

**Appendix H – Responses to the Shoals Environmental Alliance and Center for Biological Diversity Comments**

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## Shoals Environmental Alliance's Comments

Generally, the Shoals Environmental Alliance (SEA) pointed out what it believed to be numerous inaccuracies in the draft EA, questioned the need for the project, and took issue with the use of certain words, phrases, and conclusions, including the basis for certain effects determinations. SEA also asserted that the range of alternatives considered did not include all reasonable alternatives.

The following are comments from SEA and a corresponding TVA response. The comments are directly quoted from SEA's letter, although the full quotation may not be provided in each instance. Comments in their entirety can be read in Appendix G.

- 1. Comments:** The first statement on page 1 is obviously inaccurate. The project has a commercial component. The DEA's next paragraph explains that "The dry-stack storage building and associated parking would be a commercial operation made available to the general public via rental agreements. The boat launching ramp and courtesy dock would be shared by the commercial operation and the residents of the development." The dry-stack storage building would not be usable without the requested dredging, so this dredging must also be included on the list of this project's commercial components . . . . I believe this document is deficient and not up to the standards required by the Council on Environmental Quality and NEPA.

**Response:** In the draft EA, TVA and the Corps acknowledged the commercial component of the proposal early in the second paragraph. Normally, removal of reservoir-bottom material when no obstruction is created is not regulated under Section 26a of the *TVA Act*. However, because the dredge is to occur on TVA submerged property and is a part of the proposal involving other structures requiring approval, the dredge also needs to be approved and effects of its construction assessed. Whether the dredge is considered a part of the commercial component of the proposal is not relevant to the EA's assessment of impacts stemming therefrom. See response to Comment No. 13 below regarding commercial development.

- 2. Comments:** On page 4 of the DEA we find this: "Portions of TVA land along the shoreline of the proposed project area show vegetative and hydrological characteristics of wetlands. . . . Saying that these areas exhibit "characteristics of wetlands" or "represent wetlands habitat" seems to me to be an effort to downplay the importance of these areas. And exactly where are these "portions of TVA land," these wetlands? I couldn't find a wetlands map anywhere in the DEA or its appendices.

**Response:** Executive Order 11990 calls upon federal agencies to minimize the effects of their actions on wetlands. As indicated in this final EA, the area in question includes TVA-owned land below elevation 556.3 mean sea level (msl) including the reservoir bottom. Normal summer pool is elevation 556 msl and, therefore, only a band or wetland fringe is typically exposed. Because of the small change in ground elevation nearer the head of the cove, a relatively broad band of wetland vegetation (0.53 acre) occurs on this part of the TVA property. TVA and the Corps recognize in the EA that the project area contains wetlands, and the applicant will reduce the length of the shoreline stabilization (riprap) and size of the dredge area and reposition the boardwalk to minimize wetland impacts of the proposal. Thus, less than 0.01 acre of wetlands would be affected [EA, pages 16, 17, 34, and 35]. No map of this small wetland area was prepared.

3. **Comments:** Also on page 4 of the DEA we read this: “There was no boating activity within the cove on this date of the Corps’ inspection.” Why is this statement included in the DEA? Is this supposed to be meaningful? Are we to infer from reading this that no one uses the cove for fishing or other recreation? Is this statement meant to counterbalance the comments to TVA & USACE from people who fish in this cove and know it to be a spawning area?

**Response:** This comment represents a field observation on a particular day with no inference intended. TVA and the Corps recognize the value of Wheeler Reservoir to its users for a variety of recreation and other purposes, including fishing [EA, pages 6, 20, and 22].

4. **Comments:** On page 6 of the DEA we read this: “By letter dated October 6, 2008, the Alabama Department of Conservation and Natural Resources stated that no net loss of stream or wetland functions should occur as a result of the project.” But this statement is contradicted on page 11 of the DEA, where we find this: “The proposed boat ramp and a portion of the associated dredge are located in the wetland area.” How can there be “no net loss of wetland functions” when a boat ramp and a portion of the dredge are located there?

**Response:** As an important project reviewing agency, TVA and the Corps continue to appreciate the Alabama Department of Conservation and Natural Resources’ involvement in these projects, and the paragraph on page 6 of the DEA was summarizing that agency’s conclusions. The EA recognizes, however, that there are wetlands in the project area. Considering modification to the applicant’s original proposal, effects of its implementation on wetlands will be minimized. See response to Comment No. 2 above and special aquatic sites in Section 3.3 [EA, pages 8 and 16].

