is too high. The KY Division of Water currently considered a 15% loss an unacceptably high loss.</p> <p>12-M 11) Population growth projections are grossly overestimated. EZ have not demonstrated that prospective industries will locate in the area. The suitability of EZ's designated industrial lands have not been analyzed for commercial development. The growth rate used in the DEIS has NOT been justified.</p> <p>12-O 12) The Farmland Policy Act requires that</p>	<p>in Section 3.0, Environmental Analysis, of this FEIS.</p> <p>12-J: Most of the issues mentioned here are not truly significant to the action in question (see 40 CFR 1500.2 (b)). If a reservoir is chosen as the action to be taken, and the War Fork and Steer Fork site is chosen as the final reservoir location, the amount of clearing that would be necessary would have a negligible impact on climate, pollution control, pollination, medicinal plants, carbon sequestration, water filtration, food, and flood control. In addition, the USFS would conduct an EA on the land exchange or SUP, which would assess any relevant impacts of these actions on the environment.</p> <p>12-K: Water distribution lines are continually being replaced and/or expanded in Jackson County, as elsewhere. This is typically paid for by a mix of loan and grant money, in addition to increases in water rates. A water rate increase of 5.5 percent went into effect in June, 2000, which will pay for the upgrade and expansion of the JCWA water treatment plant, or other water system projects. The JCWA board considered this an acceptable increase (Williams, 2000d).</p> <p>12-L: An explanation for the use of the 15 percent line loss factor in the water needs analysis is presented in Section 1.2.1.4, Projected Water Needs, of this FEIS.</p> <p>12-M: The KPR low, moderate, and high projections used in the <i>Final Water Needs Analysis</i> of the DEIS are now considered to be obsolete. KPR now publishes only one set of population projections. In view of these updated projections, projections for Jackson County have been recalculated, and are presented in this FEIS in Section 1.2.1.2.2, Population Projections.</p> <p>12-N: As noted in Section 1.2.1.2.1, Projected Water Consumption Rates, of the DEIS, industrial development was projected by the Jackson County-McKee Industrial Development Authority. Please refer to that section of the DEIS for more information.</p> <p>12-O: Impacts on Prime Farmlands and Farmlands of Statewide Importance are discussed in Section 3.2.8, Land Use, of the DEIS.</p>
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Comments on Jackson County Lake Project Draft EIS

Responses

<p>impacts on prime farmland be assessed; this was not done.</p>	<p>12-P: The <i>Recreational Needs Analysis for the Proposed Jackson County Lake Project</i> (Appendix F of the DEIS) used a 75-mile radius around Jackson County, which included facilities within Jackson County, to represent a recreation supply study area. To quantify the facility supplies and needs of various recreation facilities, including camping, swimming, and picnicking, in the study area during the 1989 to 1994 planning period, data from the 1989 KY Statewide Comprehensive Outdoor Recreation Plan (SCORP) were used in the analysis. See Section 1.2.2, Recreation Needs, of the DEIS.</p>
<p>12-P 13) The DEIS overinflates recreational needs for camping, swimming, and picnicking because it completely fails to acknowledge the presence of attractive sites for all such activities on the Daniel Boone Mt. Forest and other nearby facilities such as city parks and pools.</p>	<p>12-Q: Primary and secondary contact recreation, such as swimming and fishing, respectively, would likely have no appreciable effect on water treatment costs because treatment plants already treat for any contaminants that these types of recreation may introduce (Lange, 2000b).</p>
<p>12-R Fishing is not compatible with drinking water treatment + standards. This has not been addressed. Fishing increases treatment costs.</p>	<p>12-R: Based on the revised water needs presented in Section 1.2.1, Water Supply, of this FEIS, smaller reservoir alternatives and pumped storage alternatives have been reassessed in this FEIS. Refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS for more information.</p>
<p>12-S 14) The inflated water needs biased the analysis against smaller lake proposals + alternative water sources such as interbasin water transfers.</p>	<p>12-S: A visual reconnaissance was performed at the proposed War Fork and Steer Fork site due to concerns of reported limestone outcrops in the vicinity of the site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.</p>
<p>12-T 15) The geological analysis is too general to adequately assess impacts to karst + cave features. Absence of site specific information highlights the analysis of every category in the DEIS.</p>	<p>12-T: All data used in the EIS is as site-specific and current as available. New cost estimates were prepared for each of the dam and reservoir sites, and for a pipeline from Wood Creek Lake and Lock 14 of the Kentucky River, and are included in this FEIS in Section 2.0. Line item cost estimates are included in this FEIS as Appendix Q.</p>
<p>12-U We intend to work to insure that your legal obligations are fully met for this project. The DEIS as currently stands must be rewritten to demonstrate compliance with NEPA, ESA, etc.</p> <p>Sincerely, Chris Schimmöeller Dr. For KY Heartwood</p>	<p>12-U: Comment noted.</p>

Comments on Jackson County Lake Project Draft EIS



**Appalachia-Science
in the Public Interest**
50 Lair St, Mt Vernon,
Kentucky 40456-9806

DRAFT EIS PROPOSED JACKSON COUNTY LAKE PROJECT
Comments by AL FRITSCH, Ph.D.

- 13-A | The Jackson County EIS Report which is being considered here is quite voluminous and could even be intimidating. However, after wading through this report there still seems to be three major questions to be answered:
- 13-B | 1. **Establish Water Need.** Isn't it necessary to establish a water need before speaking about a new lake or type of water source, especially if the development of these sources would affect the environment to some degree?
- 13-C | In 1999 Kentucky suffered the worst drought since 1930. Many other states in the South, Midwest and West are reporting water shortages; in a recent issue of the *Lexington Herald* a well placed article described a local water source for Jackson County to be quite low -- thus suggesting to the Kentucky public that Jackson County has an acute water shortage. To deny that available fresh water supply is a problem in dry times would be burying one's head in the sand. However, what is the degree of the water shortage based on domestic and anticipated growth in any of the sectors such as domestic, agriculture, industry, and commerce including recreation? If the shortage actually exists, it would seem that interconnecting the country water supply system with neighboring Laurel County's Woods Creek Lake and its surplus water would be the first priority and could be achieved several years sooner than waiting for a lake to be built.
- 13-D | The Woods Creek Lake connection is said to cost \$13,804,000, a sum large enough that it would have been best to show a breakdown of line items. War Fork would cost \$10,805,000 and the smaller Sturgeon Creek \$11,600,000, again, with no breakdown of line item costs. The larger Sturgeon Creek lake is still considered a possibility even though it would cost \$30,800,000. It is uncertain whether these figures include connecting the water system and whether the extra years of Laurel County lake hook-up would be considered a benefit. The dismissal of the Woods Creek option in such a cavalier fashion is not justifiable and shows the lake bias of the report, especially since one of three options costs well over two times as much.
- 13-E | **Water Conservation** -- As mentioned in the Appendix (G-3) water conservation through permanent reduction in demand is a major option worth considering. Conservation supplements but does not replace new water supplies and so we speak of viable water source alternatives. Outsiders should not argue conservation if their own localities have higher water consumption per capita.
- 13-F |
- 13-G |
- 13-H |
- 13-I |

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Responses

- 13-A: The EIS was prepared in accordance with the requirements of NEPA. This project involves many important and complex environmental and social issues that needed to be addressed in the EIS. In doing so, the study team made every effort to make the EIS as readable as possible.
- 13-B: A water needs analysis was prepared for Jackson County prior to the DEIS, and is provided as Appendix E of the DEIS. A revised water needs analysis has been prepared for the FEIS, and is presented in Section 1.2.1, Water Supply, of this FEIS.
- 13-C: A water shortage is based on how much water is available for use. A water need is independent of how much water is available; it is based on present or anticipated water consumption. Although Section 1.2.1.1, Historical Demands, of the DEIS discusses current water shortages at each of Jackson County's primary water suppliers, the water needs analysis is based on the amount of water that will be needed in the future. In Section 1.2.1.2, Projected Demands, of this FEIS, the water needs analysis is broken down into sectors, including residential, commercial, and industrial water consumption.
- 13-D: The commenter is correct that the construction period for building a pipeline from Wood Creek Lake to the JCWA Treatment Plant would be shorter than that for a dam and reservoir. However, additional water supplies are currently being obtained through a pipeline from Laurel Fork. Please refer to Section 1.2.1, Water Supply, of this FEIS for more information. Although this is not a long-term solution, this additional water should provide for Jackson County during the construction of the dam and reservoir, should this alternative be chosen as the action to be taken.
- 13-E: New cost estimates were prepared for each of the dam and reservoir sites, and for a pipeline from Wood Creek Lake and Lock 14 of the Kentucky River, and are included in this FEIS in Section 2.0. Line item cost estimates are included in the FEIS as Appendix Q.
- 13-F: The larger Sturgeon Creek reservoir would have a larger average yield (8.5 mgd), in contrast to the 3.5 mgd average yield of the smaller Sturgeon Creek site and the War Fork and Steer Fork site. This larger yield would serve as a regional water supply for Jackson County and

Comments on Jackson County Lake Project Draft EIS

Responses

13-J	<p>2. Establish Major Impoundment Need. Is it necessary to have a major lake or couldn't water shortages be met by smaller containment units?</p>	for certain surrounding counties. The larger cost of the Sturgeon Creek, 8.5 mgd alternative reflects its larger size and its regional purpose.
13-K	<p>The major driving force for this project is the influence of major construction and planning corporations -- those requiring outside expertise and money. When water is needed in a given area let's assume several basic sound ecological and economic principles: create larger numbers of smaller containment units so that the versatility will be greater and transportation costs reduced. A larger number of water impoundments would be more compatible with the environment and allow for local distribution of construction funds.</p>	13-G: Please refer to the response to comment 13-E above. Costs for each reservoir alternative include the cost of a pipeline from the reservoir to the JCWA Treatment Plant. The Wood Creek Lake alternative is discussed and evaluated in this FEIS in Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis.
13-L	<p>We at ASPI operate on the ecological principle that a given local area should provide for its basics, namely, food, building materials, energy, and water. The rainwater falling on Jackson and surrounding counties will under ordinary circumstances meet foreseeable domestic needs.</p>	13-H: Please refer to the response to comment 13-G above.
13-M	<p><u>Farm Ponds</u> -- For instance, it is better to make a multiple number of small farm ponds than a major one to supply several farms. The watershed can be better controlled and the mechanism for administering water would be far less complex. Smaller units allow more localized distribution of construction money.</p>	13-I: Comment noted.
13-N	<p><u>Cisterns and DCTs</u> -- If domestic cisterns were installed along with dry composting toilets in every household in the County (an average of \$2,000 per household) domestic water use would be halved, money would stay in the county, and local labor would be used.</p>	13-J: Water needs may, in fact, be met by multiple, smaller containment units. However, the costs of constructing and maintaining a larger number of containment units, and treating water from them, would be prohibitive.
13-O	<p><u>Larger lakes</u> have major environmental and other problems, namely, removal of local people from the flooded zones, disruption of wildlife nesting areas, feeding places and migrating routes, the creation of "hungry" water which has more erosion potential downstream, release of different temperatures and amounts of water -- and thus disrupting aquatic life below the dam areas -- and changes in the microclimate. Granted, some of these factors are less severe given the size of the lake anticipated.</p>	13-K: It was inferred that the commenter believes costs for transportation of water from multiple, smaller lakes would be less than such costs for a single, larger reservoir. As water from any size lake would be first transported to the JCWA Treatment Plant for treatment, multiple smaller-diameter pipelines built from several locations would be more expensive due to greater construction, operation, and maintenance efforts. In addition, a several smaller lakes would not necessarily be more compatible with the environment than a single, larger lake.
13-P	<p><u>Medium-sized lakes</u> would not be as disruptive as the bigger ones, but they can have serious environmental impacts, i.e., stream flow changes, wildlife disruption, tree cutting, and understory destruction. The proposed dam sites on the War Fork (3.5 million gallons of water per day) or the two different sized dams on Sturgeon Creek (8.5 mgd) either below its confluence with Blackwater Creek (8.5 mgd) or above the Confluence (3.5 Mgd) would have an environmental impact and certainly far more than the connections with the existing Woods Creek Lake.</p>	Environmental impacts of a project can largely depend on the existing conditions at a site, such as whether Federally-listed species are present on the site, what the current land uses are, and so on. Also, the edge effects of multiple lakes would fragment more natural habitat. Financial costs of a several smaller lakes would be much higher, given permitting issues, site acquisition and preparation, and maintenance. Although construction funds may partially be distributed locally, certain construction materials and specialized personnel, may still need to be obtained from out-of-County sources regardless of the lake size.
13-Q		13-L: Rainwater falling on the region may, under ordinary circumstances, meet foreseeable domestic needs, but foreseeable commercial and industrial needs would not be met. In addition, rainwater falling over a given year may not be of reliable quantity to meet projected water needs.

