



# NEWEA Collections Systems Conference

September 12<sup>th</sup>, 2016

Ted DeBoda, P.E.

NASSCO Executive Director



Unified Commitment | Higher Standards | Better Communities

Web [nassco.org](http://nassco.org)

# Outline

- Background to NASSCO
- Pipeline Assessment Certification Program (PACP)
- Trenchless Technologies
- Inspector Training Certification Program (ITCP)
- NASSCO Resources
- Our Future



# Background to NASSCO

- Founded in 1976, NASSCO is the National Association of Sewer Service Companies
- NASSCO is a not-for-profit corporation
- Serves all areas of pipeline maintenance and rehabilitation industry



# Background to NASSCO

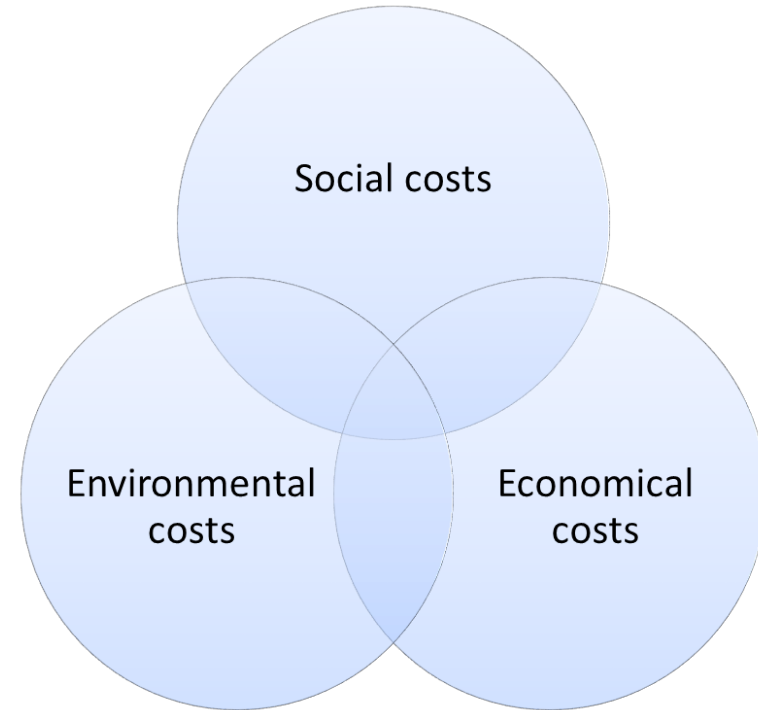
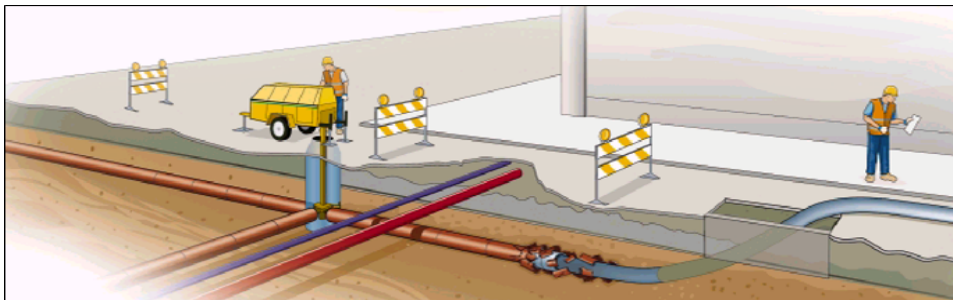
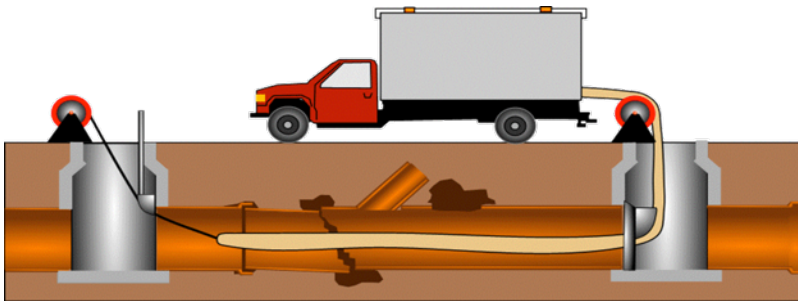
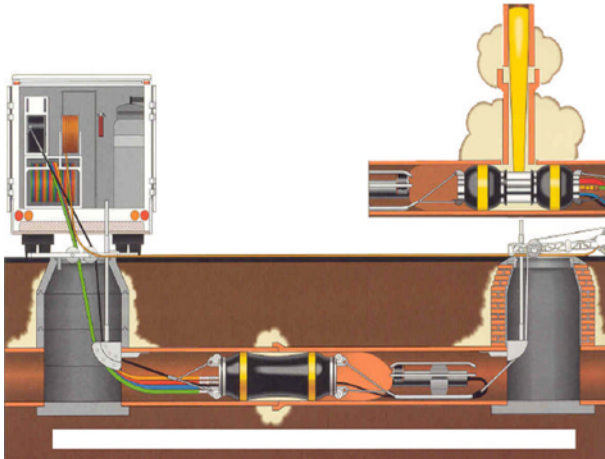
- Mission:
  - To set industry standards for the **maintenance, rehabilitation and assessment** of underground pipelines and to assure the continued acceptance and growth of trenchless technologies
- Goals:
  - To improve the success rate of everyone involved in the **pipeline rehabilitation** industry through
    - Education,
    - Technical Resources, and
    - Industry Advocacy