5. **Comments:** On page 10 of the DEA we read: “BMPs and proper management of storm water runoff are expected to minimize impacts to reservoir water quality and would not worsen conditions in the impaired downstream part of Elk River.” The DEA uses the word “expected” a lot. The use of such phrases seems to be an attempt at justifying this development without actually guaranteeing it will have no adverse impacts; we are merely told TVA and USACE “expect” no impacts.

**Response:** The goal of the impacts assessment is to describe what would happen to the resources that are assessed under the proposed action and alternatives, i.e., to predict whether or the degree to which the resource would be negatively or positively affected. Predictions of effects are based on information and data, knowledge (supported by credentials), judgment, and experience and are often predicated upon circumstances that reflect a certain level of uncertainty. Use of the word “expect” or “expectation” is an appropriate way of conveying an anticipated and inherent level of uncertainty.

6. **Comments:** Next we read: “If good and proper operating, safety, and housekeeping procedures are followed at the dock, adverse water quality impacts related to spillage of petroleum substances would be minor.” . . . In contrast to the DEA’s “expectations” of no significant impact on water quality, consider the following from the Environmental Protection Agency (from SOURCES OF WATER POLLUTION FROM MARINAS AND RECREATIONAL BOATING). “The construction of a marina can create a condition of reduced water circulation. In an area already protected from wave action, such as a cove or

inlet, marinas can potentially introduce pollutants to an area with limited natural circulation or water exchange. Over time, reduced circulation and increased pollutant generation can increase pollutant concentrations in the water column, sediments, and aquatic organisms . . .

See comments in their entirety in Appendix G.

**Response:** As mentioned above, the goal of the impacts assessment is to describe what would happen to the resources that are assessed under the proposed action and alternatives. As a part of expert predictions of effects, reasonable assumptions must sometimes be made in framing the issue. Major or catastrophic events are not often likely to occur and the status quo is the usual occurrence. Behaviors consistent with observance of recognized rules and regulations or normally expected routine activities and frequencies of occurrence are considered reasonable. Effects of the community dock on boating and fish are evaluated in habitat for fish and other aquatic organisms and water-related recreation in Sections 3.3 and 3.4, respectively, in the final EA [pages 20 and 22]. This community docking facility would have few characteristics and facilities commonly associated with a commercial marina.

7. **Comments:** On page 11, discussing shore erosion and accretion patterns, the DEA states: “There are many variables that contribute to shore erosion. However, there are no measurable means of determining erosion as a direct result of recreational boating in the area that might originate from boat launching and associated mooring at the proposed community docks.” A little later it states: “As previously mentioned, the use of BMPs during construction would minimize sediment in runoff from the site and into Elk River.” . . . You (supposedly) can’t measure erosion at a marina site, yet it is possible to predict that BMP’s would minimize runoff!

(See comments in their entirety in Appendix G including description of other related water quality problems created from boat traffic.)

**Response:** It is impossible to distinguish and measure erosion caused by boats that might originate from a particular site or access point. Boats from other access points would surely motor by this and other sites, creating wave wash all the way. Shoreline erosion and resultant sedimentation can also be caused by other factors such as waves generated by wind, weathering, gravity, soil type and position, or rainfall runoff. Although soil along this reach of the Elk River is highly erodible, where it occurs, much of the shoreline at the site where the proposed activities would occur and in the vicinity on the river is rock or rocky. Best management practices (BMPs) would be effectively implemented on the shore and other parts of the applicant’s property subject to vegetation removal or soil disturbance to prevent and control water-caused erosion, e.g., gully, sheet, etc., and potential resultant sedimentation. The proposed stabilization with riprap would help prevent shoreline erosion in the affected area in the future. Such rock, rocky, or stabilized shoreline is not prone to typical soil erosion. See substrate [EA, page 13], shore erosion and accretion patterns [EA, page 15] and habitat for fish and other aquatic organisms [EA, page 20]. See reference to the impaired reach of Elk River in response to Comment No. 8 below.

8. **Comments:** Since the Elk River is on the 303(d) list (meaning it is impaired), in part due to elevated nutrient levels, it is likely the bottom of the marina site’s slough is full of nitrogen and phosphorous. Boat traffic can destroy submerged aquatic vegetation which protects

shorelines from erosion and is an important resource for many aquatic species because it provides food and shelter.

(See comments in their entirety in Appendix G including a further description of concerns about effects on spawning areas, fish, and erosion.)