Comments on Jackson County Lake Project Draft EIS

Responses

<p>13-S 3. Establish that the New Lake will increase Employment. Since this is a study of how to advance economic empowerment, isn't it proper to show that employment for recreation or tourism or industry could be advanced by any use of funds for a lake of moderate size?</p> <p>13-T South Central Kentucky is an areas which already has numerous artificial lakes and these have spawned a water recreation industry (fishing, boating, water skiing, etc.) of major proportions. However, the beauty of Jackson County rests in its rugged wooded landscapes which are ideal for sightseeing, the most popular form of tourism by far (over forty percent of all tourist dollars go for this activity). In fact, the area a few miles south of McKee, which has incredible natural beauty and would be a park in most states with its flowing creek, wooded slopes and groves of hemlocks, is a major dump site on the Atkinstown Road. Cleaning up that and other sites for tourism would be a healthy way to improve the environment and add tourist dollars to the state.</p> <p>13-U On the other hand, the building of the lake could mar the beauty of a rugged natural landscape and may even reduce the potential for sightseeing as a tourist activity. The first priority is to clean up the garbage and litter in this and neighboring counties (including our Rockcastle County) and making these more attractive to tourists to this region. Then a concerted effort must be made to attract visitors who like to see the immense beauty of this part of Kentucky.</p> <p>13-V It may not be possible to compete with the established lake country to the west, but some effort to attract non-water related tourism could prove beneficial.</p> <p>13-W This report's appendix (F-14) says that even under high growth conditions, facilities for fishing, boating, water skiing, and canoeing will remain in surplus into 2020. Based on the amount of surplus the current supply will adequately meet the demand for these activities in the study area beyond the year 2020. However, there will be increasing needs for additional camping, picnicking, hiking and swimming facilities in the future. Three of these four potential activities could be achieved by non-water-related improvement and the last could be handled especially in the lake district immediately to the west of Jackson County. However a municipal pool could satisfy local swimming needs at far lower cost than the construction of an entire lake of the size discussed.</p>	<p>13-M: It was inferred by 'controlling the watershed' the commenter meant that by constructing multiple, small farm ponds within a watershed, a larger quantity and better quality of water would be captured than from one larger reservoir in that watershed. There is a finite amount of water falling within any watershed. This amount does not increase or decrease based on the number of lakes within a watershed. Management of multiple, smaller lakes for water quality would prove to be much more difficult and costly than management of a single reservoir. Administration of water from multiple smaller lakes would still require adequate treatment, and would probably need to be transported to the JCWA Treatment Plant. Please refer to the response to comment 13-K above.</p> <p>13-N: Installing cisterns and/or dry composting toilets in every household in Jackson County may decrease residential consumption rates, and thus, projected residential water demand, but it would do nothing for commercial or industrial consumption rates and water demands. See Section 1.2.1, Water Supply, of this FEIS.</p> <p>13-O: The DEIS investigates all of the environmental issues related to constructing a dam and reservoir listed. Please refer to Section 3.2 of the DEIS. The size of the proposed reservoir is not the only factor in assessing environment impacts of a reservoir. Impacts of a project heavily depend on the existing conditions at a site (see response 13-K). Each of the proposed alternative reservoirs would be less than one square mile in size, which in a regional or national context, would be considered a small facility.</p> <p>13-P: The DEIS investigates all of the major environmental issues related to constructing a dam and reservoir listed in the comment. See Section 3.2 of the DEIS.</p> <p>13-Q: The commenter is correct that dam and reservoir projects typically have greater environmental impacts than do water pipeline projects.</p> <p>13-R: As discussed in Section 3.2.12, Socioeconomics, of the DEIS, there are many interdependent tools for rural economic development. Providing additional water supplies for Jackson County is only one</p>
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	<p>of these tools. Some businesses and industry in Jackson County are currently unable to utilize their entire building space due to the lack of adequate water supplies for fire protection and other purposes. Attracting future industry to an area where business cannot fully utilize their investments would be difficult, if not impossible. Increased employment for recreation, tourism, and industry is also discussed in Section 3.2.12, Socioeconomics, of this DEIS.</p> <p>13-S: Construction of a reservoir would not eliminate sightseeing as a form of tourism in Jackson County. The proposed project may enhance this aspect of tourism by providing new habitat types for viewing and better-developed hiking trails and access. Comment noted.</p> <p>13-T: As explained in Section 3.2.14, Aesthetics, of the DEIS, construction activities associated with the dam and reservoir would significantly, but temporarily, degrade the visual quality of the project area. Upon completion of construction activities, and for the duration of its lifetime, the appearance of the dam itself may reduce the visual quality of the area, but this adverse effect would be offset by the appearance of the reservoir, which would enhance the visual quality of the area. Refer to Section 3.2.14, Aesthetics, of the DEIS for discussion of the visual quality impacts on the Wild and Scenic River Study segment downstream of the War Fork and Steer Fork site.</p> <p>13-U: The DEIS analyzes the environmental and social impacts of a dam and reservoir, the primary purpose of which is to supply Jackson County with additional water. Other tourism organizations may act to improve other aspects of the region. Comment noted.</p> <p>13-V: The primary purpose of the dam and reservoir project is to provide Jackson County with additional water supplies to meet current and projected needs. Recreation is a secondary purpose of the project, but as mentioned in Section 2.0 of the DEIS, not meeting the desire to have increased recreational opportunities would not exclude an alternative from further consideration. The area immediately west of Jackson County was factored into the recreational needs analysis, which still found that there will be increasing needs for swimming and certain other recreation facilities in the future. In addition, the construction of a lake does not preclude camping, hiking, or other “terrestrial” recreation; a reservoir may even attract such recreation.</p>
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Comments on Jackson County Lake Project Draft EIS

Responses

Carol Moore
605 Indian Gap Rd.
Frankfort, KY 40601
July 6, 2000

14-A: Comment noted.

Mark S. Plank
USDA, Rural Utilities Service
Engineering + Environmental Staff
Mail Stop 1571
Washington, DC 20250

RE: Jackson County Lake

Mr. Plank:
I object to the preferred alternative site for the Jackson County Lake because it will take our forest land on the Daniel Boone National Forest. Any taking of our National Forest, including land exchanges, is unacceptable. We have too little National Forest left now, and land exchanges like this cannot replace what is already gone. Steer Fork/War Fork is already an exceptionally important forested land, part of our National Wild Rivers Inventory, with a well-liked Forest Service camping/picnic area, Turkey Foot, adjacent to it. Numerous (over)

14-A

Comments on Jackson County Lake Project Draft EIS

Responses

14-B	<p style="text-align: center;">-2-</p> <p>rare, threatened & endangered species, ^{depend on,} the reservoir potentially use the area. Note: Bat mist-netting surveys are far from irrefutable evidence of use.</p>	14-B: The types of threatened and endangered species surveys used for this project, including bat mist-netting and cliffline surveys, are the recommended methods listed in the USFWS recovery plans for the species. While no specimens were captured during these surveys, it is noted that these species may, indeed, forage within the proposed project areas. From what is known of their life histories and feeding habits, however, it is unlikely that the creation of a reservoir of the sizes proposed in this EIS would adversely affect local populations of the species.
14-C	<p>Second, there are major flaws in the initial screening study used to choose the alternatives for the EIS.</p>	14-C: Projected water needs for Jackson County and the surrounding region were revised for this FEIS, and are presented in Section 1.2.1, Water Supply, of this FEIS. Based on the revised water needs analysis and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.
14-D	<p>The size lake needed has been inflated and this automatically eliminated many sites and alternatives that would have much less adverse impacts on the environment. These flaws are: concern water needs recreational needs, Water Needs</p>	14-D: Regional water needs have been recalculated to be 42 percent of the revised projected water needs of Jackson County, due to the elimination of Berea College's water needs.
14-E	<p>-pp. 1-13, 1-9:62% of the projected water needs are for water systems outside of Jackson County. No written agreements with any of these water systems have been obtained. Additionally, 15% water loss in lines and systems is too high an estimate. The Ky. Division of Water considers this a high water loss which is unacceptable.</p>	14-E: An explanation for the use of the 15 percent line loss factor in the water needs analysis is presented in Section 1.2.1.4, Projected Water Needs, of this FEIS.
14-F	<p>-pp. 1-12, Section 1.2.1.2.2: Population growth rates similar to Pulaski and County were used because of EZ Initiatives. However, EZ has no prospective industries. None are listed, and none were stated at the</p>	14-F: Section 4.0, Cumulative Impacts, of the DEIS discusses recent and expected industrial development in Jackson County and the surrounding region, focusing on the manufacturing and service industries. In addition, a day care center and an injection molding company have already been constructed on industrial land in Jackson County, but cannot obtain public water until additional water supplies are obtained for the County (Hefling, 2000).

Comments on Jackson County Lake Project Draft EIS

Responses

- 3 -

14-G

public meeting I attended on June 27, 2000. The suitability of EZ's designated industrial lands for commercial development has not been analyzed. Therefore, the growth rate used is not justified and needs to be lower.

14-H

Prime farmland impacts of this accepted development were not analyzed, as required by the federal Farmland Policy Act.

14-I

The above unsupportable projected water needs account for 70-80% of the total water needs. The lake size could be much smaller if only justifiable needs are used. Other alternatives in Section 2.1.3 need to be revised.

14-J

P.2-5, Section 2.1.3 Connection with Madison County (Richmond) water systems was not even considered for a supplemental water supply or for water in the western part of the county. With the new road up Big Hill, a line could now easily be run out of Madison County.

14-G: As noted in Section 1.2.1.2.1, Projected Water Consumption Rates, of the DEIS, industrial development was projected by the Jackson County-McKee Industrial Development Authority. Please refer to that section of the DEIS for more information.

14-H: Impacts on Prime Farmlands and Farmlands of Statewide Importance are discussed in Section 3.2.8, Land Use, of the DEIS.

14-I: The projected water needs for Jackson and surrounding counties have been revised and are presented in Section 1.2.1, Water Supply, of this FEIS. Based on the revised water needs analysis and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives, including smaller lake sizes, were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

14-J: South Madison Water Association currently purchases all of their water from Berea College Water Utility Department (Williams, 2000c). As noted in Section 1.2.1.3, Regional Demands, of the DEIS, Berea College is in need for an additional water supply. In addition, the costs of construction and operation of a pipeline from Berea College to the JCWA Treatment Plant would be very large, given the distance between the two water utilities and pumping costs over Big Hill.

Comments on Jackson County Lake Project Draft EIS

Responses

-4-

Recreational Needs

14-K

P. 1-13, Section 1.2.2: As stated, there is a surplus of the subject recreational needs. Even though more camping, swimming, and picnicking areas are recommended, a lake is not needed to add these uses. All alternatives & available sites were not included in your analyses. There is an excess of potential areas existing in the National Forest for picnicking, camping, & swimming already. Additional city/county parks & pools are not even mentioned.

14-L

Summary p. III; P. 1-5; Section 1.2.2: Fishing & managed fish stocking are not compatible with drinking water treatment and standards. It increased treatment costs, and this has not been addressed.

