MAINTAINING OFF-ROAD SEWERS
Easing the Pain of Easements
Mark Grabowski & Bruce Ward
Agenda

• How Often?
• Why?
• Strategies
  • Easement Machines
  • Rodders
  • Trailer Jets
  • Truck Jets
  • Bucket Machines
• Other Methods
Great idea + 1941 = Great idea
Lightweight Power Rodder for Sink and Bath Lines

**Electric Snake**

- Opened stopped plumbing and drain lines
- "Plug-in" electric power does the job
- No manual labor—eliminates hand tools

**Sewer Equipment Company of America**

**DIXON, ILLINOIS**

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**1942**

**TODAY**
HOW OFTEN?
Most Industry Professionals Agree
(Assuming No Aggravating Issues)

Every 5 Years
WHY?
PREVENT FUTURE ACCESS ISSUES
PROTECTION OF A PUBLIC ASSET
MAINTAIN CAPACITY & FLOW
HELP LIMIT LIABILITY
METHODS
EASEMENT MACHINES
PURCHASE OR RENT
Traction
Flotation
Lateral Stability
Obstacle Navigation
Price
Secondary Reel
Additional Tools
JET TRUCKS
Dual reel options
Superior cold weather operation
VACUUM TRAILERS

Cost effective
Add to existing jetter
Split jetter/vacuum purchase
Great for lift stations & basins
Long cycle life
Jet & excavate simultaneously
VACUUM TRAILERS

- 3”, 4”, 6” hose
- Boom / No Boom
- With / Without Water
- Blowers from small to large
- Engines from small to large
TRAILER JETS
NOT JUST A TRAILER JET
RODDING MACHINES
<table>
<thead>
<tr>
<th>Days per week</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallons per day</td>
<td>3000</td>
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<tr>
<td>Weeks per year</td>
<td>50</td>
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</table>

Total gallons per year: 450,000
RODDING TOOLS
REEL YOKE ASSEMBLY

Both Continuous & Sectional
WHERE RODDERS EXCEL

Long Lines

Fuel Conservation
While operating
No dumping – no refills

Large Hills
Don’t blow toilets

Extreme Blockages
Extreme Cold

Situations where adding more water to the problem is not feasible

Water Conservation – no refills

WHERE RODDERS EXCEL
WHERE RODDERS EXCEL

Dislodging stuck Cameras/Tractors, lining packers, etc
BUCKET MACHINES
PULL IN UNIT
TRUCK LOADER
Water Conservation – Difficult Refill Areas

Extreme Blockages – Neglect

Extreme Blockages – Flooding

Difficult Dumping Situations

Large Lines with High Water Levels

Contaminated / Haz-Mat lines

Fuel Savings – operating and dumping

WHERE BUCKET MACHINES EXCEL
BUCKET MACHINE TOOLS
SL-RAT

SL-RAT
Sewer Line Rapid Assessment Tool

Transmitter
"Yells"

Receiver
"Listens"

Blockage
FAVORITE TOOL – THE TELEPHONE
JIGAWON
Thank You!

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