**Response:** The Elk River, 2 miles downstream of the project from Wheeler Reservoir to Anderson Creek, is on the state 303(d) list of impaired (i.e., not fully supporting its designated uses) waters due to pH and nutrients from pasture grazing and nonirrigated crop production. See water quality section [EA, page 14]. Also, see habitat for fish and other aquatic organisms [EA, page 20] and response to Comment No. 7 above.

9. **Comments:** Discussing impacts on the wetland areas of the slough, the DEA states “Consistent with TVA’s Shoreline Management Policy (TVA 1998), disturbance of TVA properties would occur only at the areas of reservoir access and shoreline alteration including the ramp, dredge, riprap, and boardwalk access. Access from the proposed boardwalk to the community dock and the access road to the ramp would be outside the wetland area and above elevation 556.3 msl. These activities would have no effect on this sensitive habitat type on the TVA property.” A few sentences later, we learn: “The proposed boat ramp and a portion of the associated dredge are located in the wetland area.” . . . How can there be “no effect on this sensitive habitat type” when the boat ramp and a portion of the dredge “are located in the wetland area? . . .

The DEA then states: “Construction of the ramp, in accordance with the modified plans (Appendix C), would have minimal direct and indirect effect on this wetland habitat area (less than 550 square feet or about 0.01 acre).” So, in the space of two paragraphs the DEA goes from stating there is “no effect on this sensitive habitat type” to saying that the ramp will have “minimal direct and indirect effect”. And what is the reasoning for this prediction of “minimal effect” on wetlands? It is implied that the size of the disturbance, “(less than 550 square feet or about 0.01 acre)”, is the reason. What about all the wave action, propeller damage, prop wash and repeated dredging over a 10-year period? It is likely that the effects on wetlands would be much more than minimal.

**Response:** The initial paragraph containing the no effect determination was intended specifically to address the access points leading to the shoreline facilities. These sites would be higher on the landscape and outside the wetland area. The applicant must present TVA with, among other things, a plat with a designated common lot to allow back-lying residents to access the shoreline facilities. See response to Comment No. 2 above. The dredge and the ramp, however, are located in the wetland area. Based on its implementation procedures for compliance with Executive Order 11990 (Protection of Wetlands), TVA has determined that effects on the dredge and ramp on wetlands would be minimized by implementation of the modified proposal. Please see special aquatic sites [EA, page 16].

10. **Comments:** Discussing endangered or threatened species, the DEA states: “In response to the JPN, by e-mail dated October 16, 2008, the USFWS stated that no significant adverse effects on fish and wildlife resources are expected to result from this project. Therefore, USFWS had no objections to the issuance of these permits.” But USFWS did not perform a survey of the site. Shouldn’t a survey be performed to ascertain what species live in the slough?

**Response:** TVA has no control over USFWS's decision to perform or not perform an independent survey of the site. However, in the course of preparation of the EA, TVA conducted desktop reviews of the TVA Natural Heritage database and then conducted field investigations to determine the presence of federally or state-listed terrestrial and aquatic plants and animals and their potential habitats at the site. The scope of these reviews and investigations included the affected shoreline, including the TVA land, and the upland area proposed for residential development. Furthermore, in its evaluation of potential effects on wildlife habitat, TVA reviewed the proposal as it relates to designated natural areas recorded to occur at or near the proposed project site and the potential for activities associated with the proposal to encourage establishment or spread of invasive species [see endangered and threatened species and wildlife habitat, EA, pages 17-20 and 22, respectively]. In addition, see response to Comment No. 7 below under the Center for Biological Diversity's Comments.

- 11. Comments:** Discussing habitat for fish and other aquatic organisms, the DEA states: "The proposed dredging would result in the immediate loss of the existing benthic communities within the affected 30,150 square-foot dredging footprint. Although recolonization is expected to occur in a short time, the composition of the new communities would be slightly different due to the increased water depths." This statement that "recolonization is expected to occur in a short time" seems to be ignoring the fact that the developer will be allowed to perform maintenance dredging, as needed, for a period of ten years from the date of the permit.

**Response:** Comment noted. See habitat for fish and other aquatic organisms [EA, page 20].

- 12. Comments:** Discussing wildlife habitat, the DEA states: "There is a potential for a slight reduction in overall population numbers within their new habitats. Because of the availability of similar suitable habitats in the area relative to the small amount of habitat proposed for development and because the species present are common and abundant in the area and the region, impacts on terrestrial wildlife are expected to be minor. While a small amount of waterfowl use area and suitable habitat associated with this site would also be affected, the proposed water use facilities would result in a minor and insignificant effect on ducks and geese that live or migrate through this area because of the small portion of waterbody affected relative to the size of Wheeler Reservoir." . . . My question is: When is the tipping point reached?

