



**Case Study Category:** MPDW

**Case Study Title:** Performance curve and its application in prestressed concrete cylinder pipe (PCCP) pipeline at WSSC

**Utility Name:** Washington Suburban Sanitary Commission (WSSC)

**Case Study Abstract:** This case study focuses on the performance curve that the Washington Suburban Sanitary Commission (WSSC) use for risk evaluation of prestressed concrete cylinder pipe (PCCP) based on the wire break information from electromagnetic and acoustic fiber optic monitoring system. Finite element method was used to develop the performance curve. There are some limitations in the performance curve, due to its strong assumptions and the curve only focuses on the middle section of the pipe. More detailed finite element analyses are required for more accurate structural performance of the pipe.

**Case Study Link:** <http://waterid.org/content/performance-curve-and-its-application-prestressed-concrete-cylinder-pipe-pccp-pipeline-wssc>