

were developed, and by 1994, 30 percent of the lots were developed.⁸⁶ Over the past three decades, not all of the 200 subdivisions have been developed, and I fail to see how Defendants can anticipate the effect of final development which may not occur for approximately 60 to 70 years.⁸⁷ Additionally, I note that the Final EIS does attempt to evaluate the effects of developments which might possibly occur during the five-year life span of the 2002 SMP, and hold that the COE acted within its discretion by limiting its consideration of the subdivision development in this manner.

3. COE Studies

Plaintiffs also contend that the COE's failure to consider the cumulative impacts of several ongoing studies connected with the Lake invalidates the Final EIS and 2002 SMP. I disagree.

a. The "Minimum Flow" Proposal

For example, Plaintiffs note that the COE began a study of the White River Basin in May 2000 to determine whether the maintenance of a "minimum flow" of water from the dams on the White River and its tributaries would benefit the White River. According to the record, the Lake is in the White River watershed, and was included in this study. Plaintiffs contend that, if implemented, the project will have a significant impact on the Lake's water levels, the position of the boat docks, and other activities on the Lake, and that the cumulative impacts of the study should have been fully discussed in the Final EIS.

In response, Defendants note that a separate EIS is being, or has been, prepared to determine a plan for reallocation either from a conservation or flood control pool. However, when the COE prepared the Draft and Final EISs for the 2002 SMP, the study had not been completed, the alternatives for the Minimum Flow study were unknown, and the public has not been advised of the study's results. In other words, Defendants contend, the Study was in the initial phases when the

⁸⁶ *Id.* at 2004, 2069.

⁸⁷ ARE at 17329.

COE began its evaluation of the environmental effects of the current SMP. Later, when additional plans were established, the COE instituted a separate environmental study under NEPA to evaluate the effects of the watershed study. Based on the record, the COE did not abuse its discretion by instituting a separate study.

b. The "Mid-Arkansas Water Resource Study"

Next, Plaintiffs contend that another study, the "Mid-Arkansas Water Resource Study" should have been evaluated in greater detail in the Draft and Final EISs. According to this study, the population in central Arkansas will grow from approximately 551,409 to almost 1,000,000 people by 2050, and that expected water usage will increase proportionately. The most feasible sources of water, according to the study, are Greers Ferry Lake and Lake Ouachita. Plaintiffs assert that, although the COE was aware of this study, it failed to examine the cumulative impact of an increased water demand on the Lake.

According to the record, the purpose of this Study is to "evaluate future water needs of central Arkansas and [to] identify sources to meet those needs through the year 2050." It is not a study which will result in any recommendation or action by the COE. Moreover, Defendants note, the Study did not begin until May 2002, after the Final EIS in this case was completed. Defendants contend that it could not evaluate the Study's impacts when the Study had not even begun. I agree that this Study does not fall within the "cumulative impact" requirement under NEPA, and that, at the time the record was compiled, the COE did not have much information and could not be expected to speculate regarding the Study's outcome. There is also no plan, at this time, to take any action with respect to the Lake. This is another reason why the COE could not be expected to evaluate the impact of an action which is not fully contemplated, so no NEPA violation has occurred.

c. The Grand Prairie Irrigation Project

Plaintiffs contend that Defendants should have given more attention to this project, which would, if implemented, require large quantities of water to be pumped from the White River to irrigate farmland with declining aquifers. According to Plaintiffs, this project depends on an adequate source of water, which could significantly affect the Lake. Defendants' failure to consider the cumulative impact of this project, according to Plaintiffs, renders the Final EIS and 2002 SMP invalid.

In response, Defendants point out that the challenged study is an analysis of the depleted alluvial aquifers and the alternative possibility of ground water and White River surface water uses. According to Defendants, the studied area, or project, is located approximately 150 to 200 miles downstream from the Lake and concerns water withdrawal for business and agricultural purposes from the White River. This project has no impact on the Lake, according to Defendants, because the Lake is not located in the Grand Prairie area. Defendants acknowledge that the study was not mentioned in the Final EIS, but assert that its exclusion was proper.

After reviewing the record, I cannot conclude that the COE abused its discretion by excluding the Grand Prairie Irrigation Project from the 2002 SMP's scope. A shoreline management plan has a fairly limited scope. Indeed, the purpose of an SMP is to protect and manage shorelines of all projects under the COE's jurisdiction. To compel the COE to include an evaluation of a project that is located more than 150 miles from the shoreline expands the scope of the SMP beyond its stated purpose. Defendants did not act beyond their discretion when they excluded the Grand Prairie study from the 2002 SMP and Final EIS.

E. MITIGATION MEASURES

Plaintiffs assert that the mitigation measures set forth by Defendants in the Final EIS and 2002 SMP are inadequate under NEPA, and they the measures will not reduce the potential impacts of Defendants' proposed action; therefore, the 2002 SMP and Final EIS are invalid.

