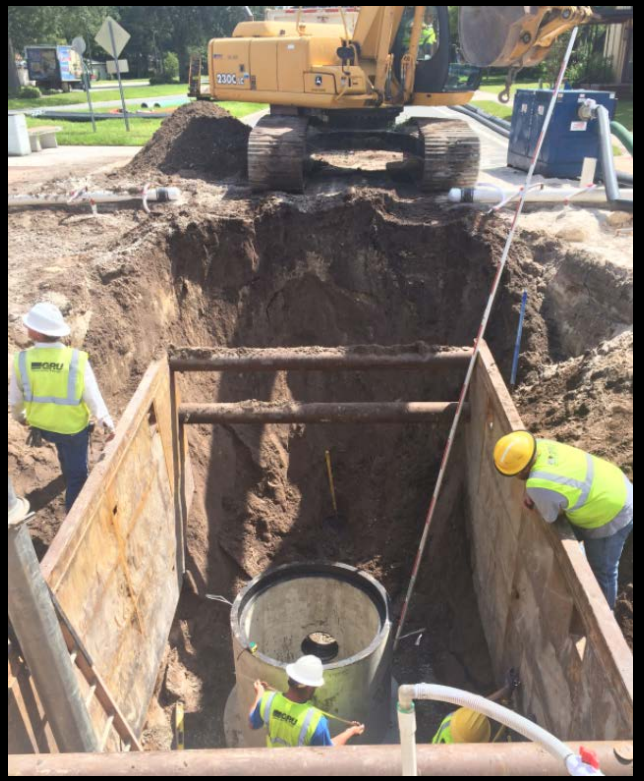
GRU's Wastewater Collection System



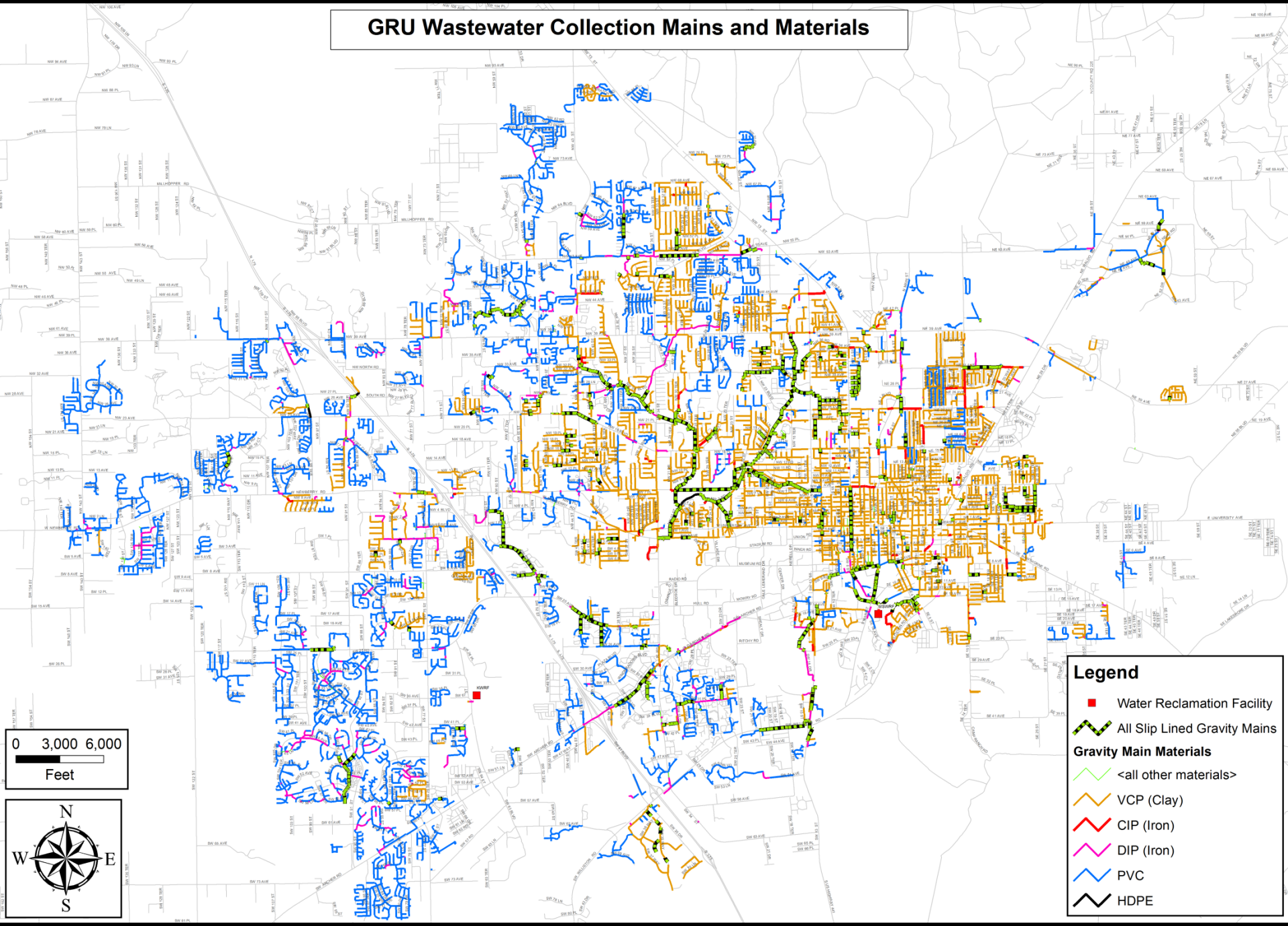
January 18, 2017

Item #160672

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



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.

