



DPW Collection System

2024 Budget Request: *Collection System Operator #2*

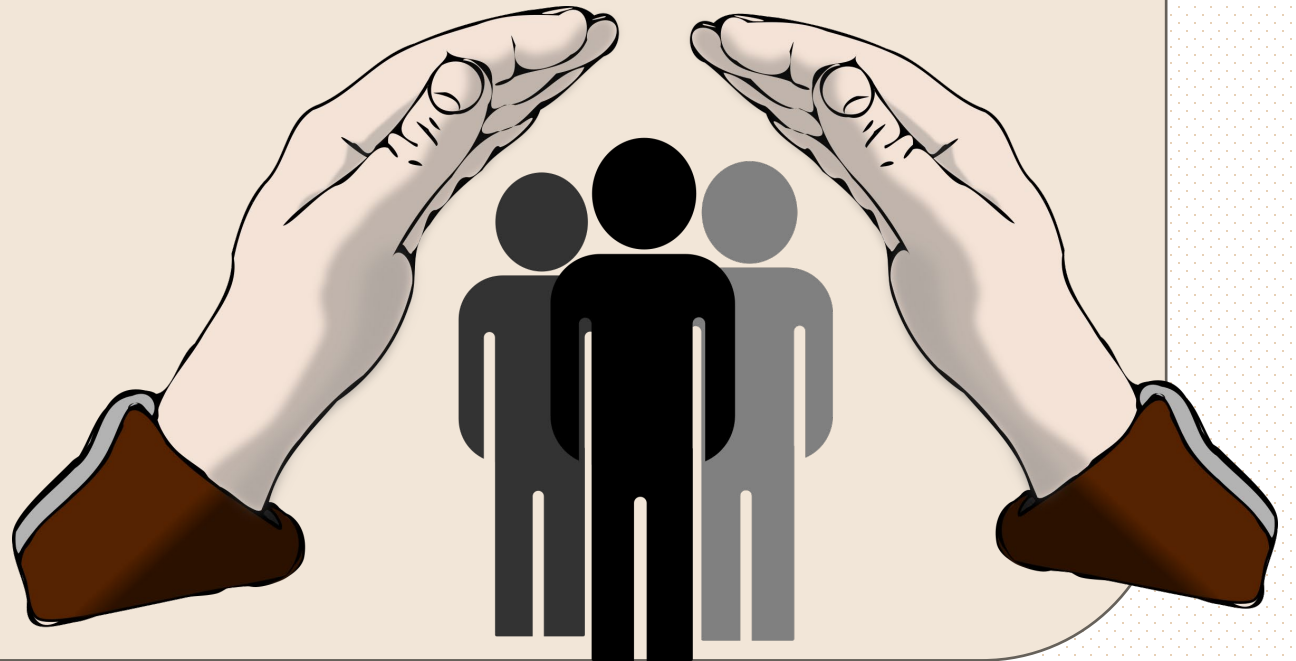
Tom Bergeron – DPW Superintendent

Kyle Bessette – Lead Collection System Operator

Rebekah Novak – RCAP Solutions

Our mission is to improve:

- **Service** for our customers
- **Safety** of our staff
- **Environmental** health (CT River)
- **Status** with MassDEP and EPA
- **Overall** system condition
 - Including the Clean Water Facility

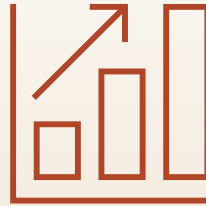


Collection System Goals



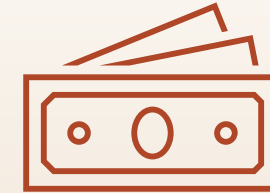
Proactive Maintenance

- Jet-cleaning
- CCTV
 - Identifies issues BEFORE a major problem
- Repairs
 - Research
 - Bids
 - Scheduling
 - *NON-Emergency