# Why Trenchless?

Web [nassco.org](http://nassco.org)

## Triple Bottom Line



# Pipeline Assessment and Certification Program (PACP)

- Before 2001, industry in US had no standards
- NASSCO led effort to develop
- Based on Water Research Centre (WRc) codes
  - Many years of use in UK
  - WRc providing consulting services to NASSCO

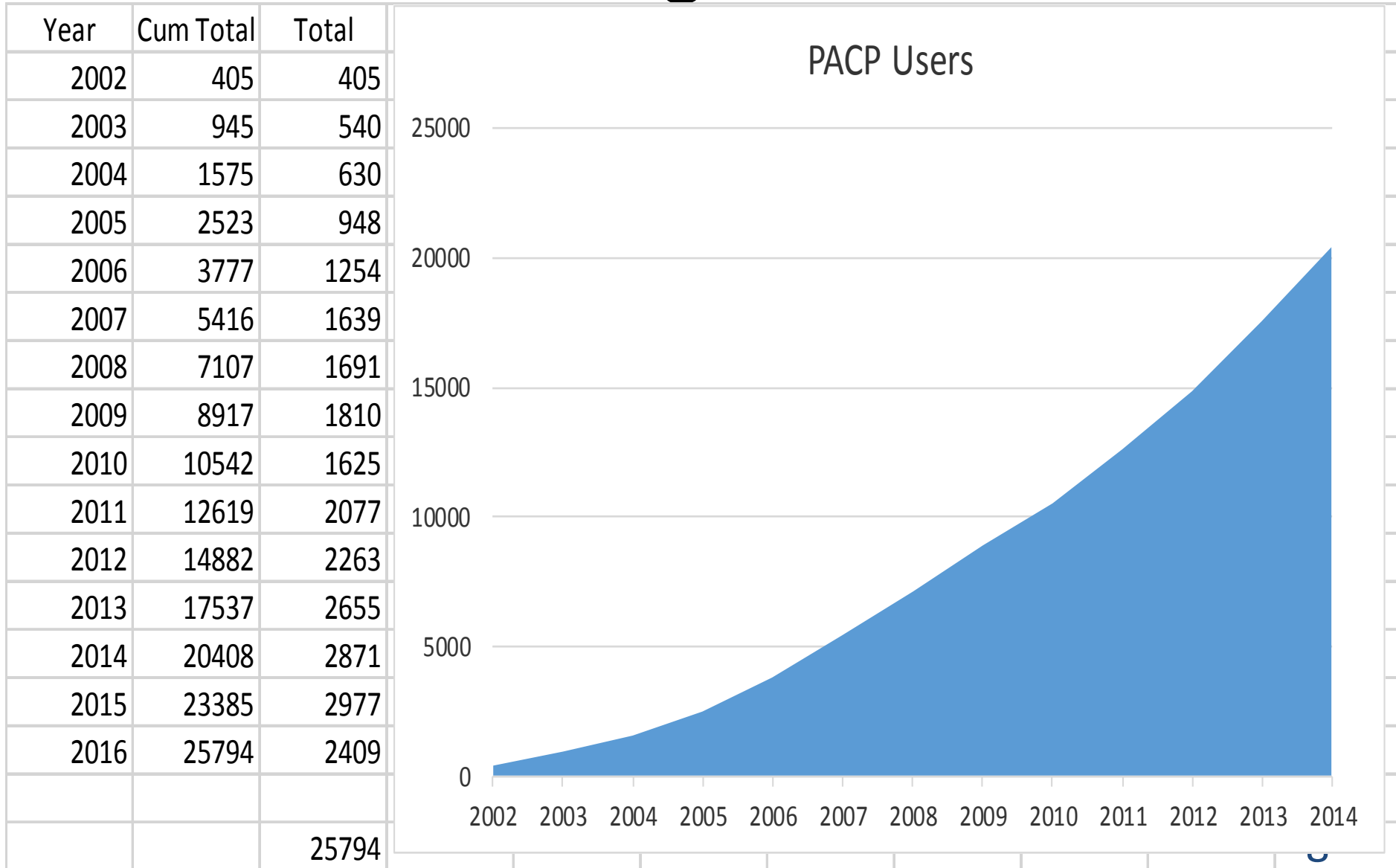


# PACP, MACP & LACP

- PACP released in 2002
  - MACP released in 2006 and modified in 2010
  - LACP released in 2010
- 
- A user can inspect all three components of a collection system with one standardized coding system



# Training to Date





# PACP Review Team

Web [nassco.org](http://nassco.org)

(Partial list)

- **ACPA**
  - Al Hogan
- **ADS**
  - Chris Owen
  - Shawn Coombs
- **Army Corps of Engineers**
  - Christina Neutz
- **Aqua Data**
  - Ronnie Flannery
- **Arcadis**
  - Jim Shelton
- **City of Murfreesboro, TN**
  - Keith Carpenter
- **DPW LA County**
  - Robert Swartz
- **EnviroWaste Services**
  - Leyma Cuesta
- **FLDOT**
  - Larry Richie
- **Greely & Hansen**
  - PD Huston
  - Ed Carpenetti
- **Independent**
  - Marilyn Shepard
  - Irv Gemora
- **Mar-Tech**
  - Jason Roy
  - Bob Taylor
- **MSDGC**
  - Jerry Weimer
- **NASSCO**
  - Ted DeBoda
  - Gerry Muenchmeyer
  - Diego Calderón
  - Jane Bayer
- **NCPI**
  - Larry Tolby
- **PEC**
  - Steve Mortensen
- **Pipe Logix**
  - Jeremy Wagner
- **RRS**
  - Ed Kampbell
- **Uni-Bell**
  - Steve Cooper
- **WRc**
  - Andy Drinkwater
  - Line Poinel
  - Peter Henley
- **WSSC**
  - Satish Patel