NEPA and its implementing regulations require an EIS to "include appropriate mitigation measures not already included in the proposed action or alternatives."⁸⁸ Under 40 C.F.R. § 1508.20, "mitigation" is defined to include: (a) avoidance of the impact altogether by avoiding an action in whole or in part; (b) the limitation of an impact by limiting the implementation of an action; (c) the repair, rehabilitation, or restoration of the affected environment; (d) the reduction or elimination of the impact over time through preservation and maintenance operations; (e) the replacement or substitution of resources or environment.⁸⁹

According to Plaintiffs, the following mitigation measures discussed in the Final EIS are insufficient: (1) monitoring the quality of the water;⁹⁰ (2) recommending "best management practices" by adjoining landowners when the soil surrounding the Lake might be affected;⁹¹ (3) consulting with the State History Preservation Office ("SHPO") before permitting any soil

⁸⁸ 40 C.F.R. § 1502.14(f); *see also* 40 C.F.R. § 1502.16(h).

⁸⁹ 40 C.F.R. § 1508.20.

⁹⁰ Plaintiffs contend that this mitigation measure is insufficient because monitoring the quality of water will simply allow the COE to detect adverse environmental impacts wrought by the 2002 SMP. By the time adverse impacts are discovered, Plaintiffs maintain, the damage will already be done.

⁹¹ Plaintiffs next contend that this mitigation method is insufficient because the COE can not compel landowners to use "BMPs" to reduce the discharge of pollutants. Instead, Plaintiffs contend, the COE defers to the United States Environmental Protection Agency ("EPA") to impose BMP requirements. The EPA, in turn, has delegated its responsibilities to the Arkansas Department of Environmental Quality, which does not usually enforce the requirements outside Pulaski County or in the absence of a citizen complaint. As a result, according to Plaintiffs, many sites do not comply with the EPA's requirements.

disturbance along the shoreline;⁹² (4) using materials for boat docks which will complement the environmental surroundings; (5) establishing a 100-foot vegetative buffer strip for vegetation modification; (6) using the heightened rezoning request evaluation criteria; (7) denying permits for vegetation clearing beyond 50-feet of habitable structures, unless necessary;⁹³ (8) permitting boat docks only in limited development areas; and (9) establishing Very High Scenic Areas ("VHSAs"). These measures are insufficient, according to Plaintiffs, because the Final EIS contains very little substantive discussion or analysis of how these measures would actually benefit the environment; how the measures will be implemented; and the probability of implementation. Because this information is lacking, Plaintiffs contend, the Final EIS is inadequate.

Plaintiffs have identified many concerns with the mitigation measures identified in the Final EIS, and NEPA does require that "action be taken to mitigate the adverse effects of major federal actions" or "that a complete mitigation plan be actually formulated and adopted."⁹⁴ Indeed, the "severity of adverse effects cannot properly be evaluated without consideration of potential mitigation."⁹⁵ Thus, NEPA "requires federal agencies to consider mitigation measures and discuss them in an EIS."⁹⁶ However, an EIS "need not include 'a detailed explanation of specific measures which will be employed to mitigate the adverse impacts of a proposed action,' but rather only a

⁹² According to Plaintiffs, consulting with the State Historic Preservation Office would only affect historic sites that may be in the area. Because there are few such areas around the Lake, Plaintiffs contend, this proposed mitigation measure is meaningless.

⁹³ The 2002 SMP does not contain any criteria or guidelines for use in determining what those site-specific circumstances where an exception may be permitted.

⁹⁴ *Methow Valley Citizens Council*, 490 U.S. at 333.

⁹⁵ *Stein v. Barton*, 740 F. Supp. 743, 751 (D. Alaska, 1990).

⁹⁶ *Id.*

'reasonably complete discussion of possible mitigation measures . . . discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.'⁹⁷

Although Plaintiffs only identified nine mitigation measures, a review of the Final EIS reveals that the COE discussed the mitigation measures projected for each resource area of the Lake, including the watershed area; land use, cover, and land use control; infrastructure; socioeconomic conditions; visual and aesthetic resources; recreation and recreational facilities; geology and soils; ecological systems; cultural resources; air quality; hazardous and toxic substances; and noise levels.⁹⁸ The COE proposes that the impact to these resource areas be minimized by the use of better management practices, which might involve the proper operation of septic systems, limiting the number of permits for construction; planting more grass to minimize soil erosion; maintaining an intact vegetative buffer strip; using earthstone or green materials for boat docks to minimize the appearance of the docks; continual inspection by COE lake managers to ensure compliance with boat dock, vegetative modification, and bath permits, with the authority to revoke or modify permits; additional studies to identify and protect wildlife and their habitats; an attempt to preserve archeological data through photographic documentation, scale drawings, and archival research; ensuring that boat owners are provided with information concerning the proper procedure in the event of an oil spill; and the establishment of noise ordinances or restriction of motor sizes to limit noise.

These mitigation measures are discussed in some detail throughout the Final EIS and although one could surely think of additional measures which might be taken by Defendants to protect the environment, or to minimize the impact of the changes which might be caused by the 2002 SMP, "NEPA does not require a fully developed plan that will mitigate all environmental harm before an agency can act; NEPA requires only that mitigation be discussed in sufficient detail to

⁹⁷ *Id.*

⁹⁸ ARJ at 17322-25.