Increase Capacity

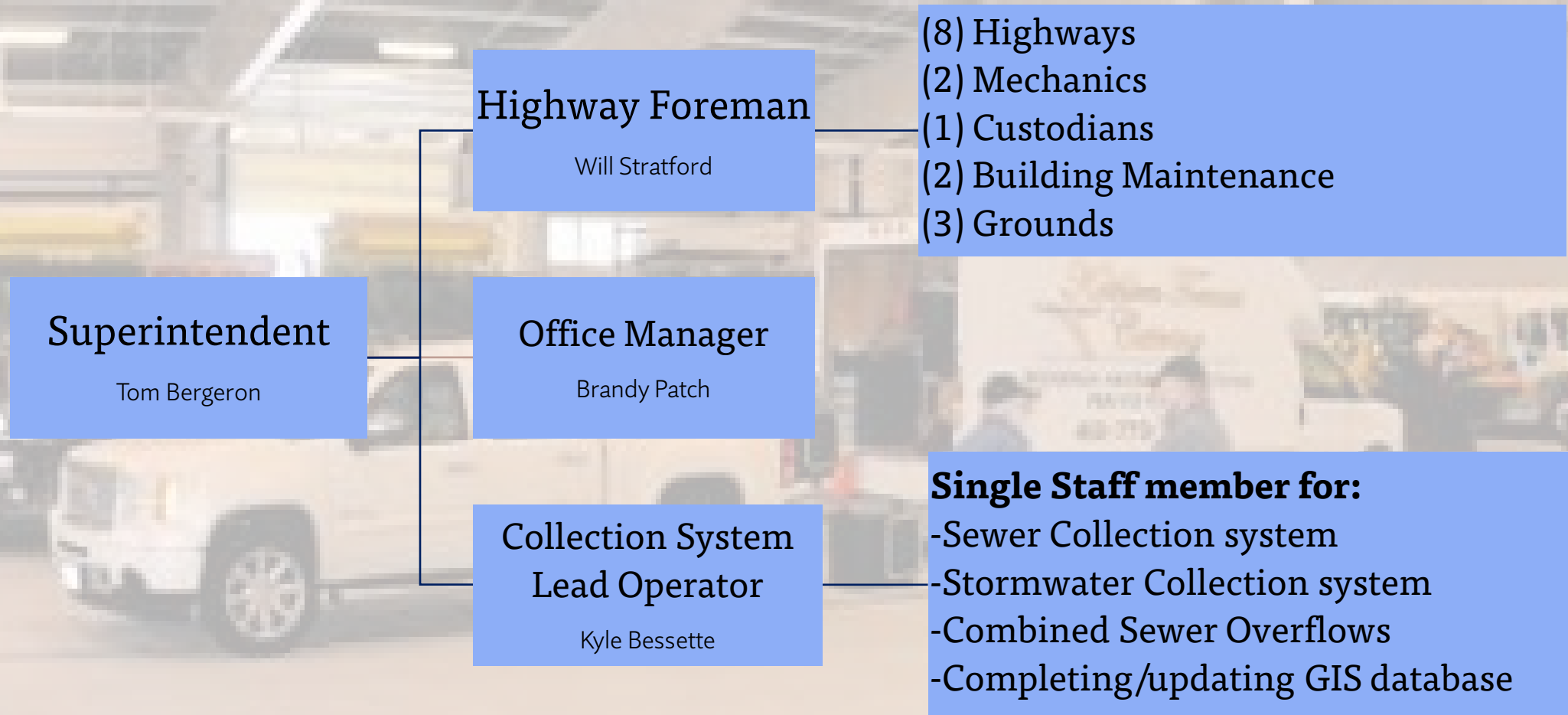
- Reduce inflow
 - Roof leaders, sump pumps
- Reduce infiltration
 - Groundwater & stormwater
- Remove dirt/grit/debris
 - Sewer pipes
 - Stormwater pipes
 - *catch basins
- Avenue A buffer line
- *Protects the CWF
- Reduces CSO events and volumes



Avoid Extra Costs:

- Reactive Maintenance
 - Overtime
 - Emergency pricing
 - Skips procurement
- Administrative
 - Consent Order
 - Notice of Noncompliance
 - Outsourced Engineering
- Erving sewer bill

The DPW Team



**CWF: Clean Water Facility*
**CSO: Combined Sewer Overflow*
**CCTV: Closed Circuit Television*

Collection System Ongoing Tasks

Weekly Inspections:

- *CWF influent line
- *CSO Structures
- Bufferline



Storm Inspections:

- CWF influent line
- CSO Structures
- Bufferline



Annual off-road easement clearing

(background photo)

Ongoing *CCTV (camera inspection)



Ongoing dye testing and smoke testing (mitigate inflow & infiltration)



Ongoing Field investigations



= More than one person (SAFETY)



The Future in GIS

“Geographic Information System”

Creates, manages and analyzes maps and data.

Asset Management

Compiles a complete list of the system’s assets, their locations, and conditions to ensure projects are prioritized correctly.

Recordkeeping & Reporting

Collects system information in an efficient manner that can be viewed in real-time by other staff and exported into reports.

Environmental

Improves system understanding of where the environment may be impacted.

Stormwater System unknown

(Maps are almost non-existent. Large volumes of groundwater are conveyed by stormwater system.)

Safety

Reduces staff risk; minimizes driving time, manhole entry, time spent in the street.