14-M

General
Summary P.P. III - XXIV: Poor planning in analyzing possible lake sites and water needs has wasted considerable amounts in tax dollars. Many of the

- 14-K: The commenter is correct in noting that a lake is not necessary to provide hiking, camping, picnicking, and swimming facilities. However, primary purpose of the proposed reservoir is for water supply; any recreational use that may occur at the reservoir would be an incidental benefit of the facility. All areas within the DBNF that have been developed for recreation were included in the Recreational Needs Analysis, Appendix F of the DEIS, from which the recreation need was derived. Any areas that have not yet been developed for these purposes would require different and additional funding than that designated for the reservoir. Swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes. Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A reservoir not only presents a more natural setting for swimming and water contact, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, the construction of swimming pools around the County would also require different funding than that designated for the reservoir, and would most likely come from local sources.
- 14-L: Primary and secondary contact recreation, such as swimming and fishing, respectively, would likely have no appreciable effect on water treatment costs because treatment plants already treat for any contaminants that these types of recreation may introduce. In terms of primary contact recreation, it could be arguable that water arriving at the treatment plant might have higher quality because greater care would be taken to protect the water quality to which primary contact recreation users are exposed (Lange, 2000b).
- 14-M: Multiple studies were conducted to select alternative sites for the proposed dam and reservoir prior to the onset of the EIS. During these preliminary studies, alternative sites were screened for factors such as eligibility for or designation as a Federal Wild and Scenic River or a Kentucky ORW, presence of threatened, endangered, or otherwise protected species in the project area, and projected yield of a reservoir at that site. Alternatives were then eliminated from further consideration based on the results of the screenings.

Comments on Jackson County Lake Project Draft EIS

Responses

-5-

14-N

sites should not even have been considered in the first place, communications and meetings early on with state and federal environmental agencies would have eliminated these sites from any proposed action or studies. The inflated unsupportable water needs biased the analysis of smaller lake proposals and alternate supply sources.

14-O

- Interbasin water transfer must be considered in the impacts analysis. You may want to contact EPA for further information as this has become a recent concern in Eastern U.S. water issues.

14-P

- The geologic analysis is too general with regards to karst effects at the War Fork site. Where is the limestone strata in relation to the lake and dam? Is it heavily karst and will this affect the holding capacity of the lake?

14-Q

- Where are the analyses of the current and future socio-economic + environmental value of the National Forest site that would be lost? The Forest Service

14-N: Please refer to the response to comment 14-I above.

14-O: Based on the revised water needs presented in Section 1.2.1, Water Supply, of this FEIS, pumped storage alternatives have been reassessed in this FEIS. Refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS for more information.

14-P: A visual reconnaissance was performed at the proposed War Fork and Steer Fork site due to concerns of reported limestone outcrops in the vicinity of the site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.

14-Q: The environmental impacts of the War Fork and Steer Fork alternative are evaluated throughout Section 3.2, Environmental Analysis, of the DEIS. Socioeconomic impacts of the War Fork and Steer Fork alternative, specifically, are discussed in Section 3.2.12.2.1 of the DEIS. Further analysis of the land exchange, if required for the War Fork and Steer Fork alternative, would be provided in an EA prepared by the USFS, should this alternative be chosen as the action to be taken.

Comments on Jackson County Lake Project Draft EIS

Responses

- 6 of 7 -

14-R

has not provided this essential data in the No Action alternative. At the public meeting the Forest Service did not even speak or sit up front with RUS, and Mangit (the consultant preparing the EIS) did not address this in their slide presentation.

Dam Construction Impacts

14-S

- Section 2.4.1.2: Standard construction BMP's would be insufficient for a project of this magnitude, over 100 acres disturbed, especially for the War Fork area. More detail needs to be provided on the site-specific mitigation measures for erosion.

14-T

- The No Action alternative needs to consider the erosion & sediment damage to the high quality aquatic communities in War Fork & Sturgeon Creek. A recent study* of the fish communities is available. Please contact the Biology Department at Eastern Ky. University.

* Graduate thesis presented at KAS 7000 Annual Meeting.

- 14-R: Please refer to the response to comment 14-Q above. Such information would not be discussed under the No Action alternative, by definition. Please refer to Section 2.3.4, No Action, of the DEIS for a more detailed discussion of this alternative.
- 14-S: As mentioned in the DEIS, soil erosion and runoff, soil stabilization, and sediment control measures, as outlined in the *Kentucky Best Management Practices for Construction Activities* (KNREPC, 1994), would be implemented during site preparation and construction activities. The manual can be applied to all types of construction activities, independent of the size of the affected area. However, as stated throughout the manual, selection of the appropriate BMPs depends on the site conditions. Until a final decision is made regarding the action to be taken, it would be premature to dictate site-specific mitigation measures for erosion. Specific mitigation measures would be determined during the permitting and planning phases of the project.
- 14-T: Section 3.2.2.1, Affected Environment, Surface and Groundwater Resources, of the DEIS discusses the existing water quality in War Fork and Sturgeon Creek. This section, along with Section 3.2.8, Land Use, also discusses activities occurring in the vicinity of these streams, which may compromise the water quality of these streams. Such activities would continue under the No Action alternative.

Comments on Jackson County Lake Project Draft EIS

Responses

- 7 of 7 -

Economic Impacts

Section 3.2.12.2: Effects on water rates used in billing customers could be unacceptable to the Public Service Commission and very costly to the customers. Where will the funding come from now to improve the water plant and extend the water distribution lines? Instead, inflating the projected water needs and adding these unjustified costs to the lake construction, the costs of improving the plant & the lines could have been included in this grant. Now the additional funds may likely require a loan because more grant money is not likely to be available. The analysis needs to consider these serious adverse impacts.

Please send me a copy of the final ROD/EIS. Thank you.

Carol Moore

cc: Council on Environmental Quality
Washington, D.C.
General Accounting Office
Washington, D.C.

14-U

14-U: The projected water needs of Jackson and surrounding counties were revised for this FEIS, and are included in Section 1.2.1, Water Supply. The revised water needs analysis projects a smaller amount of water needed than was discussed in the DEIS. Based on these new projections, additional alternatives are evaluated in this FEIS. A discussion of the impacts on water rates as a result of the proposed action is included in Section 3.2.12, Socioeconomics, of this FEIS.

Water distribution lines are continually being replaced and/or expanded in Jackson County, as elsewhere. This is typically paid for by a mix of loan and grant money, in addition to increases in water rates. A water rate increase of 5.5 percent went into effect in June, 2000, which will help pay for the upgrade and expansion of the JCWA water treatment plant, or other water system projects. The JCWA board considered this an acceptable increase (Williams, 2000d).

Comments on Jackson County Lake Project Draft EIS

Responses

15-A

Comments:

Jackson County is in some need of additional water supply. The current shortage that we're experiencing has halted economic development plans and residential area growth plans. We must begin to immediately address this issue & plan for an adequate water supply for now and the future. We must bear in mind the impact to our environment and maintain our natural resources as best we can, but a sufficient water supply is crucial to our survival now & in the future.

Dei Bowly, Mayor
City of Annville, Ky
PO Box 213
Annville, Ky 40402
606-364-3599

15-A: Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

Comments why I would like the lake at Sturgeon Creek.

16-A Citizens that live on Cartwright Rd has to haul water ten miles in order to have water.

16-B more natural water sources would supply the lake at this site which would come from Sturgeon Creek.

16-C can't rent property because of no water supply unless the water is hauled

16-D better access to lake because state Rd 30E would go to lake

Dorothy Allen
P.O. Box 101
Tanner KY, 40486

16-A: It was inferred that the commenter is pointing out the need for a better water supply for Jackson County citizens. Comment noted.

16-B: It was inferred that the commenter is stating that a reservoir at Sturgeon Creek would be larger and/or would have a larger drainage basin than a reservoir at War Fork and Steer Fork, which is correct. Comment noted.

16-C: Comment noted. See Section 3.2.12, Socioeconomics, of the DEIS for additional discussion on improved property rentals and utilities.

16-D: It was inferred that the commenter is noting the ease of access to a Sturgeon Creek reservoir that a State highway would provide, in contrast to smaller, winding back roads found around the War Fork and Steer Fork site. However, both Sturgeon Creek reservoir options (3.5 mgd or 8.5 mgd) would require the relocation of portions of KY 30. During relocation of KY 30, there may be increased traffic and subsequent delays due to construction. Potential new corridors for the relocated segment(s) of KY 30 are not currently available. Therefore, it is unknown at this time whether the newly relocated segment of KY 30 would allow for direct access to a Sturgeon Creek reservoir.

Comments on Jackson County Lake Project Draft EIS

Responses

Comments:

As a resident + landowner in Jackson County, I have seen our county grow & make many changes in the last 10 years. Our current water supply cannot keep us going as we are today. We cannot have population growth or industrial growth until we do something about our water & lake must be our next priority. I realize there are streams and forest land that will have to be sacrificed to make the lake, but without water we, our children & grandchildren cannot survive. This should be more important than any issues that need to be resolved.

Louise Corah

17-A: Section 1.2.1, Water Supply, of this FEIS discusses the historical, current, and projected water needs of Jackson County. Comment noted.

17-B: Comment noted.

17-C: The Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA at 40 CFR 1500.1 (b) state that "...environmental information is available to public officials and citizens before decisions are made and before actions are taken." Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

*Mr. Mark S. Plank
USDA Rural Utilities Service
Eng. & Env. Staff
1400 Independence Avenue
Mail Stop 1571
Washington, D.C. 20250*



*May 27, 2000
re: Jackson County
Lake Project*

Mr. Plank,

Thank You for sending me the Draft Environmental Impact Statement and for the opportunity to respond. After reading the Draft EIS and Appendices I believe that the best solution is for the larger (8.5 mgd) Sturgeon Creek Lake for several reasons, if the people of Jackson County decide so.

The location of the Sturgeon Creek Lake will provide a corridor for wildlife between the Redbird Ranger District and the London Ranger District, if the area around the lake is managed for wildlife. This could encourage an exchange route of populations of wildlife between the headwaters of the War Fork and Island Creek.

The Sturgeon Creek location will cover less habitat that is suitable for T & E species than the War Fork - Steers creek site, while offering a greater opportunity for recreation without threatening the War Fork's Turkey Foot Rec. Area fishing and swimming.

18-A: Comment noted.

18-B: If the proposed reservoir were constructed at the Sturgeon Creek, 8.5 mgd project site, it would likely have neither a significant negative nor positive effect on wildlife movement. As a predominantly rural, agricultural area at present, the Sturgeon Creek valley does not contain the unbroken forest habitat consistent with the needs of native, forest-dependent wildlife. On the other hand, the proposed 300-foot buffer zone around the lake, if allowed to revert to forestland, could provide additional forest habitat of some value, although it would still be largely bordered by cleared agricultural lands to the outside and the aquatic habitat of the lake to the inside.

18-C: As presented in Section 3.2.4, Biological Resources, of the DEIS, three Federally-listed endangered species potentially occur at all three proposed project sites, not just at the War Fork and Steer Fork project site.

18-D: It was inferred that the commenter is noting the increased number of recreational facilities that would be constructed around the larger Sturgeon Creek reservoir (8.5 mgd). Section 2.4.1.3, Facility Construction, of the DEIS provides details on these recreational facilities. The commenter is correct in noting that a reservoir on Sturgeon Creek would prevent any potential threat to Turkey Foot Campground during construction or life of the dam.