# Pipeline Assessment and Certification Program (PACP)

- Recertification
- Certified Software
- Updates
- Online PACP Recertification



# PACP Coding

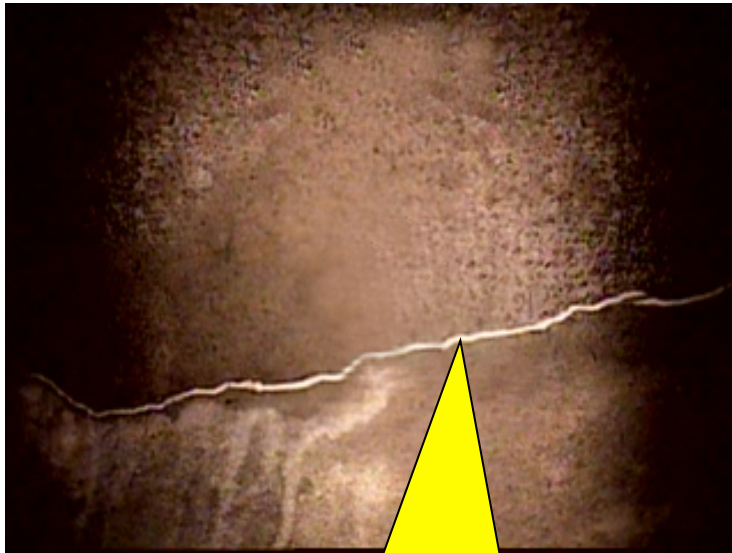
- Pipe codes are applicable to storm sewers and culverts, including:
  - Structural Defects
  - Operation & Maintenance Defects
  - Construction Features
  - Miscellaneous Features
- PACP assigns Pipe condition grades based on codes observed



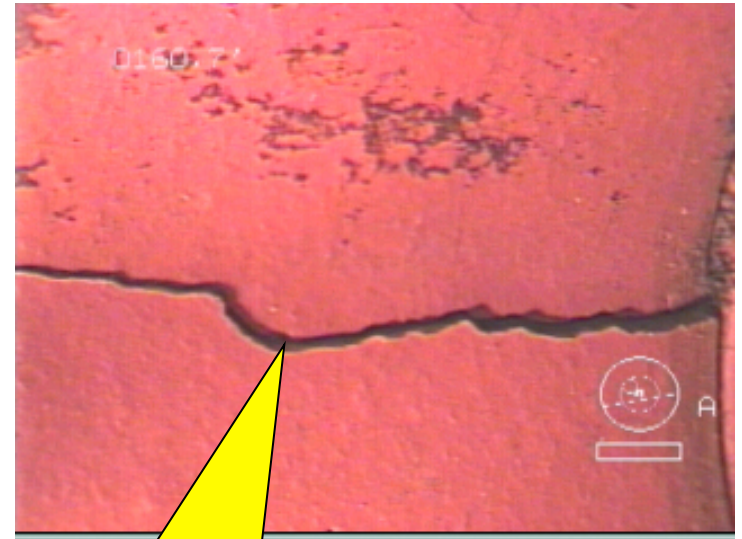
# Certified Software



# Specific, Defined Defect Codes



**Crack = not open**



**Fracture = visibly open**



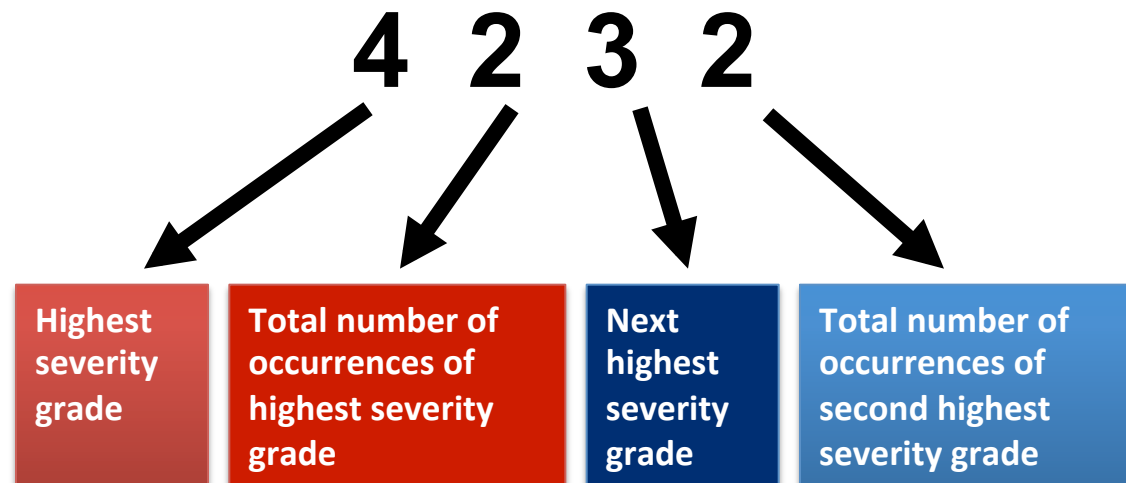
# PACP Condition Grades

- Each defect has a condition grade
- Condition Grades range from
  - 1 – Least severe
  - 5 – Most severe
- Used to develop segment scores



