

Rooting out the problems of

Good collection system practices require regular inspections and ongoing maintenance. Recording the condition of assets requires a standard set of terms, procedures, and ratings. The Pipeline Assessment & Certification Program (PACP) helps fill this need.

The Defect Detective series provides an introduction to PACP and offers the opportunity to put your defect detective skills to the test.

This photo shows the somewhat “hairy” situation found during a sewer inspection. Use your Defect Detective skills to answer the questions below about this operation-and-maintenance defect.

What is the value (% of loss of cross-sectional area) associated with this defect? Is it 5%, 20%, or 50%?

Code the operations and maintenance defect. Would you describe this as a continuous defect (3 out of 4 joints)?

What are the rehabilitation options for this defect?



Decoding the August Defect Detective

The August installment of Defect Detective, titled “Categorizing codes and putting it to use” posed several questions regarding the photo below, right. See how the experts decoded this section of pipe.

What code should be assigned to this structural defect?

It is a broken pipe (B) associated with a joint from 10 to 3 o'clock. The code “Broken” is defined by the pieces of pipe being in position but “noticeably displaced.”

What is the condition grade associated with this defect?

It has a structural condition grade of 4 per the condition code matrix in appendix C of the PACP manual. Broken pipe has very little structural capacity and is, therefore, given a relatively high score. If there were soil or void visible within the breaks, then it would be a condition grade 5.

What structural quick rating should this segment receive if the pictured defect is the most severe structural defect, and four other structural defects exist with a condition grade of 3?

4134 – one occurrence for a grade 4 and four occurrences for a grade 3.

What are the rehabilitation options for this defect (segment of pipe)?

Broken sewer is an ideal candidate for cured-in-place pipe (CIPP) or pipe-bursting. If there are only one or two occurrences of broken pipe in this sewer segment, CIPP or mechanical spot repairs could possibly be used.