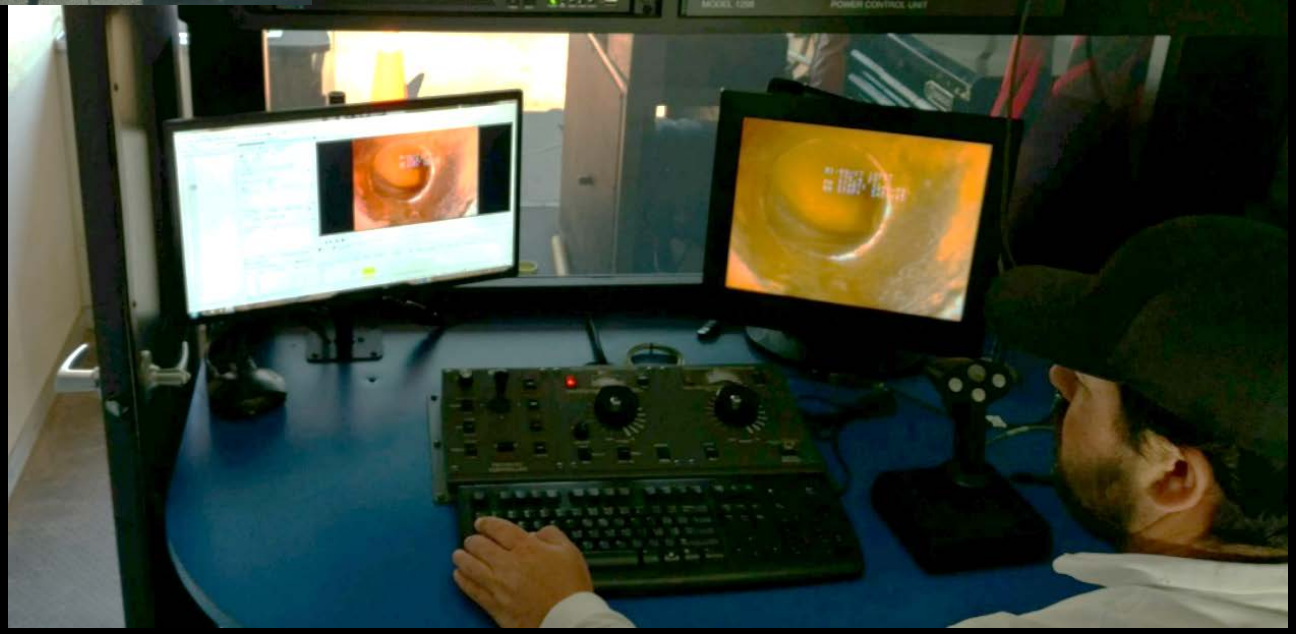
SSO Prevention

- 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

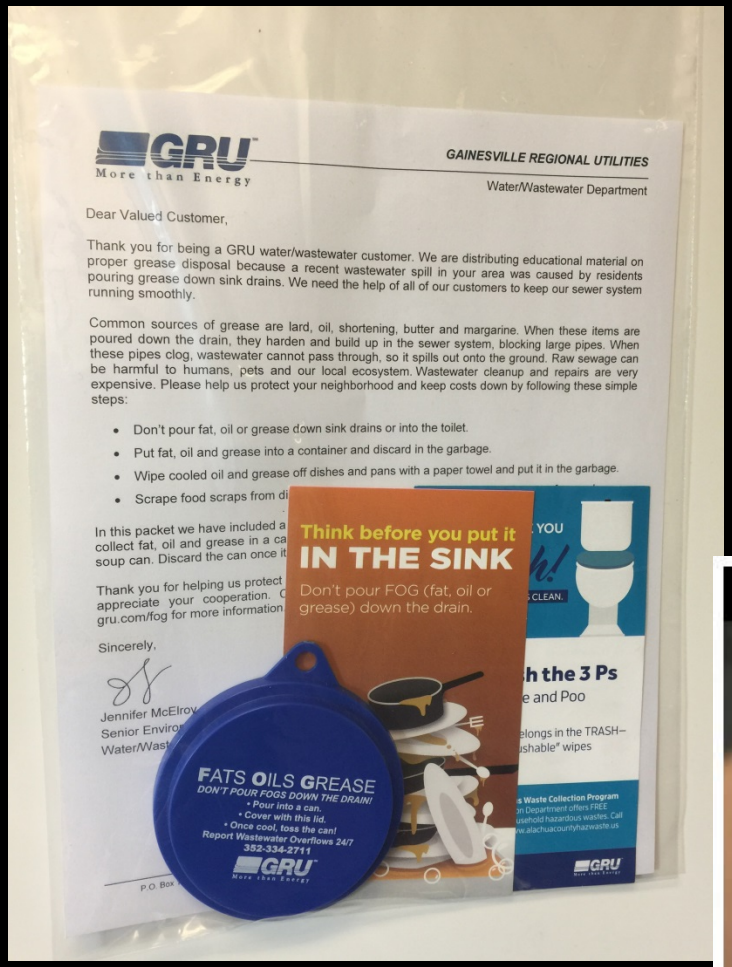
GRU's Commercial FOG Program

- 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.