# PACP Quick Rating

- A shorthand way of expressing the number of occurrences for the two highest severity grades
- A four character score



# Inspector Training and Certification Program

- CIPP
- Manhole Rehab
- Injection Grouting (coming)





# Inspector Training and Certification Program

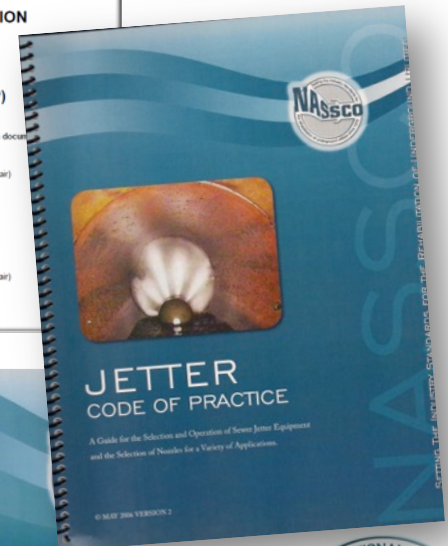
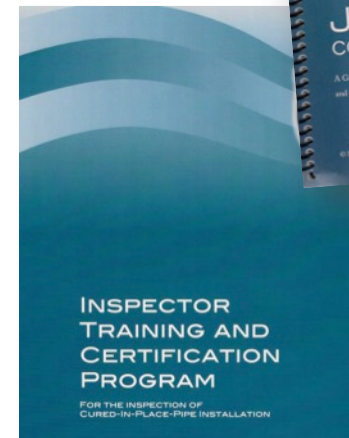
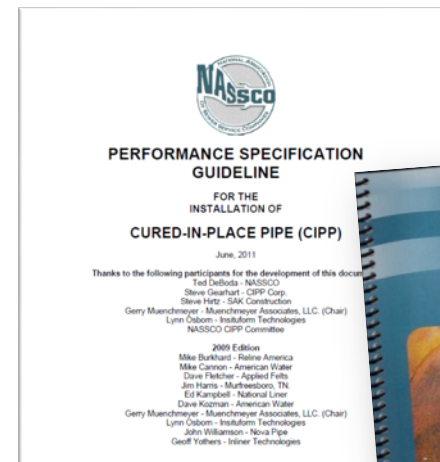
- 1.5-day class with exam
- Illustrated Manual
- Specifications
- Inspection Forms
- Quality Control Requirements
- Specialized Testing Equipment and Techniques



- Benefits of the NASSCO Inspector Training & Certification Program - CIPP Program over other available programs. Many of these benefits are fully copyrighted and cannot be obtained from any other source.
- • Trainers are experience field experience professionals that bring real world experiences to the program.
- • The NASSCO training is a certification programs which requires the students to pass a test to verify their knowledge
- • The NASSCO program provides the inspector with 5 clearly defined inspection requirements before and during CIPP Installation, providing the inspection tools, requirements and documentation forms
- • The NASSCO program provides the inspector with 5 post installation inspection requirements providing justification for each task and the inspection requirements, instructions and documentation forms
- • The NASSCO program includes a chapter on project specifications that make inspection possible and effective for the inspector
- • The NASSCO provides for the inspector a fully illustrated manual including typical defects that may occur on the project site
- • The NASSCO program include inspector technical support after the program is complete and during field inspection activities.