18-A

18-B

18-C

18-D

Comments on Jackson County Lake Project Draft EIS

Responses

<p>18-E</p> <p><i>Since several of the communities in the area expressed a desire for water, the Sturgeon creek location offers a greater flexibility for water supply.</i></p>	<p>18-E: As noted in Section 2.4.1.4, Facility Operation, of the DEIS, the Sturgeon Creek, 8.5 mgd reservoir would serve as a water supply not only for Jackson County, but also potentially as a long-term regional supply for surrounding counties. Comment noted.</p>
<p>18-F</p> <p><i>The concerns for the archaeological sites is especially intriguing, since without the plan for the project, the cultural evidence may not have been brought to light and only fully explored if the Lake project is on the Sturgeon Creek. The inundation of archaeological sites won't destroy them, unless the sites are located at the water line of the normal pool level, just cover them.</i></p>	<p>18-F: Comment noted. It is normal procedure for any Federally-funded or licensed project to take historic properties, such as archaeological sites, into account in the planning process. This usually involves an inventory of the area of potential effect, evaluation of any sites found, and consideration of any impacts to them. Archaeological sites can be inundated safely without destroying the information they contain if they are not at a level that could be affected by erosion. It can be argued that inundation is a form of protection because the sites would not be subject to looting or other destructive activities.</p>
<p>18-G</p> <p><i>Since the project is partially funded by an E2+ Economic Development Grant, then the option that allows for the greatest economic improvement in the ^{the} region should be the logical choice. The 8.5 mgd Sturgeon Creek Project will offer more opportunity for recreational development than the 3.5 mgd War Fork plan, thus offering a better chance for development in the region. Maybe even more benefits will fall to the region if the construction of the dam is to utilize materials from suitable local suppliers ^{not} (gravel, sand etc.)</i></p>	<p>18-G: Comment noted. Economic impacts of the project at each of the proposed sites are discussed in Section 3.2.12, Socioeconomics, of the DEIS. Proposed recreational development around the reservoir is discussed in Section 2.4.1.3, Facility Construction, of the DEIS.</p>
<p>18-H</p> <p><i>(Two birds etc.) Thank you again. Sincerely, Mark E. Conley Lexington, Ky.</i></p>	<p>18-H: Although gravel for the project would most likely be obtained from the Indian Creek gravel pit located southwest of McKee in Jackson County, certain other materials for construction, as well as certain specialized construction personnel, may still need to be obtained from out-of-County sources.</p>

Comments on Jackson County Lake Project Draft EIS

Responses

19-A: It was inferred that the commenter is pointing out the need for a better water supply for Jackson County. Comment noted.

19-B: Comment noted.

Comments:

19-A

As a land owner and a life long resident of Jackson County I have seen many changes in the past 10 years. Our current water supply cannot keep up with our needs. As a result County growth and industry will suffer until we get a new water supply. I realize that we will have to sacrifice some of our forest lands for the proposed lake, but I feel that our residents are more important than we will lose if we build this lake.

19-B

The proposed site on the War-Fork-Star Fork area will have a positive impact on our community without water we are doomed.

Dannell Conley
Jackson Co. Parks & Recreation

Comments on Jackson County Lake Project Draft EIS

Responses

To: Mark Plank@WW@REA
 From: "Jackson County CenterNet" <jackson@centernetwork.net>
 Cc:
 Subject: Proposed Lake Site for Jackson County Kentucky
 Attachment: attach1, Headers.822
 Date: 7/10/00 7:42 PM

I recently attended your June 27th meeting that was held at the middle school in Jackson County regarding the proposed lake.

- 20-A | I would just like to say that I think having the lake at the Warfork location is the most logical solution.
- 20-B | I understand that people do not want to give up their homes and it is my understanding that two landowners are at you are going to have to deal with at this location. That is much better than having to deal with over 50!
- 20-C | I live in the Warfork area. In fact, I drive thru Turkey Foot Park every morning to get to work. I know that it will be disadvantage temporarily, but the advantages are far greater.

I am also a resident in Jackson County who is not provided with city water. I have a well. Last year during the drought my neighbors were without water. While this year is not much better. In order to do laundry my next door neighbor must fill her washing machine and then let it sit until the well fills back up before she can finally wash her clothes. It is most definitely an inconvenience to have to depend on the water from a well. You never know from or day to the next if you will have enough for just the basics.
- 20-D | I would also like to say that I am not a native Jackson Countian. I moved to this County because I love it. I would not want to see something destructive happen to Turkey Foot Park. The way I see it is in the end they will have a much better park!
- 20-E | This lake is not just for recreational purposes...it is a necessity!
- 20-F | I would just like to state once again that I am for the Warfork lake.

Jennifer Eitel
 P.O. Box 49
 McKee, KY 40447
 (606)287-0624

- 20-A: Comment noted.
- 20-B: There are currently no households living on the War Fork and Steer Fork project site that would require relocation if the site is chosen as the final project location.
- 20-C: It was inferred that the commenter is noting the transportation-related disadvantages during construction of the dam and reservoir at the War Fork and Steer Fork project site. As discussed in Section 3.2.9, Transportation, of the DEIS, during construction of the proposed dam at the War Fork and Steer Fork site, there would be a relatively small increase in traffic volume around the project site, which would temporarily slow traffic. However, this would not be a significant impact.
- 20-D: As discussed in Section 3.2.6, Recreation, of the DEIS, Turkey Foot Campground would be heavily impacted during construction of the dam and reservoir at the War Fork and Steer Fork project site. The swimming area might not be useable during this time, and fishing would be limited due to water quality issues. Turkey Foot Campground could also be impacted over the lifetime of the dam and reservoir due to changes in water quality and flows. However, new recreation facilities would be constructed around, and other recreational opportunities would be supplied by, the proposed reservoir. See Section 3.2.6 of the DEIS for more detailed information.
- 20-E: As stated in Section 2.0, Alternatives Including the Proposed Action, of the DEIS, the primary purpose of the Jackson County Lake Project is to meet the projected water need described in Section 1.2.1, Water Supply, of this FEIS. The secondary, but not causal, purpose of the project is to meet the desire for additional recreation opportunities.
- 20-F: Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

Comments:

21-A

21-B

21-C

21-D

21-E

21-F

I am against the lake project because you all think its more important to save what you all call indanger species than saving homes of people that's lived here all their lives. Furthermore I don't think its right to serve some of the people in Jackson and not all.

We live on Grand Lick and the water is within 1/2 mile both ways and they want more water to us, I call that discrimination. We are just important as the rest of the people in Jackson Co.

I can't even use my well water because it stays muddy all the time and I have to buy my drinking water and I don't have the money to buy it all the time.

We attend the water meeting all the time and all we get is the run around, and a bunch of lies they tell us one thing and do another.

I can't believe none of them when they say we are the next on the list and then they hook up somebody else instead of us. And getting a lake will make us have to pay more taxes and I think we pay enough taxes as it is.

21-A: The Federal ESA prohibits the harming of any species listed by the USFWS as being either threatened or endangered. Harming such species includes not only directly injuring or killing them, but also disrupting the habitat on which they depend. Comment noted.

21-B: Comment noted.

21-C: Comment noted.

21-D: It was inferred that the commenter is noting the unreliability of well water in Jackson County and the need for a better, safer water supply for the residents of Jackson County. Comment noted.

21-E: The Jackson County Lake Project is a very complex and evolving project. Comment noted.

21-F: Comment noted. Impacts on Jackson County's tax base are discussed in Section 3.2.12, Socioeconomics, of the DEIS. Additional information on the impacts of the proposed action on taxes within the County is presented in Section 3.2.12, Socioeconomics, of this FEIS.

Return Address

Ruth Krimer
Star Rt, Box 28C
Sand Gap, Ky. 40481

Comments on Jackson County Lake Project Draft EIS

Responses

Comments:

Edward C. Hodges
 275 Kp. Hwy 587
 McKee, KY. 40447
 606-287-7786

I support the development and construction of a freshwater impoundment for water supply and recreation at the War Fork /Steer Fork site for the following reasons:

22-A

- 1.) Little or no displacement of or acquisition of private individuals or property!
- 2.) minimal loss of "prime farmland" as compared to the Sturgeon creek site.
- 3.) Enhancement of recreational opportunities in the D. Bacon National Forest.
- 4.) Little or no impact to archaeological sites or threatened and endangered species.
- 5.) desperate need for adequate water supply for future growth and economic development of the county.

22-B

- 22-A: These issues are discussed throughout Section 3.0, Environmental Analysis, of the DEIS. Comment noted.
- 22-B: Revised projected water needs for Jackson County are presented in Section 1.2.1, Water Supply, of this FEIS. Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

23-A

Comments:

I think the lake should go in Laurel Fork but if we don't have enough political pull to get it in Laurel Fork, then it has to be in steel for

Return Address

Ray Mathis
401 Old County Rd.
Cannonville Ky 40402

23-A: Laurel Fork was investigated in the *Jackson County Lake Project Alternatives Analysis* as a potential location for the proposed reservoir. This site was eliminated from further consideration due to the presence of a Federally-listed endangered species, the Cumberland Bean Pearly Mussel (*Villosa trabalis*), within the proposed project area. The portions of Laurel Fork that were investigated were also designated by the State of Kentucky as ORWs. Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

Comments:

My opinions

- 24-A | • We will Devl. 150 AC or more by 2035
- 24-B | • Warfork is the lowest impact best site 114 AC
- 24-C | • The lake is not too large.
- 24-D | • 3.5 MGD may allow sales but will at least allow growth.
- 24-E | • Recreation is needed
- 24-F | • Fishing is compatible with water for drinking.
- 24-G | • The Cave system should be researched
- 24-G | • Forest Service land is already owned by the people of Jackson County and all Americans

- 24-A: It was inferred from the comment that some companies and contractors in Jackson County may need additional water supplies. Comment noted. See additional discussion in Section 3.2.12, Socioeconomics, of the DEIS.
- 24-B: Comments noted.
- 24-C: Potential growth from increased water supplies is investigated in Section 3.2.12, Socioeconomics, of the DEIS. Comment noted.
- 24-D: A discussion on recreation needs is given in Section 1.2.2, Recreation Needs, of the DEIS. Comment noted.
- 24-E: Fishing is permitted in drinking water sources, as long as national drinking water standards are maintained. Comment noted.
- 24-F: A visual reconnaissance was performed at the proposed War Fork and Steer Fork site due to concerns of reported limestone outcrops in the vicinity of the site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.
- 24-G: Comment noted.

Comments on Jackson County Lake Project Draft EIS

Responses

1 Again, we'd like for you to limit your
2 comments to a few minutes. But, again, the crowd is
3 not so large. We are not going to be sticky about it
4 exactly three (3) minutes or anything like that. But
5 we do want to make sure everyone has a chance who wants
6 to offer a comment. Anything else from this side of
7 the room? Okay.

8 With that, then, the first person who
9 indicated they did want to offer a comment is Eric
10 Engell. Sir, do you want to come on down here so
11 everyone else can hear? It also helps our court
12 reporter. This is a way to make sure that everybody's
13 comments are captured. Okay.

14 MR. ENGELL: Of the sites that
15 are selected, the War Fork and Steer Fork seems a whole
16 lot better because nobody gets to be put out, right now
17 the Sturgeon one, they say an average of fifty (50)
18 families. And you've mentioned like three (3) people
19 per household. I think you'll find out in this county
20 there's more like four (4) or five (5) per household.
21 It's a lot more. And most of the areas have been in
22 the family for years. It would be very difficult to
23 give them up.

24 Plus, I notice in reading through it that
25 really you've got enough to build the dam, but it does

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25-A: The commenter is correct in stating that, if the War Fork and Steer Fork site were chosen as the final project location, no households would need to be relocated from the project area. Comment noted.

25-B: Household size for Jackson County was derived from 1990 Census of Population and Housing data provided by the U.S. Bureau of the Census for Jackson County. The average number of persons per household for Jackson County is 2.71. This figure was rounded to 3 for the DEIS.

25-C: New cost estimates were prepared for each of the dam and reservoir sites, and for a pipeline from Wood Creek Lake and Lock 14 of the Kentucky River, evaluated in the DEIS and are included in the FEIS in Section 2.0. Line item cost estimates are included in the FEIS as Appendix Q. These new estimates include land acquisition costs for the buffer zone and potential maximum flood area of the reservoir.

1 not include any money for a buffer zone or the flood
2 zone area. And that would either be taken by eminent
3 domain or we can nicely donate to the county, or we can
4 have easement restrictions, which means we couldn't do
25-D anything with that land, except pay taxes on it at a
6 higher rate because it was built on an agricultural
7 property. Then some recreational property in our tax
8 base on this land. We can do nothing but upkeep, and
9 it would be a whole lot more.

10 I don't think too many people in this county
11 can afford to pay higher taxes on property that they
12 can't produce any income off of.

13 MR. MANGI: Thank you, sir. Mr.
14 Al Fritsch.

15 MR. FRITSCH: I have three (3)
16 questions. Can people hear me? I have three (3)
17 questions that I'd like to raise about this very
18 voluminous report. The first is, establishing the need
19 for the water. Now, that I would agree with,
25-E especially after an article in the Lexington Herald
21 last week about this county in need for water. But
22 what is so important right now, after we've had a
23 1930-type of drought last year and perhaps we may have
24 another today, and this week, and this month, why don't
25-F we make that connection with the, with the Woods Creek.