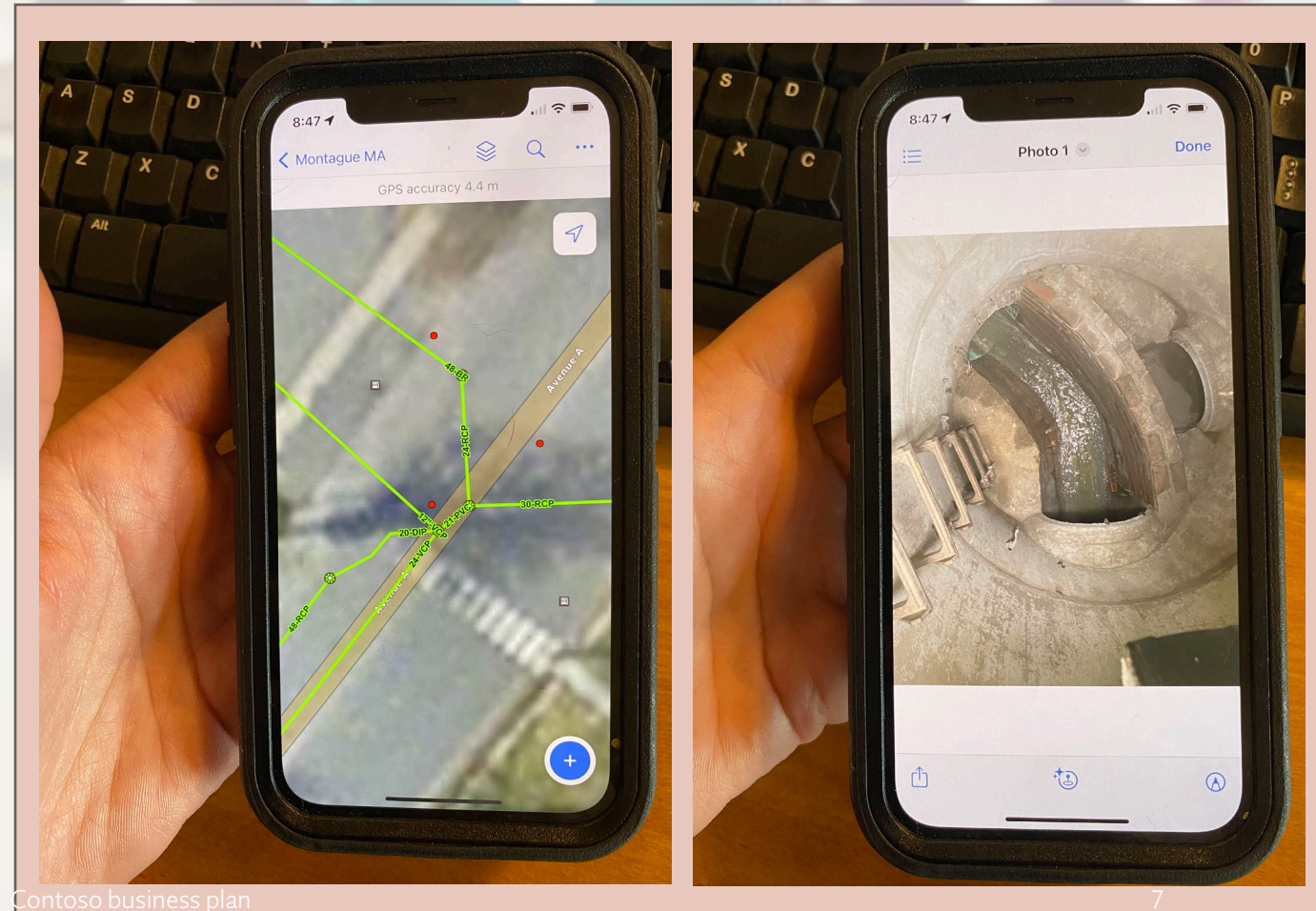
Risk Analysis for Assets

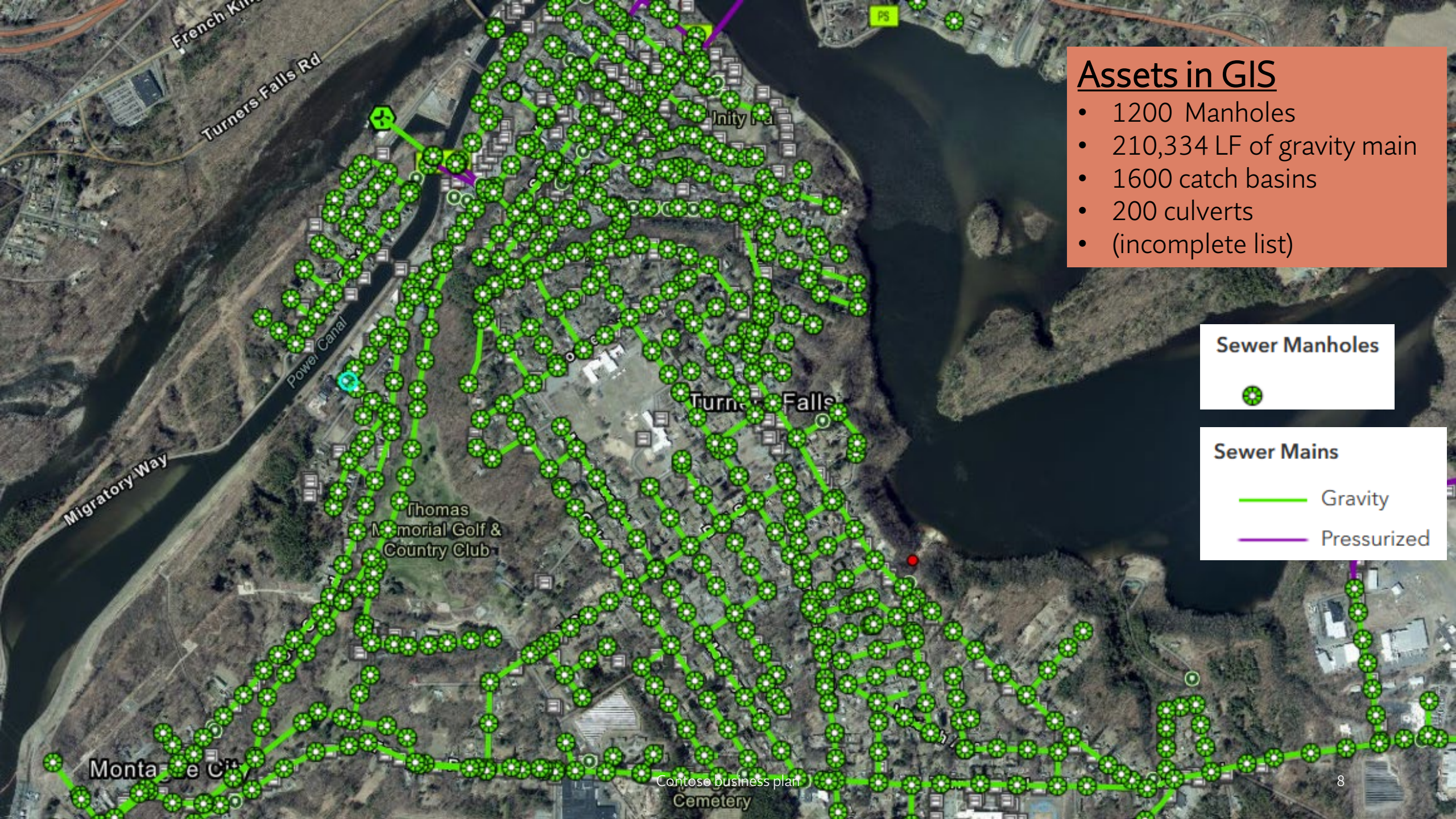
Consequence of Failure

- Social
 - Who it effects
- Economical
 - Emergency repairs (\$)
- Environmental
 - Overflows to River
 - Overflow in Street

Probability of Failure

- Age
- Material
- Current condition
- *Inspections





Assets in GIS

- 1200 Manholes