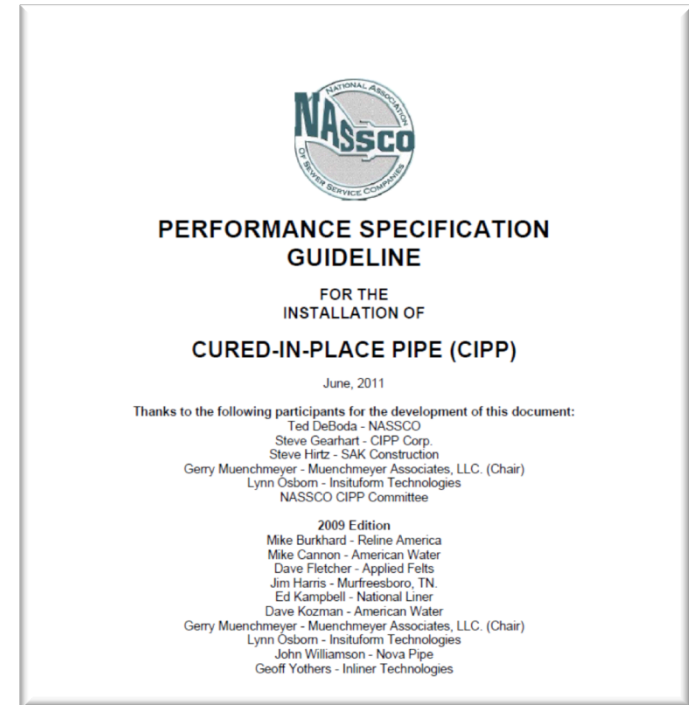
# Technical Resources

- Specification Guidelines
- Jetter Cleaning
- RehabZone
- Education
- Media
- Strategic Initiatives



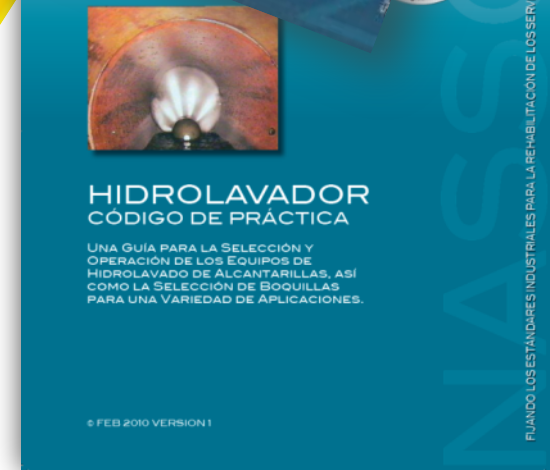
# Specification Guidelines

- CIPP
- Pipe Bursting
- Injection Grouting
- CCTV
- Pipe Cleaning
- Manhole Rehab
- Large Diameter Pipe Cleaning (coming)



# Technical Resources

- Pipe Cleaning
  - Jetter Code of Practice
  - Jetter Cleaning Video
- RehabZone
  - Hands-in, Interactive Training
  - Technology Guide



Welcome to the

# REHABZONE

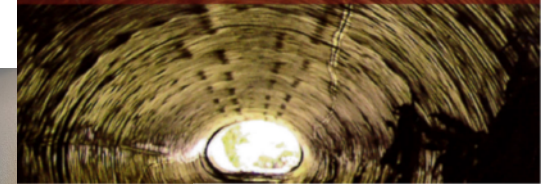


# Education

Web [nassco.org](http://nassco.org)

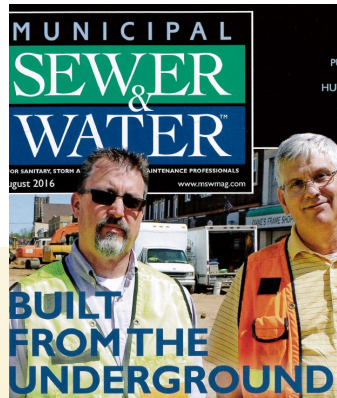
- CURIE Textbook
- Webcasts
  - WEF
  - Trenchless Technology
- Seminars
- Sewer History Exhibit

## Pipeline Infrastructure Renewal and Asset Management



# Media

- NASSCO Times
- Trenchless Technology
- Underground Construction Technologies (UCT)
- Utility Infrastructure Management (UIM)
- Municipal Sewer and Water
- Cleaner Magazine
- WE&T



