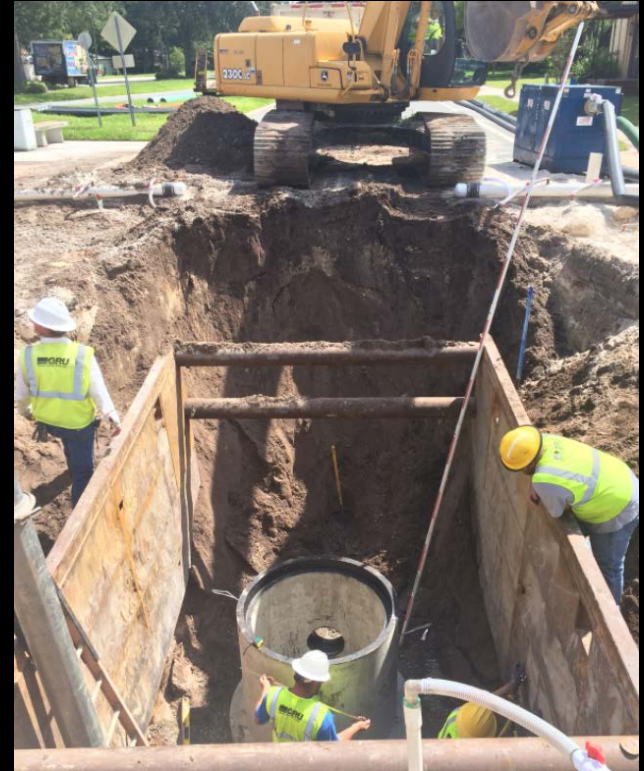


# GRU's Wastewater Collection System



January 19, 2017

Item #160660

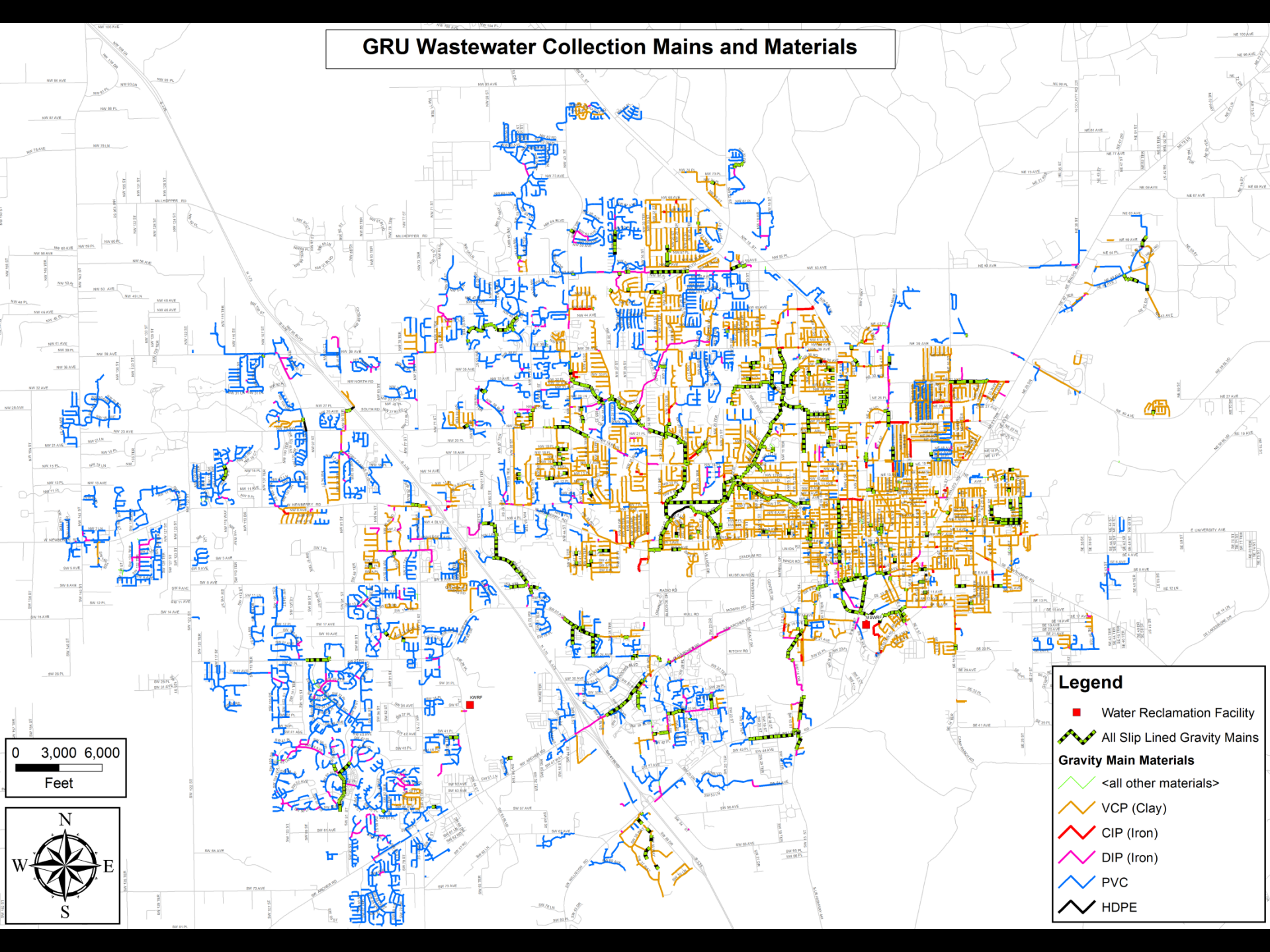
# GRU's Wastewater Collection System

- 64,000 customers
- 780 miles of pipe
  - 30% is >50 yrs old
  - 300 miles Clay
  - 56 miles Iron
- 15,300 manholes
- 168 lift stations



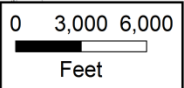


# GRU Wastewater Collection Mains and Materials



**Legend**

- Water Reclamation Facility
- All Slip Lined Gravity Mains
- Gravity Main Materials**
- <all other materials>
- VCP (Clay)
- CIP (Iron)
- DIP (Iron)
- PVC
- HDPE



# FDEP Notification Rule: Sept 26 – Dec 30



- Reaction to significant pollution events
- Encompassed all pollution activities, regardless of size and impact
- Resulted in good discussions on SSO prevention
- Invalidated Dec 30

# Sanitary Sewer Overflows

- Common to all utilities – expect additional action in next legislative session
- Causes
  - Blockages
    - Fats, Oils and Grease (FOG)
    - Non Flushables
  - Aging Infrastructure
  - Weather
- Reporting – all incidents
  - ACEPD, ACHD, FDEP





# SSO Response - 24/7/365

- Response Priorities
  - Public health & safety
  - Environment
  - Property damage
  - Service
- Response Techniques
  - Containment
  - Vacuum removal
  - Disinfection
  - Signage
  - Sampling



# Emergency Rule Reporting

Sept. 26 – Dec. 25, 2016

- Approx 750 Reports
  - Approx 562 SSOs
  - Range: 1 gal to >5 Mgal
- GRU – 12 Reports
  - 9 SSOs, residential FOG and toiletries
  - 1 SSO, aging infrastructure
  - 2 Biosolids, malfunctioning valve

GRU is committed to minimize the frequency and impact of SSOs in our system.



# SSO Prevention

- Collection System Maintenance
  - CCTV Inspection
  - Jetting & Cleaning
  - Lift Station SCADA
  - 24/7/365 Coverage
- Repair & Replacement
  - Replacement or Lining of Pipe & Manholes
  - Lift Station Maintenance

