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WATER QUALITY IMPACTS OF THE EARLY  
DRAWDOWN OF NORMANDY RESERVOIR  
FALL 1990

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## INTRODUCTION

Routine maintenance work at Normandy Dam required the reservoir to be drawn down early to reach its normal minimum pool level (elevation 864) by November 1, 1990. The drawdown was scheduled to begin one month early, on October 1. If the water elevation at the dam was comparable to Normandy's 13 year median or guide curve (Figure 1), the reservoir would have had to have been drawn 8 or 11 feet in 30 days. However, due to a relatively hot and dry summer and fall, the reservoir needed only to be drawn approximately 5 feet beginning October 12 to meet the November 1 goal.

This report presents and summarizes the data collected to monitor effects of the early drawdown of Normandy Reservoir. Data was collected during the period of August 20 through November 26, 1990. The primary purpose was to determine any effects the early drawdown would have on the Duck River Utility Commission's (DRUC) raw water quality at Duck River Mile (DRM) 255.0. The information gained from the analyses may be used to help predict how different drawdown scenarios may impact water quality resulting from future operations and maintenance of Normandy Dam. In addition, water quality monitoring was also conducted upstream (DRM 259.4) and downstream (DRM 248.6) of the DRUC intakes to provide further information pertaining to the water quality and dynamics of the Normandy Reservoir system.