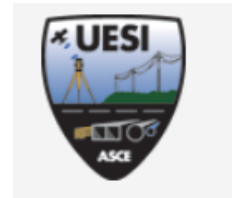
**underground  
construction**



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# Strategic Planning

- Increased Collaboration
  - WEF
  - ASCE Pipelines (UESI)
- MA Partnerships
- Online Training
  - MACP/LACP Recertification
  - ITCP Recertification
  - Other Training
- NASSCO Trenchless MOP







Mark Your Calendars

**EVENTS**





# Imagine a Day Without Water

September 15, 2016

## Re-Living 50 Years of Municipal Sewer Grouting & WHAT'S NEXT

Thu, Sep 22, 2016 2:00 PM EDT

[+ Add to Calendar](#)





# CONFERENCE ANNOUNCEMENT

89th Annual Water Environment Federation Technical Exhibition and Conference  
New Orleans Morial Convention Center | September 24–28, 2016



CONFERENCE  
ANNOUNCEMENT





# Jammin' 4 Water

MUSIC WATER HUMANITY  
**GENERATIONS HALL**

310 Andrew Higgins Drive, New Orleans • September 24, 2016 • 6:00 pm – 1:00 am

**www.jammin4water.org** **TICKETS NOW AVAILABLE**

Proceeds benefit the SYPC-organized service projects and water-focused charities. Corporate sponsors and amateur musicians contact: dlinman@ndrinc.com

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 Xylem

## TED DEBODA

Executive Director, NASSCO

Ted DeBoda has been singing and playing guitar since the mid-1980s. He got his start singing in a rock band, as well as several church choirs and today plays mostly acoustic-electric guitar. He recalls how he even entered "Presbyterian Tenor" under religious preference on his first dog tags issued when he entered the military, a nod to his tenor singing voice and interest in contemporary Christian music. DeBoda says his influences over the years have derived mainly from classic rock bands like The Who and Hall and Oates.

In the late 1990s and early 2000s, DeBoda started playing contemporary Christian music at church, eventually forming a band called Psalt and Light. They have stayed together and continue to play at coffee houses and churches in Delaware and Maryland.

In the world of trenchless technology, DeBoda is the executive director of the National Association of Sanitary Sewer Companies (NASSCO), which represents contractors, engineers, municipal employees and other groups involved in the assessment and rehabilitation of sewer systems. Although DeBoda's time is heavily consumed leading the association's staff and programs, he says he maintains his interest in music and still gets a high from playing live with other musicians.

"The coolest thing about performing is when everything clicks," he says. "It's hard to explain, but you can be technically correct in all the notes being played at the right time, but other times you can get into 'the zone' where the music clicks, which is far better than being technically accurate."

DeBoda says he recently became involved in Jammin'4Water, an annual jam fest held the Saturday before WEFTEC that raises money for water charities like Water for People, Engineers without Borders, and others. The event draws hundreds of musicians in the water/wastewater industry. "Oddly enough, it's a great way to meet others in the industry with similar interests," he says. "We have developed relationships with other industry professionals that would not have happened if not for Jammin'4Water."



When it comes to music, DeBoda is also passionate about his guitars and has some cool stories about some of the guitars he's had over the years. He also has some advice for aspiring players.

"An 80-plus-year-old woman once gave me a guitar that she received as a present for her 10th birthday. The guitar was a Silvertone purchased at Sears and Roebuck back in the 1930s. The cool part is that I played her one of her favorite songs on her guitar before she passed away," he says.

"If you are interested in picking up an instrument like the guitar, then don't go out and buy the cheapest one out there. It's an investment of your time, so make it worthwhile. That said, don't go buy a \$6,000 instrument, but it should hurt the wallet, if only a little bit."