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
ehold hazardous wastes. Call
.alachuacountyhazwaste.us

GRU
More than Energy

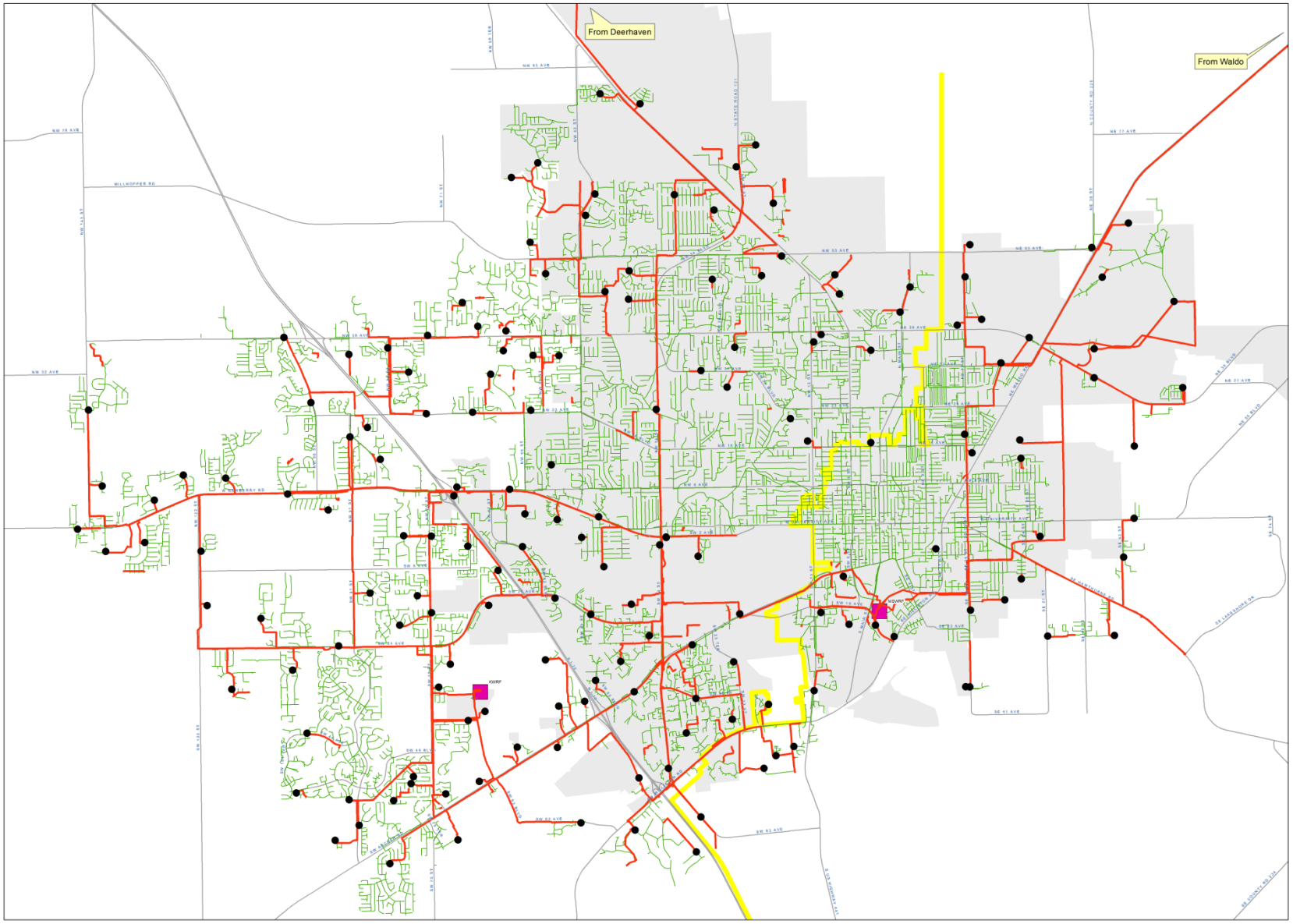
Path Forward

- 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.

Additional Slides

GRU Wastewater Collection Facilities



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

0 3,000 6,000
Feet

N
W E
S

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.

GRU More than Energy

PLOTTED: 1/9/2017 BY C.A.O.
D:\ARCDATA\WW\WW COLLECTION FACILITIES 36X24 POWERPOINT.MXD