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PAGE 30

25-D: In general, property owners who have easements placed on all or a portion of their property within the buffer zone around the lake would still have to pay taxes on the assessed value of their property, even though uses to which they can put areas within the easement zone would be restricted (Rose, 2000b). Details on changes in taxation as a result of the proposed action are discussed in Section 3.2.12, Socioeconomics, of this FEIS.

25-E: It was inferred that commenter is noting a need for additional water supplies in Jackson County. Comment noted.

25-F: The Wood Creek Lake pipeline alternative is discussed and evaluated in this FEIS in Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis.

1 Now, the dismissal of that was done almost
2 in a cavalier manner within the United States. And
3 that was because of the cost, 11.8 million dollars as
4 opposed to the War Fork, and the other value. And, of
5 course, Sturgeon Creek would be half that amount. But
6 it's impossible. And, yet, there was no items in the
7 entire report that this institution center telling us
8 exactly where that money is to be spent, except when we
9 noted which creek runs within miles, maybe feet of some
10 of them, of the net worth of setup here in Jackson
11 County already. But how much more, really, what gives
12 that more?

13 And if we have the problem of water being
14 25-G down, why wait four (4) or five (5) years or more that
15 would take to build a dam and put it in? And let's get
16 some water for our people. Let's add another thing.

17 The conservation that was presented here, in all
18 fairness, was fairly well done. But it left out the
19 25-H point that there are a number of conservation areas
20 that are not very much, such as building cisterns, and
21 building dry county toilets. We've done that in the
22 past week in Harlan County.

23 These things we could get the same amount of
24 money that could come to everybody in any home, \$2000
25 enough to build dry toilets in the dry part of the

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PAGE 31

25-G: It was inferred that commenter is noting that construction of the dam and reservoir would take a long time and that water is needed immediately for Jackson County residents. Additional water supplies are currently being obtained through a pipeline from Laurel Fork to the JCWA Treatment Plant. For more information about this pipeline, refer to Section 1.2.1, Water Supply, of this FEIS. Although this is not a long-term solution, this additional water should provide for Jackson County during the construction of the dam and reservoir.

25-H: Installing cisterns and/or dry composting toilets in every household in Jackson County may decrease residential consumption rates, and thus, projected residential water demand, but it would do nothing for commercial or industrial consumption rates and water demands. See Section 1.2.1, Water Supply, of this FEIS.

1 westland. And the representative here said that thirty
2 (30) percent of the people don't have any. And this
3 gets the money down to the people. Not only that, it's
25-I | built by local people, not the dam building --
4
5 (Inaudible).

6 The second question: Is it necessary to run
25-J | a lake or have larger shortages be met by smaller
7
8 community units? Now, that applies to what we call the
9 larger lakes have disastrous effects in some conditions
10 of the world. But medium size lakes, we're talking
11 about the War Fork, for instance, may not have those
12 same, but they could have out -- (Inaudible) -- farm
13 and dry toilets are at very low costs per unit. And
14 that's an environmental way of looking at that. That
15 alternative should be treated here because of the state
16 of Kentucky. We are a dry population and only seven
17 (7) states are. So why don't we consider that.

25-K | The third is to establish new living. Will
18 | that increase the employment? Now, that question is
19 | asked because that's what the economic department is
20 | all about is to get employment for the people. Now,
21 | what I believe because I think it was said earlier
22 | about points which related to recreation. And that is
23 | that that report under staff facilities says that even
24 | that that report under staff facilities says that even
25 | under high growth conditions for some fishing boats,

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PAGE 32

25-I: It was inferred that the commenter is noting local distribution of construction funds if cisterns and/or dry composting toilets were built throughout Jackson County. Although construction funds may partially be distributed locally, certain construction materials and specialized construction personnel may still need to be obtained from out-of-County sources.

25-J: Management of multiple, smaller impoundments for water quality would prove to be much more difficult and costly than management of a single reservoir. Administration of water from multiple smaller impoundments would still require adequate treatment, and would probably need to be transported to the JCWA Treatment Plant. In addition, a larger number of smaller water impoundments would not necessarily be more compatible with the environment than a single, larger impoundment. The edge effects of multiple impoundments would fragment more natural habitat, which is not a desirable outcome ecologically. In addition, financial costs of a larger number of smaller impoundments would be much higher, given permitting issues, site acquisition and preparation, and maintenance.

16-K: Section 3.2.12, Socioeconomics, of the DEIS discusses the impacts of the proposed dam and reservoir on employment and on the local and regional economy. Please refer to that section for more information.

1 water skiing and canoeing will remain a surplus in this
2 area of the country, of the state, until the year 2020.

3 Now, it already says that the United States, why are
25-L you telling us about your related issues here and this
5 and that is needed for our people?

6 If we need swimming, which is only one (1)
7 of four (4) that could have been related, we need
25-M swimming. Why that's only a small swimming pool for
9 the hundreds, thousands of dollars, rather than
10 millions of dollars. Now, that doesn't say that the
11 number one recreation in this state, in this country,
12 is sight-seeing. Forty something percent of them do
13 their recreation in sight-seeing. This county is
14 beautiful and incredible. We should try to keep up
15 because if we go down the river and clean that up, that
16 area would be a part of almost every state of the
17 community, the hemlocks, the hill sides, the crystal
18 flowing on the river.

19 Let's make this a tourist area that would be
20 for sight-seeing or in any other areas that we can;
21 picnicking, hiking, trailing use. This is the area
22 that we can use that money a different way, and we
23 don't have to build a lake to do it. Thank you.

24 MR. MANGI: Thank you, sir.
25 Jerry Waddle.

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PAGE 33

25-L: The DEIS in Section 1.2.2, Recreation Needs, and in Appendix F, *Final Recreational Needs Analysis for the Proposed Jackson County Lake Project*, states that facilities for fishing, boating, water skiing, and canoeing will remain in surplus to the year 2020, but that there will be increasing needs for additional camping, hiking, picnicking, and swimming facilities in the future.

25-M: Swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes. Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A reservoir not only presents a more natural setting for swimming and water contact, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, the construction of swimming pools around the County would require different funding than that designated for the reservoir, and would most likely come from local sources. In any case, the primary purpose of the proposed reservoir is for water supply; any swimming that may occur at the reservoir would be an incidental benefit of the facility.

1 MR. WADDLE: Well, I'm standing
2 at this thing, easy money, as they call it from my
3 understanding.

4 THE REPORTER: I can't hear you,
5 sir.

6 MR. MANGI: Sir, can you speak
7 up just a little bit?

8 THE REPORTER: I can't.

9 MR. WADDLE: Okay. If I was
10 standing there, right in the very rural areas, the
11 ability to sewer and the solid waste disposing in clean
12 water. Now, what that's supposed to do, for the way I
13 read the report, is to create a situation for the
14 people who can't afford the parts of the area. They
15 make money be it tourist, fishing, et cetera. So I
16 think that the idea of creating a tourist recreation
17 area in a pristine area at already.

18 Public drinking water supply, besides
19 mentioned in the report, it's a gamble. Of course,
20 25-N it's a gamble. We gamble that the dirty oil in boats
21 that will hit that water are not blue-green. We gamble
22 that off-road vehicles will not damage the lake and
23 surrounding areas to the point that salvation fills in
24 25-O it before its time. So my recommendation is that we
run a pipeline for right now. And I consider this a

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DENISE Y. VASQUEZ, RPR

PAGE 34

25-N: As mentioned in Section 2.4.1.4, Facility Operation, of the DEIS, restrictions may be placed on the use of motor-operated boats on the reservoir, should a reservoir be chosen as the action to be taken. The proposed 300-foot buffer zone surrounding the reservoir would help to prevent degradation of water quality due to the use of off-road vehicles. In addition, primary and secondary contact recreation, such as swimming and fishing, respectively, would likely have no appreciable effect on water treatment costs because treatment plants already treat for any contaminants that these types of recreation may introduce (Lange, 2000b).

25-O: Additional water supplies are currently being obtained through a pipeline from Laurel Fork to the JCWA Treatment Plant. Please refer to Section 1.2.1, Water Supply, of this FEIS for more information on this pipeline. In addition, pumped storage alternatives have been reassessed based on the revised water needs projections for Jackson and surrounding counties, which are presented in Section 1.2.1, Water Supply, of this FEIS. For more information on these alternatives, please refer to Sections 2.0, Alternatives Including the Proposed Action, and 3.0, Environmental Analysis, of this FEIS.

1 mediocre situation of why don't we fill the dam and
2 mess up a very pristine area, hurt the wild life.
3 That's just to get a hole just a swimming hole and
4 bring tourist sites.

5 But off the record. Okay? Maybe I better
6 make sure it's on the record. Okay? If tourists come
7 to this area, and all they see is a bunch of trash,
8 they're going to take pictures of it. Yes, sir.
9 They're going to go back to Ohio and Tennessee,
10 Michigan, where ever they come from. We're going to
11 show them we have a trashy area called Jackson County,
12 Rockcastle County. Let's don't give them a chance to
13 do that.

14 So we should, let's clean up our act folks.
15 And when we clean up our act, then let's do something
16 significant to bring our tourists. Let's keep our eyes
17 open, bring it up. If there's a fine line between
18 people for water alternatives, it's more resources.
19 And then we can decide if we want to pick them up.
20 Thank you.

21 MR. MANGI: Thank you, sir. I
22 didn't receive any other cards that indicated folks
23 wanted to speak. If I overlooked any, I apologize to
24 you. Is there anyone else that has a comment that
25 wants to come on up? Don't all come up at once, folks.

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 35

1 Sir, please. Take your time, sir. If you'd be so kind
2 to introduce yourself for our court reporter.

3 MR. GRIMES: My name is Ray
4 Grimes.

5 MR. MANGI: Thank you, sir.

6 MR. GRIMES: What I want to talk
7 about is the lake project that they're talking about.

25-P
8 The way I see it, it's a waste of money. People can't
9 get water in some creek out back. They need water to
10 have cooking. We've been after them for water for
11 eight (8) year. We get -- finally found you some
12 water, so what. You're on Phase 4. Then they get
13 back, you're Phase 5, same thing. We're on Phase 5
14 right now. Next time we'll be on Phase 6. The way I
15 see it, it's wasting money. Thank you.

16 MR. MANGI: Thank you, sir.
17 Anyone else with a comment, concern? Anyone else?
18 Well, if there's no other comments -- ma'am, please.

19 THE REPORTER: Your name, please,
20 ma'am?

21 MS. ENGELL: Robin Engell. My
22 husband's already spoken. I just wanted to reiterate
23 the feeling. We've been in Jackson County for about a
24 year. We come from Texas where water is very valuable.
25 It's very hard to get. I looked around, I see water

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 36

25-P: Comment noted.

1 every where. We will be, just so y'all know where I'm
2 coming from as a person, we will defeat -- (Inaudible)
3 -- this place. In fact the lake goes in and destroy.
4 If it goes in at a higher level, they will include it
5 in the money that they have given in their report.
6 It's called a buyout, our place. If it goes in the
7 lower level, we will be, our house will have to be
8 within a buffer or flood zone. Okay.

9 That amount would be underneath from us or
10 force us off our property has not been included in any
11 amount. They have listed three (3) amounts. I don't
12 know why they haven't bothered to list how much it
13 would take. Now, I know of one family, their farm has
14 been in the family since 1800s. There is also
15 historical significance in this. I know in our place,
16 it was built in the 1800s. We have agreed of making
17 that, rebuilding that cabin, making that area something
18 maybe people would want to come, you know, to be part
19 of the new area road.

20 So I feel there has to be another
21 alternative. I think there's hard emotional issues
22 here that people do not understand, unless they are a
23 part of that. I know that my grand -- for my farm has
24 only been there for a year or a year and a half, you
25 know. But I know there's people that been there, been

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 37

25-Q: New cost estimates were prepared for each of the dam and reservoir sites and are included in this FEIS in Section 2.4.1.1, Site Preparation. Line item cost estimates are included in this FEIS as Appendix Q. These new estimates include land acquisition costs for the buffer zone and potential maximum flood area of the reservoir.

25-P: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

1 raised on that farm. They put miles of fences, the
2 labor, they raise their kids, you know. I just want to
3 put that emotional issue, you know.