**Response:** Comment noted. See wildlife habitat [EA, page 22]. SEA does not define "tipping point," but based on the context of these comments, TVA interprets "tipping point" to mean a point in time when common terrestrial wildlife species become federally listed as endangered or threatened. The assessment of the cumulative impacts associated with a project helps, in part, to answer the question of when this "tipping point" may be reached. TVA conducted a cumulative impacts assessment in this EA and concludes that the cumulative impacts resulting from this project will be minor. In the reasonably foreseeable future, TVA does not expect the "tipping point" to be reached with respect to any plants or animal species because of the implementation of this proposal.

- 13. Comments:** The DEA states that: "Currently, a total of 13 public recreation areas and three commercial recreation areas provide boating accommodations in this area of the reservoir. The public recreation areas include 13 boat launching ramps with a combined total of 488 vehicle and trailer parking spaces. The commercial marina operations provide a total of 255

dry boat storage spaces and 324 wet slips.” It sounds like the commercial component of this development is not really needed. . . . With boat traffic will mean more pollution. Considering all of the public boat ramps already available, why must we have another one that will have a negative impact on a wetland and a spawning area?

**Response:** See water quality and water-related recreation sections [EA, pages 14 and 22, respectively]. The TVA-owned shoreline, below elevation 556.3 msl fronting the applicant’s proposed development, was not planned in the 1995 *Wheeler Reservoir Land Management Plan* because it was shoreline fronting former TVA land that was sold with rights of ingress and egress; as a result, it may be used in any way that is compatible with those rights, including for residential and/or commercial purposes. In other words, the applicant already has the necessary landrights to qualify the proposed shoreline facilities and alterations for consideration. The applicant assumes all the business risks of the success or failure of this proposal.

- 14. Comments:** Discussing how the proposed marina would affect boat traffic on Wheeler Reservoir, the DEA states: “Given the water surface area available, it appears that typical summer weekend and holiday weekend boating activity can be accommodated without exceeding generally accepted optimum recreational boating capacity thresholds (TVA 2009).” It appears to me that TVA is considering how the increased traffic from the marina will affect congestion of the Wheeler Reservoir as a whole. Is this valid? I would think that most people who kept their boat at this site would tend to boat more on the Elk River and Anderson Creek, rarely venturing all the way to the Wheeler Lake. Shouldn’t TVA have studied how increase boat traffic would affect the local area, rather than the Wheeler Reservoir as a whole?

**Response:** TVA considered the lower Elk River and lower Wheeler Reservoir, an area that includes a total of 25,516 surface acres of water at NSP elevation, in its evaluation of recreational boating density. This was determined to be a reasonable estimate of the distance (area) a boater may likely travel in a day on the reservoir if the river were accessed from this proposed River Front Development LLC ramp or community dock. Density of boats is directly related to the available surface acres and boats in use at any given time. Baseline estimates for numbers of boats in use were developed from known parking and access points scattered about this portion of the reservoir. Based upon the experience and expert judgment of TVA staff, the density seems fairly proportional as known parking spaces and access points seem evenly distributed along the Elk River and Wheeler Reservoir study area, and the boat density would not likely vary discernibly if the size of the study area were reduced.

- 15. Comments:** Discussing aesthetics, the DEA states: “Currently, there is only one pier and boathouse within the cove. Construction of the proposed facilities would result in a minor but permanent change and alter the visual character of the immediate shoreline for a short distance relative to the length of undisturbed shore.” . . . A large community dock, boardwalk, boat ramp, courtesy dock and a huge dry-stack storage building represent only a “minor change?”

**Response:** Comment noted. See aesthetics [EA, page 26].

- 16. Comments:** Discussing economics, the DEA states: “The proposed facility is not expected to have an adverse financial effect on other such area facilities.” . . . What is the basis of this prediction? Has TVA done a study or is this just another subjective, un-meaningful

statement of opinion? The DEA states: "Private property values could be affected by the success or failure of the applicant's proposed venture." I think it quite probable that the property on the other side of the slough from the proposed development will go down in value, regardless of the success or failure of the proposed development.

