

# **CHAPTER 5**

## **COMPARISON OF ALTERNATIVES AND CONCLUSIONS**

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This document, as a supplement to the 1973 Final Environmental Statement (FES), analyzes the impacts of operating the system at the current pool level of 478.0 feet, the historical effects of raising the conservation pool level from 471.6 to 478.0 feet and mitigating any adverse effects. The proposed action examines current operations and ongoing effects to resources from operating the Wister Lake project. “Baseline” condition comparisons consist of the environment as it is now, including any historic effects from raising the conservation pool to its present level. The no-action alternative examines the effects to resources if mitigation measures to past and present operations are not implemented.

The resources evaluated include hydrology, geology and soils, water supply, water quality, air quality, biological resources, land use, socioeconomics, recreation, transportation, and cultural resources. In addition, environmental justice and protection of children will be evaluated. Table 5-1 summarizes potential impacts to each resource from the proposed action. The no-action alternative would have the same effects, but mitigation measures would not be implemented, leading to adverse effects to biological and cultural resources.

**Table 5-1 Impacts from Proposed Action**

<i>Resource Chapter</i>	<i>Potential Impacts of Proposed Action</i>	<i>No Action</i>
Hydrology and Water Supply	<ul style="list-style-type: none"> <li>• Increase in conservation pool level to 478.0.</li> <li>• Minimal change in water flow releases.</li> <li>• Minimal change in downstream flooding.</li> <li>• Minor loss in flood control storage (37,532 acre-feet)</li> <li>• No change to surface or groundwater.</li> <li>• Increase in available conservation storage.</li> </ul>	Same
Water Quality	<ul style="list-style-type: none"> <li>• Raising conservation pool has a negligible effect on water quality.</li> </ul>	Same
Air Quality	<ul style="list-style-type: none"> <li>• No change in air quality.</li> </ul>	Same
Biological Resources	<ul style="list-style-type: none"> <li>• Inundation of 3,254 acres of terrestrial wildlife habitat.</li> <li>• Increase of 3,254 acres of aquatic habitat for waterfowl and fisheries.</li> <li>• Loss of 288 acres of waterfowl marsh and greentree reservoirs.</li> <li>• Disturbance and relocation of wetlands and increase of approximately 6,000 acres of open water.</li> <li>• Loss of 2,600 acres of habitat over 100 years.</li> <li>• Increase in the inundation frequency of the original floodplain adjacent to Wister Lake.</li> <li>• <i>Mitigation Measures:</i> reimbursal for loss of greentree reservoirs and construction of new reservoirs.</li> </ul>	Same Impact/No Mitigations
Land Use	<ul style="list-style-type: none"> <li>• Potential increase in recreation use.</li> </ul>	Same
Recreation	<ul style="list-style-type: none"> <li>• Temporary inundation of lower elevation picnic facilities and boat ramps.</li> </ul>	Same
Socioeconomics	<ul style="list-style-type: none"> <li>• Minimal loss of grazing revenue.</li> <li>• No change to socioeconomics.</li> </ul>	Same
Transportation	<ul style="list-style-type: none"> <li>• Temporary flooding of roads.</li> </ul>	Same
Cultural Resources	<ul style="list-style-type: none"> <li>• 18 sites disturbed or destroyed and 10 sites submerged within the 471.6 to 478 level. 18 unevaluated sites may be affected.</li> <li>• 32 sites potentially effected by shoreline erosion between 478 and 485 feet.</li> <li>• 19 sites disturbed or in poor condition above 485 feet elevation by recreational use, vandalism.</li> <li>• <i>Mitigation Measures:</i> On-going consultation would identify appropriate mitigation measures.</li> </ul>	Same Impact/No Mitigations
Hazardous, Toxic, Radioactive Wastes	<ul style="list-style-type: none"> <li>• No change in current operations, will remain in compliance.</li> </ul>	Same
Environmental Justice	<ul style="list-style-type: none"> <li>• No disproportional affects to minorities or low-income populations.</li> </ul>	Same
Protection of Children	<ul style="list-style-type: none"> <li>• Proposed action does not represent health or safety risks to children.</li> </ul>	Same
Cumulative Impacts	<ul style="list-style-type: none"> <li>• No cumulative effects anticipated from other ongoing or proposed actions.</li> </ul>	Same