4 It's not just these families. These
5 families are real people with real kids, with real
6 history, with real sweat put in on this land over the
7 years. You don't just pick up and start over again.
8 You lose all of that. You lose your Ma and Pa's place.
9 I just wanted to speak on that and let you all know.

10 MR. MANGI: Thank you, ma'am.
11 Anyone else, comments, concerns? Anyone else? We are
12 in no hurry. All right. Then, if there are no other
13 comments or concerns -- all of us appreciate you taking
14 time out of your day to come and listen to us and to
15 express your thoughts. Okay.

Comments on Jackson County Lake Project Draft EIS

Responses

1 We do want to give everyone an opportunity to offer
2 your comments and express your concerns, provide your
3 input. Out of consideration, we appreciate if you
4 limit your comments to a reasonable amount of time.
5 But given the number of people here, we can be certain
6 that we'll have plenty of time for everybody to be
7 heard.

8 What I'm going to do first is call on -- I
9 only got two (2) cards indicating that folks wanted to
10 speak. Don't worry about that. Let me call these
11 couple of folks first, and then we'll just open it up
12 to anybody else. If you're motivated to make a
13 comment, come on down. Use this microphone if you
14 want. Use this microphone if you want. Whatever
15 you're comfortable with. Okay. I'll call first on
16 Russell Bange from Tyner. Sir?

17 THE REPORTER: Wait. Wait. Wait.
18 I've got to make sure I hear you, sir.

19 MR. BANGE: No comments.

20 MR. MANGI: All right. Okay.

21 Carol Moore. You can take that microphone if you want.

22 MS. MOORE: I don't use
23 microphones.

24 MR. MANGI: Okay.

25 THE REPORTER: Ma'am, just speak

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1 loud enough so that I can hear you.
2 MS. MOORE: I didn't expect to
3 speak before the group, but I have been following the
4 development of this lake for a number of years. And I
5 have experience in the environmental segment. That's
6 part of my background. It has been for years. I used
7 to live in this county. I do know something about it,
8 too. And I just want you all to know that the
9 population growth factor that they have in here is
10 partly based on an agreement that has never been
11 finalized and nothing in writing with Berea, from
12 Madison County, Clay County, Manchester, that's not too
13 far away. There's others in there if you take the time
14 to look what they're saying as far as that.

26-A

15 And if you add those numbers up, their water
16 use is sixty (62) percent of what is projected for the
17 growth. Now, if that doesn't happen, I don't know what
18 happens to y'all's water bill and whether you foot the
19 bill because the development didn't happen. On top of
20 that, they're saying that in the year 2000, by the year
21 2005, that there will be eighty-five (85) acres of
22 development. Now, I don't know where those eighty-five
23 (85) acres are coming from. They want to protect the
24 farmland. I think they should. But I don't know where
25 the eighty-five (85) acres are if they can develop on.

26-C

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 28

26-A: Berea College's projected water needs were removed from the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS.

26-B: Due to the removal of Berea College's water needs from the revised water needs analysis, regional water needs are now calculated to be 42 percent of Jackson County's projected water needs. Please refer to Section 1.2.1.3, Regional Demands, of this FEIS for more information. Projected impacts on water rates have been estimated for this FEIS, and are discussed in Section 3.2.12, Socioeconomics, of this FEIS.

26-C: As noted in Section 1.2.1.2.1, Projected Water Consumption Rates, of the DEIS, industrial development was projected by the Jackson County-McKee Industrial Development Authority. Please refer to that section of the DEIS for more information.

1 And another sixty-five (65) acres up to like the year
2 2035. And that's another sixty-five (65) acres I'm not
3 sure where that's coming from.

4 But you have the farmland in the county,
5 plus family farms, some of it, and what you got is
6 great, and you don't want to lose what you got. I
7 don't know where they put, are going to put that
8 development. If I'm making people mad here, I don't
9 want to do that. But I'm trying to point out some of
10 the flaws in their study. On top of that, the
11 watersheds that they knew or I would hope that they did
12 their homework were not good watersheds in the first
13 place because they do involve endangered species, and I
14 don't know how much money was spent on those
15 watersheds. And the money could be spent somewhere
16 else better.

17 They also indicate the population growth
18 data. They say they account for projected fifteen (15)
19 percent water loss. That's not even really allowed
20 amount of water, and I don't think even the water leak
21 has been checked on their system. If it hasn't, that
22 needs to be done. I didn't see that that was addressed
23 here. There's some laws in the books, and I didn't
24 have time to look all that up. There's some bills in
25 the register, you've got to do a water loss check

26-D

26-E

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 29

26-D: Multiple studies were conducted to select alternative sites for the proposed dam and reservoir prior to the onset of the EIS. During these preliminary studies, alternative sites were screened for factors such as eligibility for or designation as a Federal Wild and Scenic River or a Kentucky ORW, presence of threatened, endangered, or otherwise protected species in the project area, and projected yield of a reservoir at that site. Alternatives were then eliminated from further consideration based on the results of the screenings.

26-E: An explanation for the use of the 15 percent line loss factor in the water needs analysis is presented in Section 1.2.1.4, Projected Water Needs, of this FEIS.

1 before you can get all that type of funding. You know,
26-E prove that you've done your best to provide people with
safe drinking water at a reasonable cost. That is some
4 of the comments I saw in the projections. All this is
5 based on this projected need of all this water.

6 So they've got, you know, smaller -- they
7 may have done their water checks, the water leak check,
8 and granted that this, they've got too small of a lake.
9 Do they know it's too small. They're saying at least
10 three (3), four (4), five (5) million gallons per day
11 is the need. And they're basing it on these items.
12 And that's on Page 109 in that assessment. And, also,
13 Page 113 shows the difference for their, to my
14 knowledge, no written agreement. And they didn't -- it
15 did not indicate any agreement. And I do know some of
16 those water systems are looking for other sources
17 already. Besides, you know, they haven't shown
18 commitment at all. And someone's got to pay for that
19 big lake and all the development that's requested with
20 a drinking water system.

21 Recreational need. Again, they said on Page
22 118 that there's already surplus of all the
23 recreational uses in this area, surplus, except for
24 picnic areas and swimming. Well, there's other
26-F alternative ways to provide swimming. They can add

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 30

26-F: Swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes. Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A reservoir not only presents a more natural setting for swimming and water contact, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, the construction of swimming pools around the County would require different funding than that designated for the reservoir, and would most likely come from local sources. The expansion of Turkey Foot Campground would increase the amount of picnicking facilities in Jackson County. However, doing so would require different and additional funding than that designated for the reservoir. In any case, the primary purpose of the proposed reservoir is for water supply; any swimming that may occur at the reservoir would be an incidental benefit of the facility.

1 more public, public pools in the area, if there's much
26-F of a shortage in Jackson County. And picnic areas, I
3 think, they've got a nice one at Turkey Foot. Maybe
4 they can expand on that one the way it is. And that
5 dam is awful close to the Turkey Foot recreation area
6 or it seems to be based on the map. I didn't see any
26-G indication how that affects that huge use of recreation
7 when only there. I mean, someone can walk up in that
8 drainage because it's so close. It's right there.

9
10 As far as fishing, fishing is not a
11 compatible use with the drinking water stream system.
12 If you try to manage that fishing, it's not compatible
26-H because it causes problems trying to treat that water,
13 which will jack up the cost of treating that water.
14 And the costs are passed onto Jackson County water
15 users, the residents. Another point is that I don't
16 think they addressed it. It's more recent innovative
17 transfer because that's water from Kentucky River, and
18 eventually will wind up in parts of Rockcastle. I know
26-I that's a problem as far as environmental, the
19 Environmental Protection Agency. And that issue is
20 coming up, and we will have to address it.

21
22
23 There's another thing. What about the karst
26-J topography in the caves, the limestone that's in there?
24 I don't know how far down below this lake will be. How
25

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 31

26-G: For a discussion of the impacts of the War Fork and Steer Fork dam and reservoir on Turkey Foot Campground and on recreation at that Campground, please refer to Section 3.2.6 of the DEIS.

26-H: Primary and secondary contact recreation, such as swimming and fishing, respectively, would likely have no appreciable effect on water treatment costs because treatment plants already treat for any contaminants that these types of recreation may introduce anyway. In terms of primary contact recreation, it could be arguable that water arriving at the treatment plant might have higher quality because greater care would be taken to protect the water quality to which primary contact recreation users are exposed (Lange, 2000b). Projected impacts on water rates have been estimated for this FEIS, and are discussed in Section 3.2.12, Socioeconomics, of this FEIS.

26-I: Comment noted. The EPA has been involved in the EIS process for this project, and will be involved in the Section 404 process as well.

26-J: A visual reconnaissance was performed at the proposed War Fork and Steer Fork site due to concerns of reported limestone outcrops in the vicinity of the site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.

1 much water loss does that entail? Has that been
2 included in what they projected the amount of data to
26-J be produced by this lake. The dam won't fill up.
4 These are unresolved problems of the dam, and -- and
5 what I think is the limestone or something. I don't
6 know all the details. I just wanted to know is part of
7 that in your study here today?

8 One final comment. When you said using best
9 management practices during construction. Folks, this
10 is a large construction area, a minimum of 116 acres it
11 takes of Forest Service land. That means no strong big
12 dams and buildings. You know, -- (Inaudible) -- I
26-K don't know what other BMP they come up with, but that
14 hardly sounds sufficient on that larger scale.

15 Now, I'll tell you, I'm against this also
16 because it's taking Forest Service property. And they
17 call it 301 because we don't have much of a Forest
26-L Service -- I mean, our National Forest left. And they
18 keep chopping away and chopping away. We didn't have
19 -- is there a representative here from the Forest
20 Service? Well, you know, they -- you all should have
21 lots of information on recreational land uses.

22 And I would have thought you would have
23 gotten up and, you know, talked about the importance
24 of, you know, shown the other sides of importance that
25

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 32

26-K: It was inferred that the commenter is stating that implementation of Kentucky's BMPs for construction activities would not be effective due to the large size of the dam and reservoir project area. This is incorrect. BMPs are used for all types of construction activities to minimize nonpoint source pollution. BMPs are selected depending on the conditions present at the construction site, including the size of the affected area.

26-L: Comment noted. A representative from the USFS was present at the public meeting. The project proponents and study team have worked closely with the USFS through the NEPA process to obtain accurate and current information.

1 this area has a tremendous increase of recreational use
2 as a forest not as a lake. I hope I haven't caused any
3 hard feelings.

4 MR. MANGI: Thank you, ma'am.
5 To the best of my knowledge, we don't have anyone else
6 who said that they signed up. So I'm going to open it
7 up to anybody who wants to make a comment. Sir, come
8 on down.

9 THE REPORTER: Your name, sir?

10 MR. WILLIAMS: Howard Williams.
11 I'm not a public speaker. My brother is. He is a
12 preacher. I heard your comments. I wasn't talking
13 about nobody about doing the research. But I stand
14 here today as a grandparent and parent in this county.
15 And I transferred in this county; U.K. run me out. But
16 without water, I can't hold the fort for these three
17 (3) tykes. Now, I'm not here to tell you what I think
18 about the bill. I'm here to tell you we need water.
19 And in a nation that's had a man on the moon and things
20 on Mars, and we as a people standing here tonight, as
26-M we sit here and stand here, are in harm's way of
22 running out of water in the year 2000. But the most
23 basic element of life is water. How can we not go this
24 way?

25 Now, I realize there's emotional issues.

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 33

26-M: Comment noted.

1 Right over there near, out there, a school up there
2 being built. I used to do that kind of work. It's a
3 nice place down there. But down there, what you
4 preach, you don't replace any family, no utilities, no
5 roads, no nothing. The good Lord, in my opinion, we're
6 running out of forest to use. As -- but it's water.

7 Now, the lady said that the Forest Service,
8 the Forest Service needs that water out, water down
9 there because if it was down there, they would bring
10 heavy buckets and scoop up that water whether it's
11 water at Turkey Foot or wherever and put those fires
26-N out and save our trees. Them are our trees. So I
13 think it would enhance the Forest Service. It would
14 enhance our property as American citizens, as owners of
15 the Forest Service to have that lake right down there.
16 Because the way -- I've been in this county a long
17 time. You can see a helicopter from right in that area
18 most of the day in the forest just a few short minutes.
19 Where else would you put it?