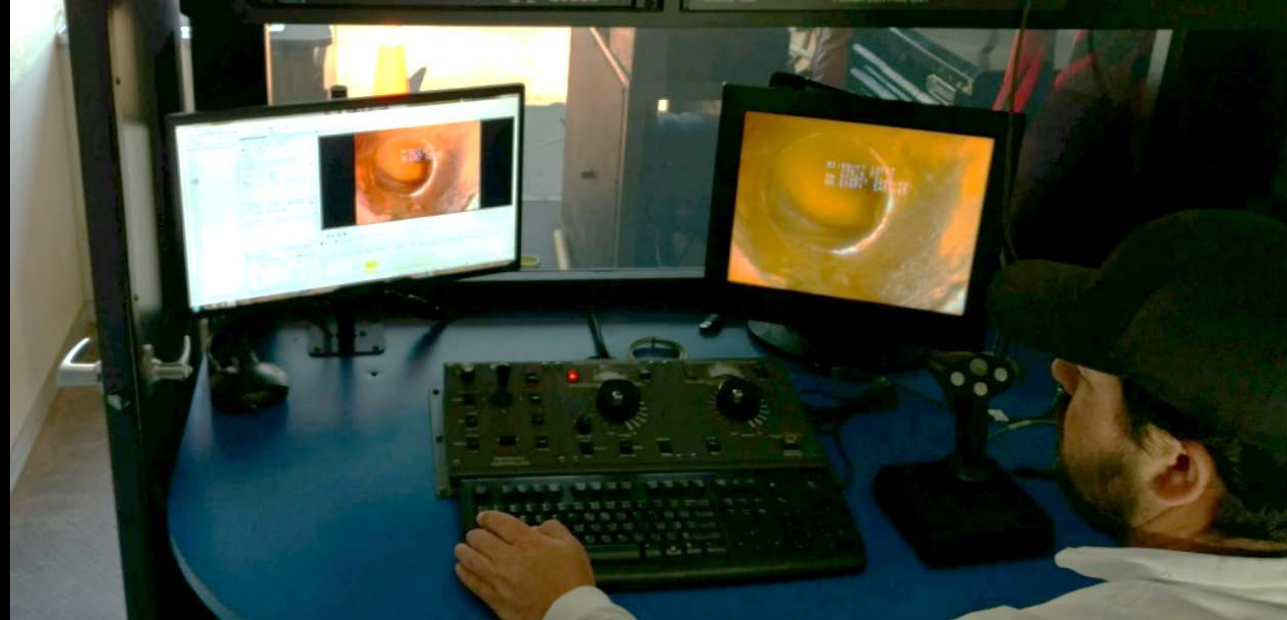


# SSO Prevention

- Design Standards for New Facilities
- Inspection of New Facilities
- Customer Education
  - Commercial FOG
  - Residential FOG & Non Flushables
- Storm Response Plan



# CCTV for Pipe Line Inspection







**Tuberculation Removed with Hydraulic Chain Cutter**



# Slip Lining





# Manhole Rehab: Before and After

FY 2016 Program KO – 315 MHs

FY 2017 YTD – 183 MHs





# GRU's Wastewater Collection System

Activity	Monthly Est	Annual Avg
Main Line Stoppages	6	72
Service Stoppages	56	672
CCTV	38,000 LF	456,000 LF
Cleaning	43,300 LF	519,600 LF

- Slip lined to date – 43.9 miles
- Est \$4M/yr for WWCS Capital
- \$516,500 (CY 2016) for pipe inspection, cleaning & stoppages

# GRU's Commercial FOG Program

- GRU Ordinance & Design Standards
  - Environmental Programs Coordinator
  - 2 TSS III Inspectors

Grease Traps:	In Ground	Under Sink	Total
Food Service Establishments	436	160	596

This is a **combined** effort. **GRU** has a big part and our **customers** have a big part.