# World Toilet Day

19 November





# The Future

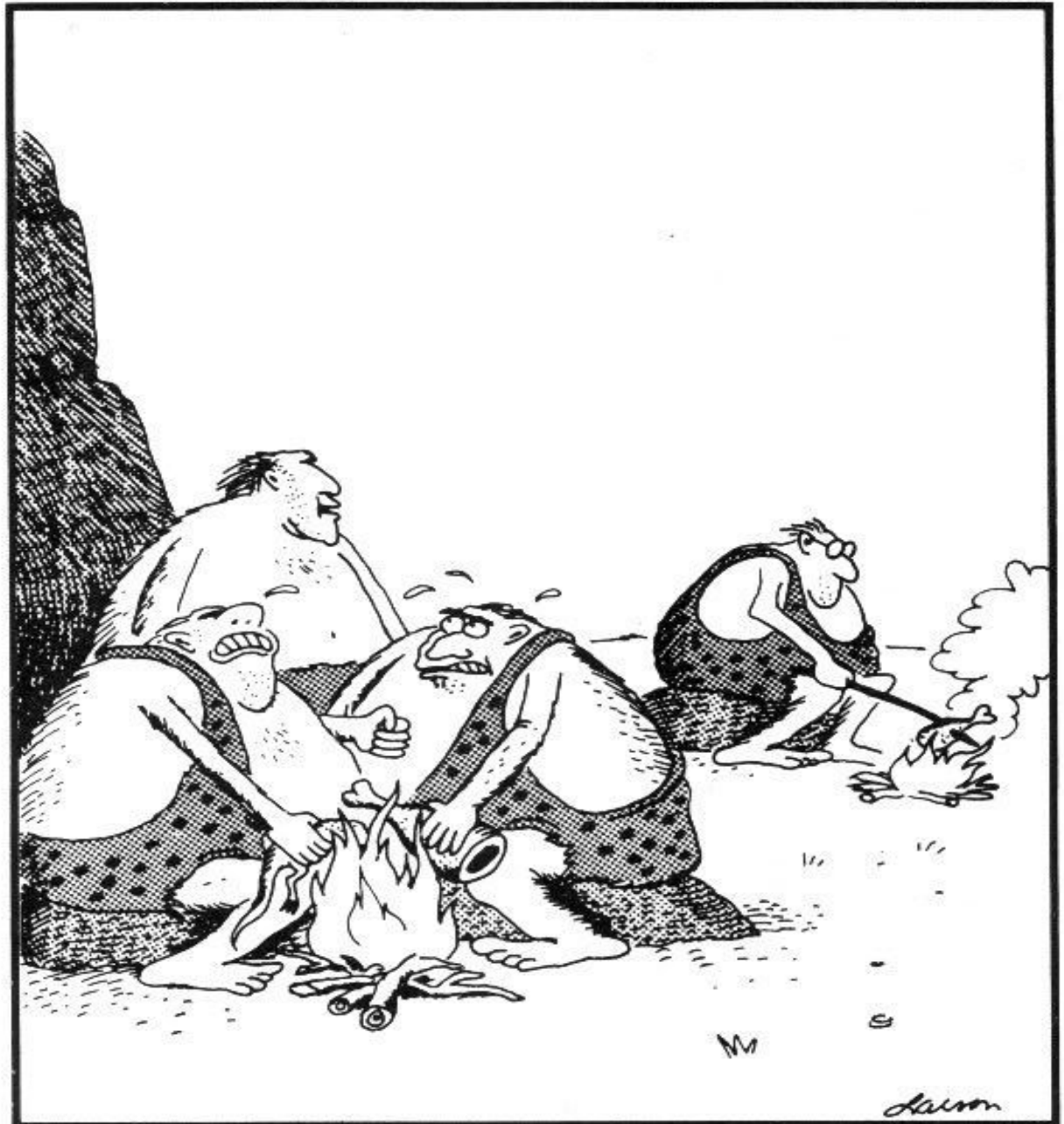
Web [nassco.org](http://nassco.org)



- Industry Collaboration
- Standardization
- GET INVOLVED



# Evolve!



"Hey! Look what Zog do!"



# Questions?



# More Information?

**Ted DeBoda, P.E.**

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Executive Director

NASSCO

(410) 442-PIPE

