

## RJN Addresses Source of Coal Creek Chronic Overflows

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The City of Tulsa received a Consent Order, in 1990, from the Oklahoma Department of Environmental Quality to eliminate overflows citywide.

Faced with recommendations from previous studies to construct extensive large diameter relief lines, the City decided to pursue a different route and targeted aggressive I/I reduction.

One of the first projects to be initiated was in the Coal Creek Basin. There were four areas that were addressed by the Consent Order in which the manholes would overflow on a routine basis during wet weather.

RJN Group, Inc. conducted a comprehensive SSES, which included manhole inspection, dyed water testing, smoke testing, building inspection, and TV inspection. The data was input into a database and analyzed with respect to cost versus potential I/I removal.



2,700 manholes were identified with frame defects. Dual blower smoke testing effectively identified Tulsa's old clay pipe with leaking joints.

This information was combined with a hydraulic model to determine the recommended plans. A total of 6,649 defects were located with a combined inflow rate of 20.4 mgd.

Subsequent to the study, RJN prepared plans and specifications, and administered construction for two manhole rehabilitation contracts and two pipeline rehabilitation contracts totaling over 9,500 linear feet of 8- to 42-inch diameter sewer line.