

City of Pensacola ECUA Presentation

BRUCE WOODY, P.E.

MAY 23, 2022



Presentation Outline

- ▶ Background
 - ▶ What Rehabilitation ECUA has already done
 - ▶ What we are working on now
- ▶ Investigation - Joint ECUA and City of Pensacola
 - ▶ Potential Sources
 - ▶ Four part plan
 - ▶ Timeline
- ▶ Questions



Background - Work on rehabilitating the system

- ECUA regularly tests its sewer system by smoke testing and video inspection. Ongoing effort since inception; frequency has greatly increased in last 10 years.
- ECUA has a consent order based on SSOs that started in 2012 – As part of that consent order ECUA was required to investigate the system and prioritize rehabilitation efforts
- Most of the prioritized areas are in the downtown area.
- Since starting the program in 2012, ECUA has spent approximately \$76 million on sewer rehab – About 25 million has been spent in the downtown area



Background

- Yellow shading shows the storm water basin boundary
- Green lines are ECUA gravity sewer lines
- The majority of the gravity sewer lines have been rehabilitated/ lined, some of the services have been lined up to the property line.
- Some of the stormwater in this basin goes to Bruce Beach and some to the east of Maritime Park

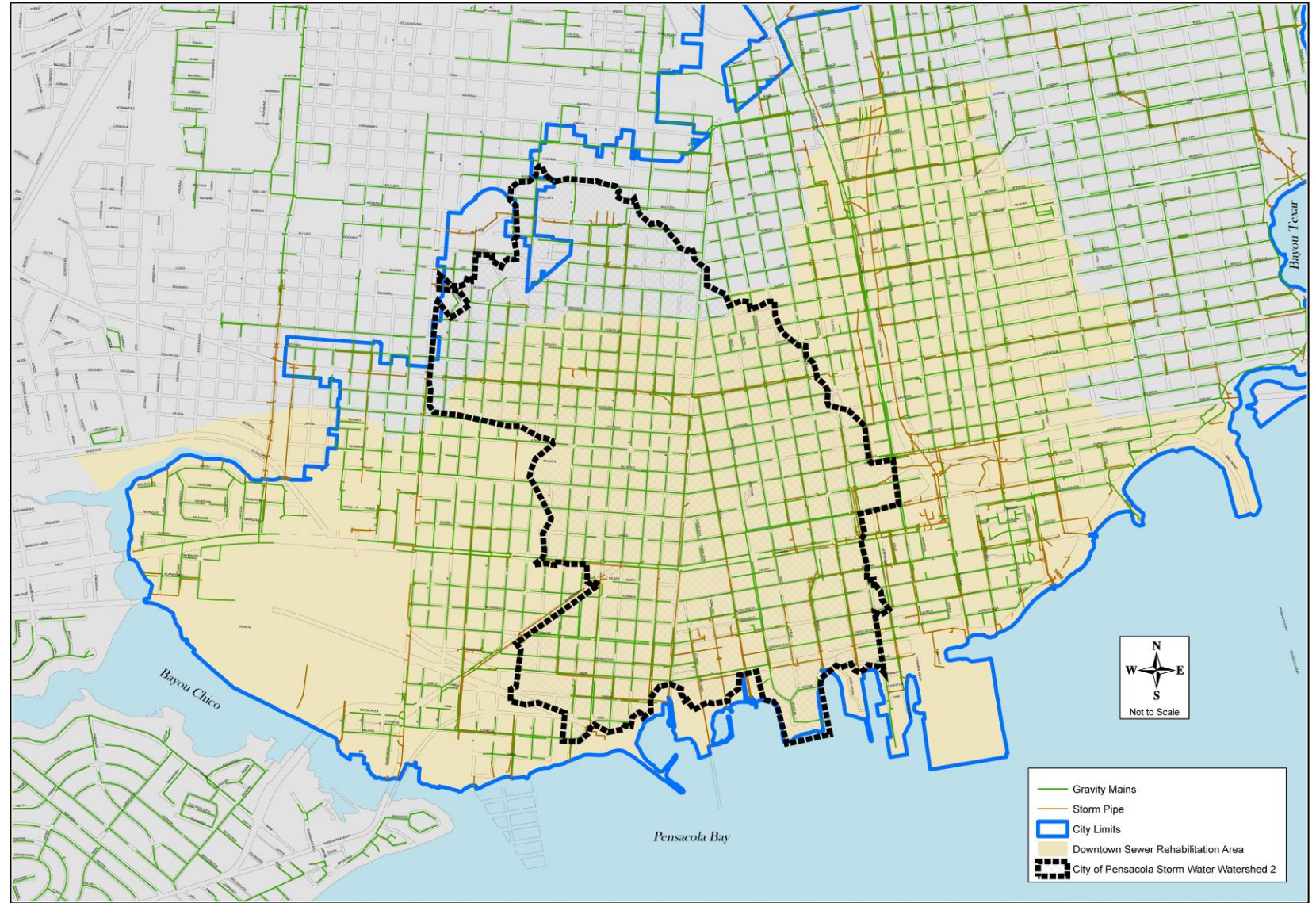


DOWNTOWN PENSACOLA SEWER REHABILITATION

TAN SHADED AREA IS
THE MAIN
REHABILITATION
FOCUS AREA.

