



Historic Properties

This Fact Sheet provides a brief overview of a specific topic important to the Master Water Control Manual Review and Update Study process. Information contained in this Fact Sheet is summarized from technical reports and the preliminary Revised Draft Environmental Impact Statement.



Summary

Archaeological surveys have discovered nearly 3,000 sites along the Mainstem Reservoir System. Most surveyed sites are located at higher elevations at the three upper lakes. Significant paleontological resources are found in the Fort Peck region. Alternatives C18 and M66 have the least impacts on historic properties. Alternative C44 has the greatest impact on historic properties when compared to the CWCP. It results in an 11 percent negative impact compared to the CWCP, while alternatives C18 and M66 result in a 1 percent positive change. Higher permanent pool levels during a drought account for this difference because lake levels would be closer to a higher density of known sites. Providing additional spring/summer releases to benefit fish and wildlife on the Lower River (FW10, FW15, FW20) has relatively little impact on historic average annual index values, which are used to compare the impacts of the alternatives.



Existing Conditions

Historic properties, as defined by the National Historic Preservation Act, include historic and prehistoric archaeological sites, historic architectural and engineering features and structures, and resources of traditional cultural or heritage significance to Native Americans and other social or cultural groups. Paleontological resources include fossils of prehistoric plants and animals.

Historic properties are scientifically, socially, and economically important. Archaeological sites contain the only existing physical evidence of prehistoric (before written history) people. These sites are also sometimes valued in a subjective, personal, and mystical sense having nothing to do with scientific merit. In

addition to these benefits, visitation to historic properties generates economic activity.

A variety of archeological sites, including historic forts and homesteads, are found within the lakes, along their shorelines, along the river reaches, and on adjacent uplands. Archaeological surveys have discovered nearly 3,000 sites along the Mainstem Reservoir System. Most surveyed sites are located at higher elevations at the three upper lakes. Significant paleontological resources are found in the Fort Peck region.

Historic properties located within the lakes and immediately adjacent zones are subject to the effects of impounded water. Nearly all water-related effects on historic properties are a direct or indirect function of lake level, which determines if a given site is subject to shoreline erosion.

Sites located within the zone affected by fluctuating lake levels and wave action are in danger of eroding. Pottery and bone deteriorate rapidly in this zone because of the repeated wetting and drying.

Sites located deep in the reservoir pool, below the shoreline fluctuation zone, are partially protected because they are inaccessible and covered by silt and water. However, the water and chemicals in the soil can harm the artifacts. Inaccessibility does make it difficult to discover and protect the artifacts, though. If lake levels are lowered, areas that may not have been intensively surveyed for historic properties prior to the lake filling would be affected. Although these undiscovered sites within the lakes likely have already been damaged to some extent by water and silt, lower lake levels could also expose them to the effects of shoreline erosion.



Comparison of the Alternatives

Impacts of each alternative on historic properties were determined by comparing an index value based on the number of months known sites are subject to shoreline erosion at the upper three lakes. The higher the index value, the less impact to known historic properties. The analysis was conducted for the entire 100-year period of record. Historic properties on the three downstream lakes and along open river reaches were not included in the analysis. Water elevations in the three downstream lakes vary little among the alternatives, and no significant change from current conditions is anticipated. Data concerning historic properties along open river reaches are inadequate for general analysis, but are unlikely to measurably influence the index values established for the upstream lakes.

The figure presents the total average annual index value for each of the alternatives. Some values are greater than and some are less than the CWCP. Alternatives C18 and M66 have the least impacts on historic properties compared to the CWCP, with a total average annual index of 4,919. Alternative C44 has the greatest impact, with a total average annual index of 4,298. Adding increasing levels of conservation has a negative effect primarily because the lake levels stay higher in the drought periods for alternatives C31 and C44, which means that the lake levels continue to stay near the levels of the higher density known sites. Providing additional spring/summer releases to benefit fish and wildlife on the Lower River has relatively little impact on historic total average annual index values. The impacts of alternatives FW10 and FW15 are similar to the impacts of alternative C31, their base plan.

Total average annual historic properties values

