

EXECUTIVE SUMMARY

In December 2011, EA was contracted by the WSSC to conduct an independent evaluation of the WSSC owned buffer property surrounding the Rocky Gorge and Triadelphia reservoirs, and provide recommendations on current and future uses and management of the property that might affect or improve water quality, and reduce storage capacity losses.

This report provides an overview of the approximately 5,500 acres of WSSC-owned buffer property surrounding the Rocky Gorge and Triadelphia reservoirs with specific discussions of soil erosion, water quality impairments, and impacts from public uses of the WSSC watershed buffer property. The report summarizes the results of field observations by EA staff to evaluate the condition of the WSSC Access Roads and buffer property trails, the results of a desktop analysis to map highly erodible soils (HES) within the buffer, and provides recommendations for reducing the potential for negative impacts to reservoir water quality. Information from two public stakeholder meetings conducted as part of the project is also discussed.

The report also presents the results from a limited survey of several national water supply utilities in order to characterize the range of source water protection policies that other organizations are taking in different regions of the country to protect reservoir water quality. The focus was on policies related to recreational uses and shoreline buffer restrictions. It is clear from this survey that there are no consistent recommendations for what is required to reasonably achieve source water protection from specific recreational uses. Nevertheless, the existence of such restrictions acknowledges the special protection that is afforded to drinking water supply sources.

EA's report then presents detailed observations and maps of all the existing trails, WSSC Access Roads, and public access points within the Rocky Gorge and Triadelphia reservoir buffer properties. The report summarizes results from the approximately 80 miles of GPS trail mapping, slopes and observed erosion impact zones, suitability of specific trails for equestrian riding, public parking at designated access areas, safety issues, trail alignment and location of highly erodible soils (HES), and observations of trash, horse manure, and signage. One of the study's major findings is that the vast majority of actively used shoreline trails is unauthorized. The same is true for the old interior horse trails within the Rocky Gorge buffer property that were closed in May 2011, but were found to still be actively used.

The report concludes with detailed discussions of the results and observations from the study, and recommendations to better manage the Commission's buffer property to maintain and improve reservoir water quality. Topics include: observations and results from the stakeholder meetings, an evaluation of erosion potential and relative sediment loadings, suitability of the Access Road and interior trails for equestrian use, policing and enforcement, forest and reservoir management issues and a variety of specific property management issues. Key observations and recommendations from this study are then summarized in the final section of the report.