REHABILITATION
WORK CONSISTS OF:

- REPLACEMENT OF LAMPHOLES
- POINT REPAIRS
- LINE SEWER MAINS
- INSTALL CLEANOUTS ON SERVICE LATERALS
- LINE SERVICE LATERALS WITHIN RIGHTS OF WAYS
- MANHOLE REHABILITATION

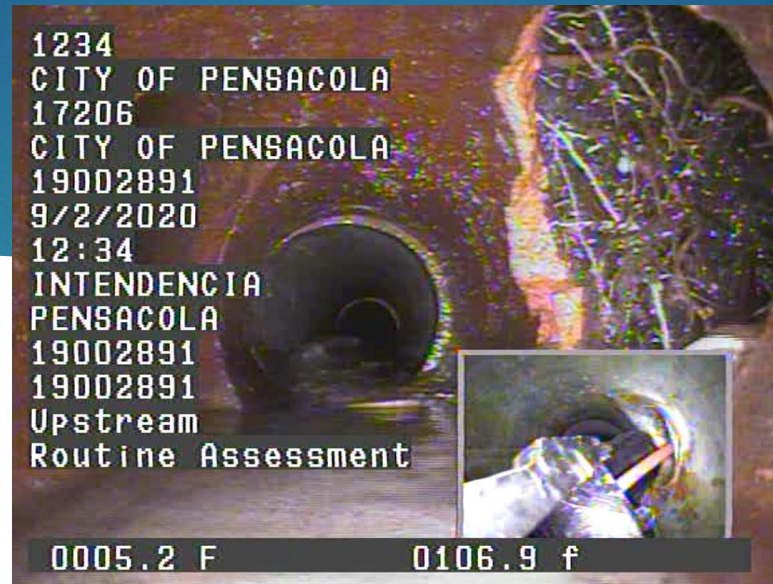


EMERALD COAST UTILITIES AUTHORITY

Downtown Sewer Rehabilitation - May 2022

Background

- Sanitary sewer system is not entirely owned by ECUA
- Approximately 30 percent of the gravity collection system is privately owned
- Private laterals can be a source of infiltration into the sanitary system as well as exfiltration out of the sanitary system.



Background

What are we doing now?

- Video inspecting private sewer laterals – Slow process
- Notifying property owners when we find something wrong
- Continuing rehabilitation of main lines, laterals and manholes
- Ongoing discussions with City and County Staff about a private lateral program



Investigation

Potential Sources:

