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<p>15. Abstract</p> <p>The purpose of this research is to analyze the flowline data and relate it to the degradation of the river bed at bridge locations in the river. This information may then be used to replace or rehabilitate those bridges that experienced severe degradation.</p> <p>This report evaluates about channel degradation in 404-mile reach of Washita River in Oklahoma. In this study, the 409.76 mile river length is divided into two Reaches: Reach 1- river station (RS1) to Foss Dam, and Reach 2- Foss Dam to RS 39. The flowlines of Washita River in Oklahoma were observed for a long period. In Reach 1, RS 3 shows the maximum degradation of 6.08 feet in 74 years. Similarly, RS 31 shows the maximum degradation of 9.61 in feet 34 years. On the other hand, channel aggradation of 22.24 feet is observed at RS 39 in Reach 2.</p> <p>None of the bridges in Washita River has experienced channel bed degradation above 10 feet. Maximum degradation of 9.61 feet in 34 years in observed in river station 31 (Bridge Key b17956) on S.H. 17A. If this bridge is selected for reconstruction, it is recommended that a detailed hydraulic and geotechnical analysis should be performed.</p> <p>It is recommended that degradation of tributaries is evaluated to determine the structures where flowline is severely degrading in Washita River basin.</p>			
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