**Response:** TVA conducted an appropriate level of research and site-specific study to support its conclusions. Please see the aesthetics, economics, and cumulative and secondary impacts sections in the final EA [pages 26, 29, and 31].

**17. Comments:** Discussing cumulative and secondary impacts, the DEA states "...reasonably foreseeable future actions include: • Increased real estate value for the applicant's property and other properties within the area • Improved recreational boating due to additional moorage and storage facilities • Increased boating effects on crowding, navigation and safety, and water quality. On what basis is this prediction of increased real estate value for "other properties within the area" made? Properties adjacent to a busy marina would surely decrease in value. Who would prefer living next to a busy, noisy, crowded marina? People who live nearby will not agree with the prediction of "improved recreational boating." If local residents already think that this section of Elk River is too congested with boat traffic, they certainly won't appreciate the additional traffic produced by this development.

**Response:** Comments noted. See response to concerns expressed by some commenters about the commercial component of this proposed development at the bottom of page 11 of the EA. See responses to Comments Nos. 13 and 16 above.

**18. Comments:** I don't think that a wide enough range of alternatives was considered for this development. NEPA requires that all reasonable alternatives be considered and discussed in the EA, but only three alternatives were looked at. Considering how many commercial facilities and public boat ramps are available in this section of the reservoir, allowing only the community portion of this development to go forward would be a reasonable alternative. The DEA states that the applicant's proposed action with mitigation "would have the least adverse impacts of the options under consideration," but considering the resulting impact on wetlands and water quality from this alternative, how can this be true? The No Action alternative would obviously have less adverse impacts.

**Response:** TVA and the Corps believe that a reasonable range of alternatives was evaluated in this final EA. Because the applicant owns the back-lying land, has the necessary landrights to apply for approval, and presented his application and proposal for certain water use facilities described in the EA, TVA and the Corps, under their respective authorities, must review the project and decide if the actions should be approved or denied (see page 1 and Sections 1.2 and 1.3 of the final EA). As the commenter contends, the No Action Alternative represents the least impacting alternative assuming the private land above elevation 560 msl, where neither TVA nor the Corps has jurisdiction or federal control and responsibility, is not developed. See response to Comment No. 13 above.

**19. Comments:** Marinas create pollution in bodies of water. Water problems associated with marinas include decreased levels of dissolved oxygen and increased levels of metals and petroleum hydrocarbons. Pollutants get into the water through storm water runoff, discharges from boats, and spills of fuel or bilge water. Organic matter in sewage discharged from boats, trash tossed into the water or tossed on the ground, pet waste contained in storm water runoff, and fish waste tossed into the water consumes dissolved oxygen as it decomposes. Consumption of oxygen by decomposing organic matter leaves

less oxygen for fish and other aquatic organisms. Many metals are used in various components used at marinas and on boats and they can wash from parking lots, service roads, and launch ramps into surface waters with rainfall. According to the EPA, "High levels of zinc, chromium, and lead have been detected in the waters of some marinas. . . ." .

If this marina is built, it WILL have an adverse impact on the slough, the wetlands, and their flora and fauna. The commercial components of this development (including the boat ramp and dredging) will have the most deleterious effects and TVA and USACE should consider not allowing them to go forward.

**Response:** Comments noted. See water quality [EA, page 14] and responses to Comment Nos. 6, 7, 8, and 13 above.

## Center for Biological Diversity's Comments

For various reasons, the Center for Biological Diversity (Center or, as shown in some of their comments, CBD) indicated that it believed the draft EA is deficient and fails to meet minimum requirements of the NEPA and other laws. If the proposal is considered further, the Center further asserts that an environmental impact statement is required.

The following are comments from the Center and a corresponding TVA response. The comments are directly quoted from the Center's letter, although the full quotation may not be provided in each instance. Comments in their entirety can be read in Appendix G.

- 1. Comments:** We believe the draft EA is deficient in a number of respects and fails to meet even the minimal requirements of the National Environmental Policy Act, Endangered Species Act, U.S. Clean Water Act and other laws. We further believe TVA and the Corps must deny the proposed development, but that if it is considered further, a full Environmental Impact Statement is required.

**Response:** Comments noted.

- 2. Comments:** TVA never establishes an actual need for the proposed development. As a threshold matter, we are concerned because TVA has utterly failed to establish a need for the proposed River Front development, creating an underlying problem that pervades the whole EA.

**Response:** See permitting agencies' authorities in Section 1.2 [EA, page 6]. The applicant already has the necessary landrights to qualify the proposed shoreline facilities and alterations for consideration. See response to Comment No. 13 above under the Shoals Environmental Alliance's (SEA) Comments.