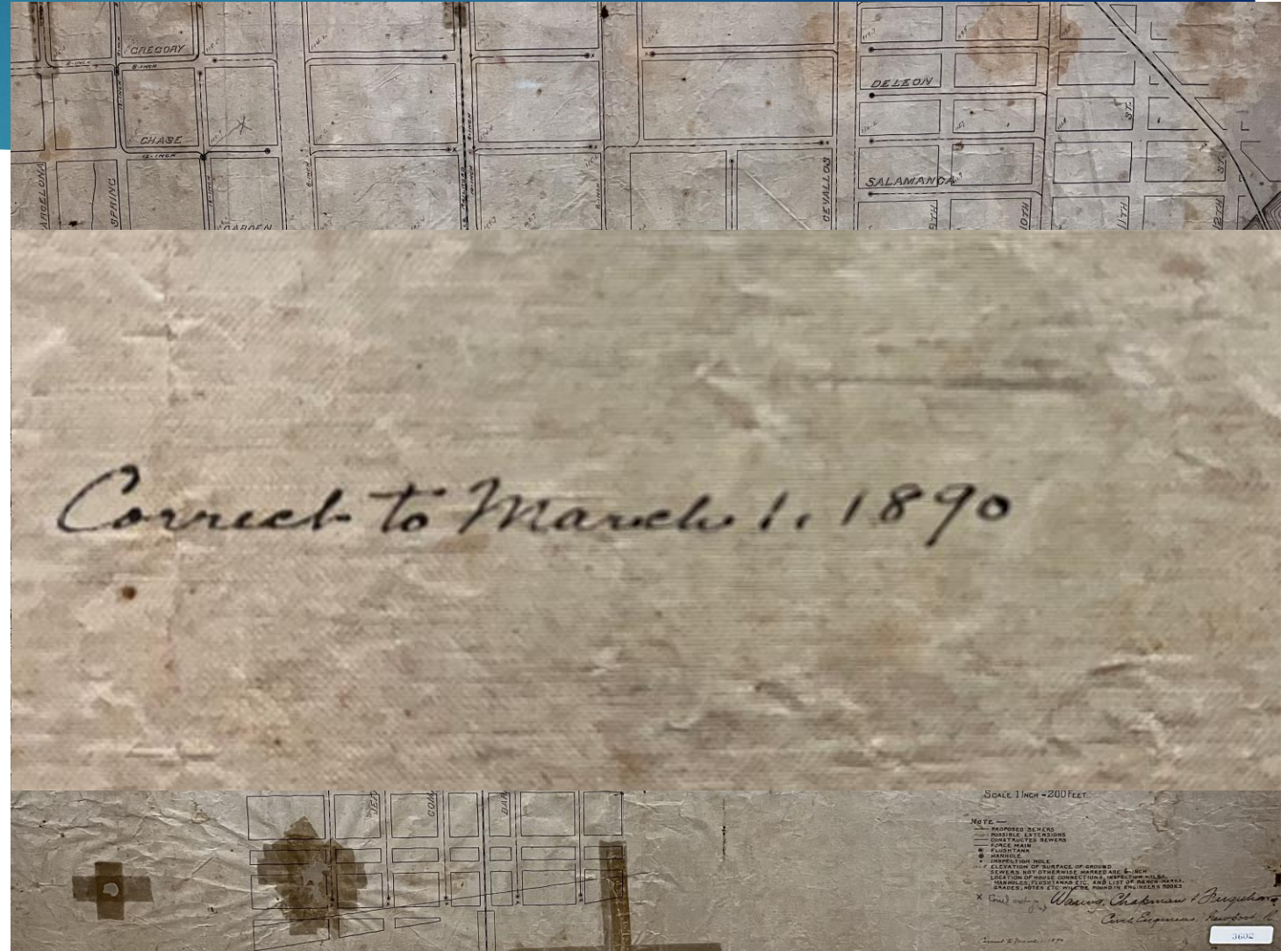
- Damaged ECUA facilities leaking near stormwater system
- Direct connection from sanitary to stormwater system
- Private sewer laterals leaking into storm system
- Wildlife contamination
- Septic tanks – None known in the area – but possible
- Homeless population



Investigation

Challenges:

- Old system
- Storm system is generally submerged/ tidally influenced in this area
- Flow from interconnect(s) could be intermittent
- Bacteria can grow in environment
- Rehabilitation is time-consuming and expensive



Investigation

Plan for investigation:

- Dye testing
- Detergent testing
- Fecal testing
- Inspections
 - City – stormwater system
 - ECUA – sanitary system



Dye Testing

Dye Testing:

- Put dye in bathrooms and check the sewer system and storm system for dye
- Buildings planned:
 - City Hall
 - Chappie James
 - Judicial Center
- City will monitor storm drains
- ECUA will monitor sanitary lines



Detergent and Fecal Testing

Detergent and fecal testing:

- Indicator test used to determine presence of detergent
- Test done on storm system
- It will give a yes or no with relative strength
- Could miss if discharge is intermittent
- Very fast to do – results on site in minutes
- Inexpensive to run – Cost is in time and labor
- Testing can move quickly upstream
- Intent is to determine area for further investigation
- Fecal sampling may be done at same time
 - Positive fecal but no detergent would indicate environmental source of fecal but not definitive
- City will provide manhole access and traffic control and ECUA will do testing



Inspections

ECUA will inspect its system.

- ECUA has ongoing video inspection program approximately 250,000 feet per year
- ECUA will target inspection in areas of concern

City will inspect its storm system.

- System in the south downtown area is generally submerged making video inspection very difficult
- Inspect outfalls and junction boxes for connections



Timeline

Overall timeline is dependent on findings in initial phase:

- Timing for planning is immediate – City and ECUA staff have already met and will continue to meet weekly to work out details.
- We are reviewing locations for inserting dye and monitoring locations and should start within a month. Timing of tides to ensure outgoing tide will be coordinated with testing.
- After completing dye testing, detergent and fecal testing will start. Locations and staffing are still to be determined but a plan for this should be complete within a month. Once started it should move quickly.



Questions

Questions ?

