

## *TV Data Conversion Services using PACP*

*TV inspection software is an innovative solution for simplifying sewer inspection projects. The software allows you to collect, edit, analyze, and archive all inspection data digitally, eliminating the need for mechanical VHS tapes and the paper forms and reports that typically accompany TV inspection.*

*Once the video is digitally captured and incidents are electronically logged using the industry standard PACP coding procedures, inspection data can be edited and verified for quality control. Once the data is logged it can be used for many purposes including work order scheduling and graphical display utilizing GIS.*

*Existing TV inspection can be retrofitted for a fraction of the cost of original TV and also result in a quick start toward Pipeline Condition Management.*

***How are you managing your  
TV Inspection Data?***

## OTHER SERVICES

White Rock Consultants offers specialized services for the planning, management and implementation of wastewater collection infiltration/inflow reduction programs. Services include:

- ◆ Infiltration/Inflow (I/I) Program Planning and Management
- ◆ Training and Data Analysis for In-House I/I Programs
- ◆ NASSCO Certified Pipeline Assessment and Certification Program training.
- ◆ I/I Report Consolidation and Special Projects



Dallas, TX

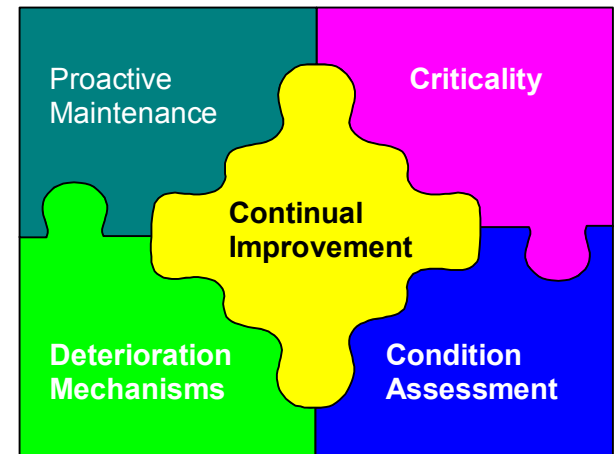
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# Sewer Pipeline Condition Management



***A continual process for  
providing an acceptable  
level of pipeline condition  
utilizing condition assess-  
ment, preventive mainte-  
nance, and proactive re-  
newal, in perpetuity***

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# The Need For Pipeline Condition Management

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*As wastewater collection systems in the United States age, they become less reliable and more subject to failure. This necessitates more preventive maintenance and renewal. However many utilities find the rate of sewer deterioration exceeds the rate of renewal. Several national organizations have quantified a funding gap between the amount of money needed for sewer renewal and the actual amount of money available. This gap means utilities must not only use renewal funds wisely but must also find new ways to convey the need for more funding to the ratepayers and decision-makers. One approach toward meeting those requirements is through Pipeline Condition Management .*

**The components of Pipeline Condition Management are as follows;**

## ◆ **Identify Critical Sewers / Consequence of Failure**

*Because of factors such as depth, diameter, or traffic, some sewers have a higher importance than others and require closer scrutiny. A matrix appropriate to the utility is created to identify and characterize these critical sewers.*

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## ◆ **PACP Condition Assessment**

*The Pipeline Assessment and Certification Program developed by NASSCO provides a standard for CCTV data collection, User training, database exchange, software vendor certification, and pipe segment grading. This enhances data quality control, data integration, and program implementation. PACP is used to collect detailed condition information on each pipeline using internal TV inspection.*

## ◆ **Deterioration Analysis**

*All sewer pipelines do not decline at the same rate. Major deterioration factors such as soil conditions, groundwater, surcharging, H<sub>2</sub>S, roots, etc are identified and used in conjunction with the structural condition and critical rating for development of preventive maintenance activities and renewal plans.*

## ◆ **Proactive Maintenance**

*A decision matrix is created that uses the PACP condition assessment data, the deterioration mechanism information, and other data to assign preventive maintenance activities and intervals appropriate to each pipe segment. This allows more frequent maintenance for problem lines and provides a way to avoid applying resources to pipe segments that are largely problem-free.*

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## ◆ **Planned Replacement**

*The close monitoring of sewer pipeline condition and the understanding of deterioration mechanisms and pace of condition decline provides the opportunity to anticipate renewal of sewer lines many years before the sewer fails. Better identification of deterioration mechanisms can result in finding alternatives that reduce the impact of the most damaging mechanisms.*

## ◆ **Continual Improvement**

*Continuing the process of condition assessment, deterioration analysis, proactive maintenance, and planned replacement will create new opportunities to improve efficiency and customer service by enhancing the knowledge of the staff regarding the long-term operation of the collection system.*

## ◆ **Summary**

*CCTV inspection provides a rich and detailed assessment of the internal pipe conditions. This data can then be utilized in a wide variety of applications.*

*Careful monitoring of changes in pipe conditions present improved opportunities to understand and characterize the overall wastewater collection system condition and to anticipate how the wastewater collection system condition may change in the future.*

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