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**ADDITIONAL INFORMATION**

July 2003 Oklahoma Department of Environmental Quality News Release

Diagnostic and Feasibility Study of Grand Lake O’ the Cherokees

# LOWER NEOSHO RIVER WATERSHED

## EXISTING CONDITIONS

A portion of the Lower Neosho River watershed, which includes Spring River and Grand Lake, is impacted, to some extent, from the mined areas upstream. Information from the March 1995 Diagnostic and Feasibility Study of Grand Lake O' the Cherokees documents the distribution of metals and nutrients in the water column and metals in the sediment. The July 2003 press release from the Oklahoma Department of Environmental Quality documents preliminary findings regarding lead and cadmium levels in bottom-feeding fish sampled at various locations in the Neosho River at the upper end of Grand Lake and the Lower Spring River. Copies of the 1995 study and 2003 press release are provided in this section of Appendix E.

## SAMPLING PROGRAM

A potential strategy to investigate the loading of mine waste to the lower Neosho River Watershed would include the following:

- Obtain a depositional history of metal loading to Grand and Hudson Lakes.
- Determine current loading and monitor future loading of metals from the Spring and Neosho rivers during cleanup of the Picher/Cardin area.

## COST ESTIMATE

The preliminary cost estimate for the depositional history analysis is provided in Table 1. Monitoring costs are included in the USGS cost estimate shown in the introductory document at the beginning of Appendix E.

Table 1. Preliminary Cost Estimate for Sampling in Lower Neosho River Watershed (\$1,000,000)

Downstream Impacts Determination at Lakes Grand and Hudson	Y1	Y2	Total
Determine sediment history and loading by obtaining cores, sediment and conducting analysis of bed material.	0.374	0.374	0.748