- 3. Comments:** The EA is seriously flawed and incomplete. The proposed development lies within a stunning, undeveloped cove of the Elk River, with steep cliffs rising above to create a sheltered area for plants, fish and wildlife. A deciduous forest now covers the land, and in the secluded waters fishermen can find a quiet place to cast their lines. Relatively undisturbed areas like this are increasingly rare and special along the Wheeler Reservoir, and they are critical to protecting and restoring the water quality and environmental values in the watershed.

The proposed project would permanently alter the area – putting dozens of boats, jet skis and other motorized vehicles on the water and developing 33 residential lots on the land. TVA fails to adequately disclose or discuss the potential impacts, and in multiple cases, never even raises them at all. This leaves gaping, glaring omissions in the EA – and makes it impossible for TVA, other responsible agencies, and the public to analyze the serious environmental impacts that would result.

**Response:** See page 4 of the final EA for a description of the existing environment at the site and in the vicinity of the River Front Development LLC private property. Based upon available plans submitted by the applicant and shown in Figure 2, also provided are reasonable assumptions of the type, extent, and intensity of development of the project footprint. As noted in Section 1.1, the scope of the EA's evaluation of impacts includes the backlying residential development.

- 4. Comments:** Residential development - The draft EA does not give necessary information and details about the resources currently existing on the 54-acre property targeted for development. TVA attempts to limit its analysis to the TVA-fee owned portion of the project, yet as TVA notes in the draft EA, the proposed docks, dredging, bank stabilization and boat ramp would be developed “in conjunction with a proposed land-based residential development ...” [EA-1; emphasis added]. TVA provides a skeletal description of the residential development from there, only saying it would consist of 33 lots. This gives little information to no information that is necessary to evaluate to proposed development, and never in the draft EA does TVA examine the impacts of the project as a whole. The residential development is an interrelated and interdependent aspect of the proposed project and impacts from the residential development must be included in the analysis. For example: Where will the houses be located? Where will the access roads and utilities go? How much acreage would be paved? What kind of residential development would be constructed? What kind of wastewater and sewage treatment system would it have? How large would individual lots be? Would the development contribute to affordable housing or would instead increase land taxes and values in the area? What type of habitat currently exists in and on the land targeted for development? Are there any bald eagle nest or roost trees on the property, or are there potential future nesting or roosting trees on the property? . . . Additionally, this property does not appear to be one of the tracts of land that was contemplated for development in TVA’s 1995 Wheeler Reservoir Management Plan. The draft EA does not indicate where or how the management plan makes the property available for this type of use. Curiously, TVA included the entire property in the analysis for cultural resources, but it did so nowhere else. This is an illegal compression and avoidance of NEPA obligations of both TVA and the Corps.

**Response:** See responses to Comments Nos. 2 and 3 above. Also, see response to No. 13 above in responses to Comments from the SEA. Except for the land below elevation 556.3 msl, the applicant would be developing his own private property. Although there is no federal control or responsibility for these upland components of the development above elevation 560 msl, TVA and the Corps decided to include these connected actions in this environmental review [EA, page 1]. See the description of the TVA planned land on each of the upstream and downstream sides of the mouth of the cove [EA, page 4] as well as Facility Location in Modified Project Plans and Drawing in Appendix C (see TVA Retained Property).

- 5. Comments:** Water Quality - The Elk and Tennessee rivers suffer from severe existing cumulative water quality impacts, and areas downstream of the proposed development are currently listed as impaired under the U.S. Clean Water Act because water quality standards are not being met. The proposed development threatens to add to these significant impacts, but the EA fails to disclose or analyze the resulting affects.

For example, the Elk River is listed as impaired for excessive nutrient pollution just downstream of the proposed development. . . .

Proposed dredging could also have serious deleterious water quality impacts. . . . Dredging activities would “stir up” any pollutants that have settled in the area, increasing water pollution in the immediate vicinity and areas downstream. Additionally, if harmful pollutants exist within the “spoil” material, dumping it on an upland site would likely contaminate the soil and groundwater, causing another threat to water quality.

**Response:** See response to Comment No. 8 above under SEA's comments. In addition, see the water quality section [EA, page 14], substrate [EA, page 13], and biological availability of possible contaminants in dredged or fill material [EA, page 22]. Dredged spoil material would be transported to an upland-contained holding pond and placed on private land above elevation 560.0 msl. Return water would be filtered prior to its runoff from the pond and sediment and potential pollutants prevented from reentering the reservoir or local streams [EA, page 6, 14 and Section 4.4, page 34].