## Tony Cunningham and Jennifer McElroy: Think before you flush

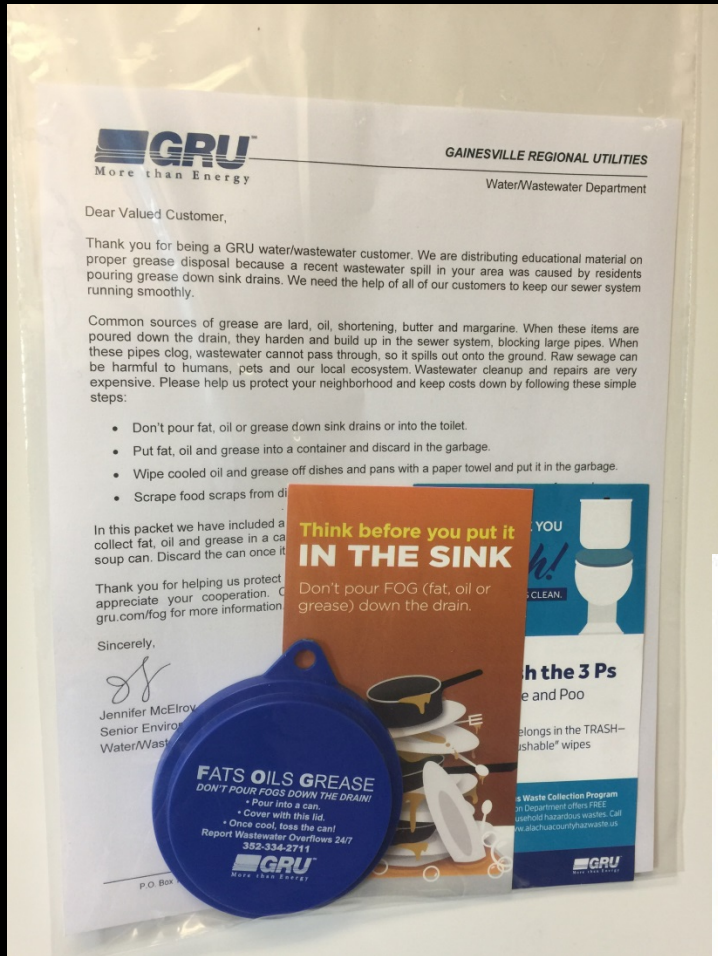
Friday

Posted Jan 6, 2017 at 2:00 AM

By Tony Cunningham and Jennifer McElroy Special to The Sun



# Residential Outreach



**Only flush the 3 Ps**  
Paper, Pee and Poo

EVERYTHING else belongs in the TRASH—  
including “flushable” wipes

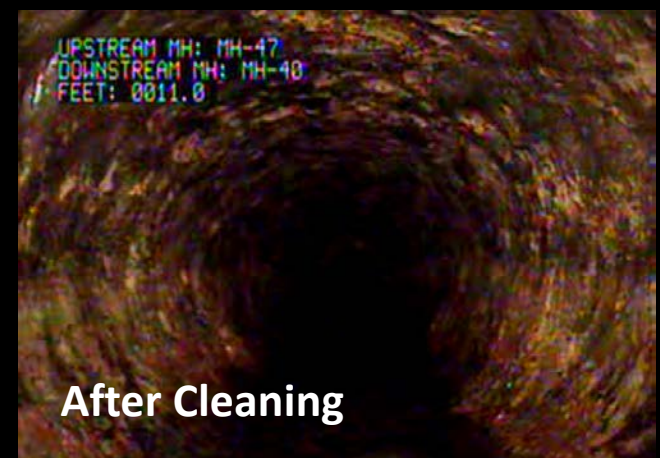


**Waste Collection Program**  
Department offers FREE household hazardous wastes. Call [alachuacountyhazwaste.us](http://alachuacountyhazwaste.us)



# Path Forward

- Continue System R&R
  - Additional contractor work
- System Assessments
  - Inflow and Infiltration
  - SSO Sensitivity Study
- Prioritization of CIPs
- Resiliency Evaluation



Together, **we can** reduce SSOs.

# Recommendation for SSO Reporting Threshold to Commission/UAB

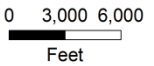
- Use established State Watch Office threshold per 62-620, FAC
- Include City Commission and UAB on FDEP written reports when:
  - 1,000 gal or larger
  - Enters waterbody
  - Impact to public health & safety









# Additional Slides

# GRU Wastewater Collection Facilities

NOTE: LOCATIONS AND DIMENSIONS ARE GIVEN FOR UTILITIES STAFF USE ONLY. ENGINEER/CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION



## Legend

-  WW Treatment Plant
-  Force Main
-  Lift Station
-  Gravity Main
-  Plant Divider
-  City Limits

NOTE: If shown, the "Plant Divider" layer illustrates the approximate dividing line between flow that goes west to the Kanapaha WRF and flow that goes east to the Main Street WRF.



PLOTTED: 1/10/17 BY C.A.G.  
D:\ARC\DATA\WWW\COLLECTION FACILITIES 30X24 POWERPOINT.MXD