20 We are in desperate need. I know, because I
21 have worked, built. And without this water this town,
22 this county, and our families -- I mean, you all brag
23 on your grandchildren, if you'd like -- we will fail,
24 and be over. Thank you.

25 MR. MANGI: Thank you, sir. Let

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 34

26-N: Comment noted.

1 me give everybody else a chance. Okay. And then we'll
2 be happy to get back to you. We should have time. But
3 anyone else want to make any comment, express any
4 concern, provide any input? Okay. Anyone else? Sir?

5 THE REPORTER: Can I have your
6 name, please?

7 MR. HODGES: Edward Hodges.

8 Well, I have plans for you to --.

9 THE REPORTER: I can't hear him.

10 MR. MANGI: Come back from the
11 mike.

12 MR. HODGES: We do need a lake.

13 We do need the water. I do have questions. But from

14 reviewing the lake and the water, and from reviewing

15 the Environmental Impact Statement, it looks like War

16 Fork is the best site for it. And it just makes me mad

17 when somebody doesn't even live here. I work in

18 Lexington, so I get tired of reading the papers about

19 how, you know, Eastern Kentucky gets a bad name on

20 things. I just want to say that we need the lake. We

21 need it where it's at.

22 MR. MANGI: Thank you, sir.

23 Anyone else? Ma'am, go ahead, if you want.

24 MS. MOORE: I did live in

25 Jackson County. I guess there's a lot of people that's

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DENISE Y. VASQUEZ, RPR

PAGE 35

26-O: Comment noted. The need for water is not equivalent to the need for a lake.

26-P: Comment noted. Additional alternatives are evaluated in this FEIS for meeting the projected water needs of Jackson and surrounding counties. Please refer to Section 2.0, Alternatives Including the Proposed Action, and 3.0 Environmental Analysis, of this FEIS.

1 left and come back and, you know, left to come back.
2 And maybe a part of your family's gone, and part of my
3 husband's family's gone, you know. But that -- I guess
4 I didn't make my point clear that I'm not against that
5 we need more water. I just feel the study is flawed in
6 the sense that the alternatives they chose, some of
7 them were alternatives they should have chosen in the
8 first place, and perhaps should have looked at some
26-Q other alternatives in place of those.

10 They should go back and see if there aren't
11 some others. I guess they can't go back because it's
12 taken this long now, and see if there isn't some other
13 choices out there. But that would be awful to tie it
14 up that long, besides leak checks and doing some
15 improvements of the existing system. And even looking
16 at other alternatives as one connecting with Madison
26-R County even -- I mean, Jackson County, Madison County
18 as well. And they've got the river to draw from.

19 I'm not saying it's good or bad. It just
20 hasn't been looked at. I didn't say I don't think they
21 should get water. I'm from the rural area. I was
22 raised in a rural area. But that was not what I meant
23 at all.

24 MR. MANGI: Thank you, ma'am.
25 Sir? Go ahead.

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 36

26-Q: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

26-R: South Madison Water Association currently purchases all of their water from Berea College Water Utility Department (Williams, 2000c). As noted in Section 1.2.1.3, Regional Demands, of the DEIS, Berea College is in need for an additional water supply. In addition, the costs of construction and operation of a pipeline from Berea College to the JCWA Treatment Plant would be very large, given the distance between the two water utilities and pumping costs over Big Hill.

1 THE REPORTER: Your name, sir?
2 MR. RODEN: Scott Roden. I
3 wouldn't want anyone to think that your comments today
4 were something that would make --.
5 THE REPORTER: I can't hear.
6 MR. RODEN: The people who turn
7 -- they would make anyone upset with you because they
8 have the right to be. But it does -- I took some notes
9 on your comments. And I want to go down those if I
10 could and maybe cast a shadow on some thoughts in other
11 people's minds here, and those people who would see
12 this report later in the minutes to this meeting.
13 One comment I will address as I can. The
14 projected development of eighty-five (85) acres. It's
15 almost assured that it will be eighty-five (85) acres
16 developed in Jackson County in the first time frame.
17 And by 2035, it's almost assured that sixty-five (65)
18 more acres will be developed. I can tell you that
19 because I own two (2) development companies, land
20 development companies. I use basic construction
21 methods to develop those; provided just last week,
22 Kentucky Mountain Housing started two (2) homes here in
23 the city on one of the pieces of property.
24 So I got 208 acres that I plan, personally
25 developed. And I know there's other people that want

26-S

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26-S: Comment noted. As noted in Section 1.2.1.2.1, Projected Water Consumption Rates, of the DEIS, industrial development was projected by the Jackson County-McKee Industrial Development Authority. Please refer to that section of the DEIS for more information.

1 to be provided home sites, building sites. The banks
2 are planning on making loans. USDA through RSDT are
3 planning on loaning the money to people. We have over
4 twenty (20) percent of our population living in
5 substandard housing. And with this substandard
6 housing, the only way to correct it is to put in better
7 homes and develop this land that we're talking about.

8 Picking watersheds, no one in the beginning
9 of this process -- I'm on the EZ Board, on the
10 Construction Committee, and worked with the Lake
11 Committee -- no one wanted to eliminate any watershed
12 26-T from this study. So we picked, as I understand, as
13 many possibilities we could from Day 1. There may have
14 been some that were not seen, but we have been wanting
15 this since 1985 or before. I'm sure people were aware
16 of the need for water before that. So picking
17 watersheds, it did cost money, but it did not rule out
18 any opportunities for us to have the best site when we
19 got to the end of the process. So we spent some money
20 to make a good decision.

21 Your comment about fifteen (15) percent
22 water loss. I don't know how much water is lost. You
23 know I could address that. I'm sure that the Water
24 26-U Board is working diligently with the equipment that
25 they have and means they have to eliminate water loss

26-T: The commenter is correct in that multiple studies were conducted to select and screen alternative sites for the proposed dam and reservoir prior to the onset of the EIS. Alternatives were then eliminated from further consideration based on the results of the screenings.

26-U: Please refer to the response for comment 26-E above.

1 every day. I've never seen water bubbling up on the
2 ground, and come back, and somebody doing something
3 about it. There may be leaks because every system I'm
4 sure has. But I do think they are taking every effort
5 that they can to minimize that.

6 Comment of a lake this large. We're talking
7 about 114 acres. If I were to give 200 acres,
8 developed and sold as I planned to, I'll give this
9 county 114 acres of my land to put a lake in. It's --
10 I won't get as emotional as Tyler, but we've all got a
11 big stake in this. And I moved here. I've lived here
12 for twenty-one (21) years now. So three and a half
13 (3 1/2) million gallons of water per day, that may be
14 excessive, but if it lasts fifty (50) years instead of
15 thirty-five (35) or twenty-five (25), and we need to do
16 another one later, we'll do another one.

17 There's more bottled water sold than I ever
18 expected to see any time in my life. And those who
19 waved the environmental flag may be the only ones that
20 can afford to buy bottled water. But I guarantee you
21 next year, after everyone has to buy bottled water,
22 whether they can afford it or not, legislation, the
23 legislation, those who do the legislating, will be
24 changed. We will have a late start in a very short
25 time because no one that votes is going to sit here and

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DENISE Y. VASQUEZ, RPR

PAGE 39

1 let the population be without water while everybody has
2 enough money to be against it, and everybody buys water
3 from the fridge house. It's not going to happen.

4 Your comments of no agreements with other
5 water facilities are absolutely correct. We do not
6 have our statements today. All that's in here,
7 indicates. But with the long-term need, you know, that
26-V they're trying to address. They're working on their

9 own. They're not citizens from their community to go
10 in with us until they see if we can come together as a
11 community to do this. So if you don't have anything to
12 sell, you will not be one government consider to solve
13 the problem. We're not wanting to sell this water.

14 It's our resource. It falls on our land. And that's
15 that's why we don't have to sell it. We have over five
26-W (5) million dollars to develop this resource, which is
17 more than half. The funding is given to us back as our
18 tax dollars and invest in our community.

19 A surplus recreation. I don't know if you
20 go by, if you spend time in this county like many of us
21 do, the biggest surplus in recreation we have is
22 children sitting in parking lots after dark with not a
23 lot to do. You know, there's not other sources of
24 recreation other than hiking, which is very open to the
25 community; back riding, horseback riding, things like

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PAGE 40

26-V: Regionalization of water supply is a well-established trend (Caldwell, 1999), and one generally supported by government policy. Please refer to Section 1.2.1.3, Regional Demands, of this FEIS for more information on regional water needs and supporting regulations.

26-W: Comment noted. A list of proposed funding sources for the Jackson County Lake Project is provided in Section 1.1, The Environmental Impact Statement, of the DEIS.

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that. There are not public pools. And most of the pools that are put in rural communities are not sustainable unless the government decides that they are, and the taxation goes up to cover that. They grow, of course. You look at them all over the community centers. The -- put in the type of swimming pools that will cost extra recreation. They do not fund them, taxpayers for them, anyway.

Fishing not being compatible with drinking water. I'm from Burnside, Kentucky. I have to tell you that Lake Cumberland generates a tremendous amount of drinking water from Burnside and all the way to Jamestown. So I know that we probably, with 114-acre lake, we will probably have to limit the excess amount of tire boats, keep the oils and things that length of size, and do a lot of fishing out with a new size of boats -- (Inaudible).

And as far as transfer water from Kentucky River watershed over to the Cumberland watershed. The folks down in Lexington were not interested in pursuing this with us on a twenty-nine (29)-billion-dollar project. And if the water comes into our homes, and then ends up running out in the Cumberland River, and does not impact the overflow of the Cumberland Lake, everybody would be happy except the people who didn't

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 41

26-X: Swimming pools, both small private pools and larger public ones, meet a different kind of recreational need than do lakes.

Swimming pools are typically used for swimming as sport or physical fitness, playing in the water, and sunbathing. A reservoir not only presents a more natural setting for swimming and water contact, but is also available to other kinds of recreation, including boating, canoeing, fishing from shore and/or boat, wildlife observation, hiking, and sight-seeing. In addition, the commenter is correct in that the construction of swimming pools around the County would require different funding than that designated for the reservoir, and would most likely come from local sources.

26-Y: Primary and secondary contact recreation, such as swimming and fishing, respectively, would likely have no appreciable effect on water treatment costs because treatment plants already treat for any contaminants that these types of recreation may introduce (Lange, 2000b). The commenter is correct in that, as stated in Section 2.4.1.4, Facility Operation, of the DEIS, restrictions may be placed on the use of motor-operated boats on the reservoir.

1 want to help us put water in the South Fork anyway.
2 So, you know, what I don't see that that's any viable
3 argument to take it out of the Kentucky River. We are
4 the head of the Kentucky River. And part of it is our
5 water diverted into a lake holding for our use.
6 Lexington can buy bottled water when it gets time.

7 The lake system. There's water in the creek
8 right now and most dry -- even dry times, there's some
9 water in it. I don't think it's all going to go away
10 on us. We certainly looked at enough to be able to
11 build a dam there and hold water in this. That can be
26-Z the most devastating thing to happen is to build a dam,
13 and then water run out, hole behind it, or I'm sure
14 that's been reconsideration. That's a concern of mine
15 I will have to say.

16 Best practice, best practicing basin. There
17 are many areas away from here. Most of them flat
18 ground as we do. This gentleman here in the front does
19 excavation. 114 acres excavation is something that we
20 don't see very often, but there's hardly any roads
26-AA built or any, you know, the third lane on I-75 has done
22 more, you know, best practice management practice and
23 more, way more than 114 acres that have been disturbed
24 to get two (2) more lanes down I-75. So they spend
25 money in Kentucky to get to one end to the other. So

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PAGE 42

26-Z: It was inferred that the commenter is concerned about the geology of the War Fork and Steer Fork project site. Due to such concerns, a visual reconnaissance was performed at the proposed War Fork and Steer Fork site. The geologic report from the visual reconnaissance is provided in the FEIS as Appendix P, and is discussed in Section 3.2.1, Geology/Soils, of this FEIS.