- 6. Comments:** Impervious surfaces - The proposed development would increase the amount of impervious surface and otherwise alter surface water runoff and drainage patterns in the Elk River drainage. This would have negative implications for water quality, including areas downstream that are currently listed as impaired because they do not meet water quality standards.

**Response:** See traffic/transportation patterns [EA, page 27]. The applicant will be working with Limestone County Commission and appropriate authorities to provide road improvements and utilities to serve the area and fully comply with its requirements. Because of the short length of new road needed and the small amount of additional impervious surface created, impacts of additional runoff on groundwater and surface water would be minor.

- 7. Comments:** Plants, Fish and Wildlife - TVA notes that unique and important habitat exists within and near the proposed development area, but the draft EA summarily concludes the proposed development would have no significant impacts to plants and animals. For example, the Narrow Bluff TVA Habitat Protection Area lies just downstream from Buzzards' Roost, and the proposed development could adversely affect it in any number of direct and/or indirect ways. The draft EA makes brief mention of the protected area but then claims that because it is opposite from the proposed development site, "no impacts to the Narrow Bluff HPA are anticipated ..." [EA-16]. Absolutely no justification for this statement is provided, and other evidence of the effects show the opposite would be true.

....

This leaves one to wonder: What kind of habitat exists in the area? Is there any spawning or nesting grounds that could be disrupted or harmed by the proposed dredging or other aspects of the development? Have fish, spawning or other aquatic surveys ever been conducted in the area? Without such information, potential impacts to fish spawning habitat and to Essential Fish Habitat under the Magnuson-Stevens Fisheries Act are not sufficiently addressed, analyzed or mitigated.

Habitat for the globally imperiled Alabama snow-wreath is just a stone's throw from the proposed development. Have surveys been conducted within project site to determine if existing or potential habitat exists for the species? What about surveys for other plants or wildlife? Have any been conducted? Are the cliffs on and surrounding the proposed development potential habitat for peregrine falcons? What about other cliff-dwelling plants or animals?

Similarly, TVA has received numerous comments noting bald eagle sightings around the proposed development, but tries to dismiss any related concerns, saying a nest site is: "... approximately 5 miles from proposed River Front Development site. Because of its distance from the development, this project would have no effect on the known eagle's nest. This

nest was constructed and continues to be active with current human residential and recreational use in the vicinity. The increased use of the area after the project is complete would have no effect on this nest.” How does TVA know it would have no affect? Would the proposed development reduce nesting and/or foraging habitat for the bald eagle or have other potential affects – particularly when looked at in the context of cumulative impacts? How would the proposed development affect repopulation and recovery of the bald eagle?

**Response:** See response to Comment No. 10 above in response to SEA. See the description of the affected environment at the site and in the vicinity, including the TVA land on EA, page 4. Also, see endangered and threatened species and wildlife habitat, EA, pages 17-20 and 22, respectively. See habitat for fish and other aquatic organisms, water-related recreation, aesthetics, and noise sections, respectively, in the final EA [EA, pages 20, 22, 26, and 29, respectively].

TVA and the Corps did not rely on the USFWS and made their own determinations of effects on federally listed species. It was based on desktop and field investigations. In regard to desktop reviews, the quoted clause from the USFWS letter is standard language. Included in many of its written communications, it is intended to convey the inherent degree of uncertainty associated with dynamic ecosystems in light of limited resources to conduct field investigations where experience, good judgment, and remotely sensed habitat (e.g., maps, photos, imagery, etc.) and other spatial information is available. To help ensure that information for our databases are up-to-date and comprehensive, TVA and USFWS have a semiannual data exchange agreement on endangered species localities covering the TVA service area in parts of the seven Tennessee Valley states.

Essential Fish Habitat under the *Magnuson-Stevens Fisheries Act* applies to marine fisheries and anadromous stocks of fish (i.e., living in the ocean and spawning in freshwater). Because the Elk River lacks both of these types of fisheries resources, being an inland river system with no anadromous fishes, the *Magnuson-Stevens Fisheries Act* does not apply to the Tennessee River system.

8. **Comments:** Boat traffic and safety issues - With numerous new marinas, subdivisions and other developments along the Elk and Tennessee rivers in the last 20 years, boat traffic has also dramatically increased within the vicinity of the proposed development. The proposed project would increase boat traffic and safety problems, as well as water quality impacts. . . .

TVA somehow concludes this increase would have insignificant effects, but does not provide an analysis to prove it true. How many boats are in already this area of the Elk River during a typical or holiday weekend? How many boating accidents occur on these weekends? Have these numbers changed over the years? How many boats can the river safely and ecologically accommodate? Have boating “days” increased over the years? Without this kind of information, TVA provides an empty analysis and makes assumptions that are not justified by the administrative record.

**Response:** See Comment Nos. 13 and 14 in response to SEA. See water-related recreation in the final EA [page 22].

9. **Comments:** Air Quality and Climate Change - The proposed development would create carbon dioxide and other harmful emissions by increasing both vehicle and boat traffic. The draft EA hints at these effects, but never analyzes related impacts to air quality or global climate change. For example, the draft EA states: “Some additional traffic to and from this

development would be expected from the River Front Development's two access roads onto Richter Road; one of which would T-intersect at Richter Road and County Road 566 (see Appendix A) ... After project completion, levels of pollutants normally associated with combustible engines would be higher due to increased traffic within the commercially developing area." [EA-18] These combustible engines from vehicle traffic, as well as motorized-boats, jet skis and other engines the proposed development would emit pollutants that pollute the air and contribute to global climate change. These concerns have never been more important to avoid and mitigate, but yet again, TVA never acknowledges or considers them.

**Response:** Comment noted. See traffic/transportation patterns and air quality [EA. Pages 27 and 28].

Because of the nature, size, and location of the project, such activities, including the removal of a small number of trees, would in the long term contribute only a very small amount of air pollutants through auto and boat emissions. Because the loss of a minor amount of forests would neither affect carbon sequestration nor would substantive amounts of greenhouse gases be emitted from this new shoreline and small residential development, this project would have no effects on global climate change.

- 10. Comments:** Aesthetics - The proposed development would dramatically and forever alter the aesthetics of the area from miles away, creating significant adverse effects. As the draft EA states: The cove and surrounding property lie within an undeveloped area on the lower Elk River. The Elk River shoreline upstream to Maple Swamp Branch and downstream to Anderson Creek is dominated by forested uplands, open agricultural lands, and scattered rural residential properties TVA calls resulting impacts "minor," while also admitting that changes would be "permanent" and would "alter the visual character of the immediate shoreline." While the effects may be "minor" to a TVA official sitting in an office far away from the proposed development, they would be profound and disturbing to long-term residents within the "viewshed." Light pollution and other visual impacts are not adequately described or assessed.

**Response:** Comments noted. See aesthetics [EA, page 26].

- 11. Comments:** Growth Inducing Impact - The proposed development has the potential to "pave the way" for a similar development in the area, but this is another issue that TVA leaves unaddressed and unanalyzed in the draft EA.

**Response:** See discussion about the role of the Limestone County Commission in the final EA [pages 14, 22, 27, 28, and 29], and see the land use classification and cumulative and secondary impacts sections [pages 29 and 31, respectively]. Although slow to moderate growth is occurring along the U.S. Highway 72 corridor between Rogersville and Athens, this portion of southwest Limestone County has grown slowly in recent years, and this trend is likely to continue.

- 12. Comments:** The cumulative impact analysis is faulty and insufficient to meet minimal requirements of NEPA.

. . . . NEPA requires that TVA reveals and examines all impacts from past, proposed and foreseeable projects, but nowhere is such information provided. How many other

development projects has TVA approved in the last 5 years? How about 20 years? What would the impacts of the proposed development be when combined with impacts caused by developments at “Two River,” “The Pointe,” and other areas along the Elk and Tennessee rivers? How would these impacts combine with existing negative effects caused by the dam and flooding of the area? Have petroleum pollutants increased in the Elk River and/or the Tennessee River following TVA’s approval of other development projects? Have any fish or wildlife populations increased or decreased as a result? Have any invasive plant or aquatic species spread by TVA or other federal actions?

**Response:** Comments noted. See cumulative and secondary impacts section in the final EA [page 31].

- 13. Comments:** An Environmental Impact Statement is required - TVA is attempting to approve this project under an Environmental Assessment, but the potential impacts of the proposed development – if adequately disclosed and analyzed – clearly show the environment would be adversely affected in a number of ways. CBD believes a true analysis of the proposal would show it requires disapproval, but at a minimum, triggers the requirements of an Environmental Impact Statement to be considered further.

**Response:** Comments noted.