26-AA: It was inferred that the commenter is noting that Kentucky BMPs for construction activities can be effective for large construction sites. Comment noted. Refer to the response to comment 26-K above for more information.

1 that won't hold water either.
2 And taking the Forest Service land. We're
3 not taking Forest Service land. They are giving it
4 back to us. It was bought at pennies on the dollar or
5 given in many cases or traded to the forest service.

6 It was bought. Any of it that was bought, private
7 landowners, was bought, were federal tax dollars that
8 we all paid. And they're going to give us 114 acres,
9 and let us be -- join with us towards this land. And
26-BB we need to do this. And, now, it's time when we got
11 the money, to give the money, and the will of the
12 people in absolute need. This is the time to do this.

13 And, certainly, no one is upset at all about
14 your comments or any other comments that were related
15 to the wildlife, the loss of scenic opportunities.
16 We're in pretty rough shortage here in Jackson County.
17 If you go walking, you better take something to drink
18 and something to eat, if you walk as far as you can
19 walk 'till you run out of scenic places to see. And a
20 whole lot of those places, where this lake would be
21 built, would never have been seen by ninety (90)
22 percent of the population if they couldn't see it by a
23 boat. If I pick the lake and the location, I would

26-CC probably pick Laurel Fork. It has endangered species
25 and a whole lot more problems about dealing with. But

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PAGE 43

26-BB: The National Forest land for the reservoir at War Fork and Steer Fork, if this alternative is chosen as the action to be taken, would either be exchanged with an area of land in Jackson County equal in value to the land needed for the project, or would be allowed to be used for the project by issuance of an SUP by the USFS. Please refer to Section 3.2.8.2.1 of the DEIS and Section 2.4.1.5, Connected Actions, of this FEIS for more information about the land exchange and SUP.

26-CC: Laurel Fork was investigated in the *Jackson County Lake Project Alternatives Analysis*, Appendix H of the DEIS, as a potential location for the proposed reservoir. This site was eliminated from further consideration due to the presence of a Federally-listed endangered species, the Cumberland Bean Pearly Mussel (*Villosa trabalis*), within the proposed project area. The portions of Laurel Fork that were investigated were also designated by the State of Kentucky as ORWs. Comment noted.

26-DD

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I'm in full support of wherever it is the lake can go,
if it's War Fork, and it seems that it is, but will the
people join us that that's where it needs to be?

3

4

MR. MANGI: Thank you, sir.

5

Anyone else? Sir?

6

THE REPORTER: Your name, sir?

7

MR. FLANNERY: Charles Flannery.

8

I'm speaking on behalf of --.

9

MR. MANGI: Can you use the

10

microphone, please?

11

MR. FLANNERY: I live on the

12

Kentucky River --.

13

THE REPORTER: I can't hear.

14

MR. MANGI: Can you use the

15

microphone, sir?

16

THE REPORTER: I can't hear.

17

MR. FLANNERY: Every inch of it.

18

And I have been there all my life. And I'm of people

19

that came before the Civil War and live there. I hate

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to see it covered up. And, to me, it would be

26-EE

22

devastating to that whole community. And that doing

23

away with the roads will be taken, and families out, to

24

be moved out. And, to me, that is not right. There

25

are other places that lake can be built as well, and

nobody bothered. And I would be very pleased if the

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PAGE 44

26-DD: Comment noted.

26-EE: Comment noted.

26-FF

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lake can be built somewhere else or Laurel Fork, which is close to the Lake of Tyner. And, so, I am just speaking on behalf of myself. I'm just one in that community. And there is, would be my estimate for the forty (40) to fifty (50) families would be concerned and be affected by a lake on Sturgeon Creek. And I would like for this time, the people that is here that, that's against a lake being on Sturgeon Creek, if you would at this time stand up.

(Audience members stand up.)

Thank you. That's all I have to say.

MR. MANGI: Anyone else?

MS. ENGELL: Robin Engell. I

just didn't know how many people got a chance to read this report. I don't know how many people realize the amounts that they are giving of cost of a lake include only the parts that will be held. Those costs do not include the flood zone or the buffer zone. I want to read something to you from Page 221.

The first word "if." "If the funds are available, the land up to maximum flood level and the land within the buffer zone or falls within a restricted site, otherwise, this land would be acquired by voluntary easements, restricted sites. The current owners of this land to donate or accept restrictions on

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PAGE 45

26-FF: Laurel Fork was investigated in the *Jackson County Lake Project Alternatives Analysis*, Appendix H of the DEIS, as a potential location for the proposed reservoir. See the response to comment 26-CC above.

26-GG: New cost estimates were prepared for each of the dam and reservoir sites and are included in this FEIS in Section 2.4.1.1, Site Preparation. Line item cost estimates are included in this FEIS as Appendix Q. These new estimates include land acquisition costs for the buffer zone and potential maximum flood area of the reservoir.

1 the use of their land. The land would be purchased or
2 acquired by eminent domain.

3 Eminent domain on the same page. A power or
4 right by the government agency usually at state or
5 local level, the use for legislative will be granted
6 power to condemn a piece of property for public use.
7 Easement. The right of a person or government agency
8 or public entity to use or restrict private, public or
9 private land owned by another for specific purpose."

10 Okay. I know there's my home. In the fifty
11 (50) homes that they talk about, fourteen (14) of those
12 homes would be under water. With the large lake,
13 thirty-six (36) of those other homes. How many with a
14 smaller lake? About thirty (30) with a smaller lake on
15 the Sturgeon would be in what you call flood zone, or
16 the buffer zone. The buffer zone serves a purpose.
17 This purpose is keeping cattle within 300 feet away
18 from the lake surface, keeping them off of that area.
19 It keeps septic tanks, buildings, our homes, our farms,
20 from being used.

21
22
23
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25
26-HH

21 If we accept easement on our property. They
22 restrict that area. We cannot use that property.
23 You'll still pay taxes. I'm almost sure there's
24 multiple taxes because it's not at all being used.
25 It's not lakefront property. I just want to know how

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PAGE 46

26-HH: In general, property owners who have easements placed on all or a portion of their property within the buffer zone around the lake would still have to pay taxes on the assessed value of their property, even though uses to which they can put areas within the easement zone would be restricted (Rose, 2000b). Details on changes in taxation as a result of the proposed action are discussed in Section 3.2.12, Socioeconomics, of this FEIS.

1 many people realize that. I don't know where the
2 money's going to come from. Like this man. I know
3 there's a lot of emotional issues. I know like the
4 Flannery's. Their boy, you know, who is looking to
5 have the farm. The farm has been in the family since
6 1800. I know it's our dream. We moved here. We're
7 new in the community, and I don't want to set standards
8 and stand in the way of the community having water.

26-II

9 Although, I'm saying I would really like to
10 see better second and third alternatives. Something
11 that's not going to hurt the people, real people.
12 People who live in this community. I mean, they're not
13 just a number on a piece of paper. And I just would
14 really like to see some other alternatives looked into
15 better.

16 I know somebody else had said it's too
17 costly for not drinking enough water. Like I said,
18 this year all costs have not been included, only costs
19 to put in the dam, buy the land that will be under
20 water, and to operate that land through the years. I
21 just wanted to let people know this. Thank you.

22 MR. MANGI: Thank you, ma'am.
23 Anyone else? Sir?

24 MR. EDY: Most people know me
25 here. We moved back here from Ohio seventeen (17) year

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PAGE 47

26-II: Based on the revised water needs analysis presented in Section 1.2.1, Water Supply, of this FEIS, and on comments received on the DEIS from agencies and the public, alternatives were reassessed as to whether they met the revised water needs for Jackson and surrounding counties. Additional alternatives were evaluated in this FEIS and either eliminated from further study or considered to be reasonable for further analysis. Please refer to Section 2.0, Alternatives Including the Proposed Action, of this FEIS for a more detailed discussion. Those alternatives considered to be reasonable for further study are evaluated in Section 3.0, Environmental Analysis, of this FEIS.

1 ago. We didn't have no water. We was lucky to even
2 have it.

3 THE REPORTER: I can't hear.

4 MR. EDY: We was lucky a lot
5 to have enough to, from the creek and haul water many a
6 times. Have gone to one lake, and that much water. I
7 was eighteen (18) year old before we got any water.

8 This other place, Steer Fork. Our children, walk right
26-JJ over there, hunting, fish, and wait at the creek from
10 my house, all the way down, and what else is it good
11 for, but a lake. That's all I have to say.

12 MR. MANGI: Thank you, sir.

13 Anyone else? Any other comments, inputs, questions,
14 concerns?

15 THE REPORTER: Your name, sir?

16 MR. COX: Eugene Cox. I don't
17 have a lot to say. But what I would like to say is
18 that I feel that most of us are here tonight because we
19 are concerned about the welfare of the people in
20 Jackson County. And I feel like that we have a great

26-KK need for water. And, well, we just need a lake real
22 bad, I think. And I can understand a lot of people
23 their land is involved in this, and I would feel like
24 that if I had to give up if I did have it. But for
25 some of us, we like to look for other alternatives or

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PAGE 48

26-JJ: Comment noted.

26-KK: Comment noted. The need for water is not equivalent to the
need for a lake.

1 other sides to go to.

2 I feel like some of these things like the

3 Wild and Scenic River and the endangered species and

26-LL 4 things, I don't feel like this is important. It is

5 important, but not as important as the people giving up

6 their land. But we are in great need of a lake. I

7 feel we ought to come together, people ought to come

8 together and develop somewhere soon. Because everyone

9 in the county knows how low this lake is, and how much

10 we do need water. And it would be great if we all get

11 together and try to work this out and settle on a site

26-MM 12 somewhere to get a lake. I feel like we need it.

13 We're in great need. The quicker we can get it, the

14 better off we all are.

15 And I know that we all would like to have

16 industry in the county. And I encourage them to come

26-NN 17 out. But what can they do here if they don't have

18 water. They can't come in and can't setup. But

19 there's a need for the individuals of this county I

20 think is way greater than y'all's. I was going through

21 that book a little bit, not much time, but I saw what

22 seemed like quite a few of our creeks have mussels down

23 there. We do have them, and the majority of the creeks

24 out there are in danger, you know.

25 I'm not throwing any slurs at this point or

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PAGE 49

26-LL: The Federal ESA prohibits the harming of any species listed by the USFWS as being either threatened or endangered. Harming such species includes not only directly injuring or killing them, but also disrupting the habitat on which they depend. The Wild and Scenic Rivers Act established a method to provide Federal protection for some of the country's remaining free-flowing rivers. This protection is achieved through management plans, with determine the amounts and types of public use that the river segment can sustain without impacting the values for which it was designated. Comment noted.

26-MM: It was inferred that the commenter is nothing the immediate need for additional water supplies in Jackson County. Comment noted.

26-NN: Section 3.2.12, Socioeconomics, of the DEIS notes that the primary inhibitor to growth of industry in Jackson County is the provision of utilities such as water. Comment noted.

26-OO

1 anything directed I say at any individual. Everybody
2 has their own job to do. But I feel like that the
3 people, the need of the people should be our first
4 priority over recreation, scenic routes, or endangered
5 species or whatever. The individual person -- I mean,
6 as people, that I feel like they're much more important
7 than birds, fish, bats and mussels or whatever else.
8 I'm not directing this at the Environmental Protection
9 Agency because they're just carrying out the laws that
10 the lawmakers made.

11 And I just -- to sum it all up in one, I
12 just feel like the most important thing we can do now
13 is try to get together and get a lake built as soon as
14 possible.

15 MR. MANGI: Thank you, sir.
16 Anyone else? Any other comments, inputs, concerns?
17 I'm going to turn it back to Mark Plank in just a
18 moment. One other thing I want to point out. The
19 handout -- I hope you all got a copy of the handout.
20 If you haven't had a chance to get it, you can get it
21 at the end of this. You will find a comment form at
22 the end of it. It looks like the back cover, but
23 actually you can tear it apart. I love to do that.
24 Take the back cover off. It's a comment form. It's
25 got the address back here. Write your comments, fold

CENTRAL KENTUCKY COURT REPORTING, INC.
DENISE Y. VASQUEZ, RPR

PAGE 50

26-OO: Please refer to the response for comment 26-LL above.
Comment noted.