- 210,334 LF of gravity main
- 1600 catch basins
- 200 culverts
- (incomplete list)

Sewer Manholes



Sewer Mains

— Gravity

— Pressurized

Operation and Maintenance



Avenue A Bufferline
Clogged 12' manhole



Offroad Manholes
Located in GPS, marked,
easements cleared

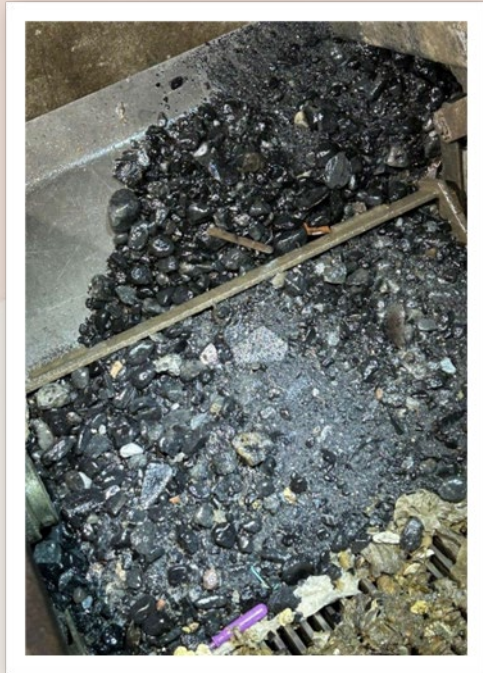


Erving Flume
Manhole pipe almost
completely blocked by
roots

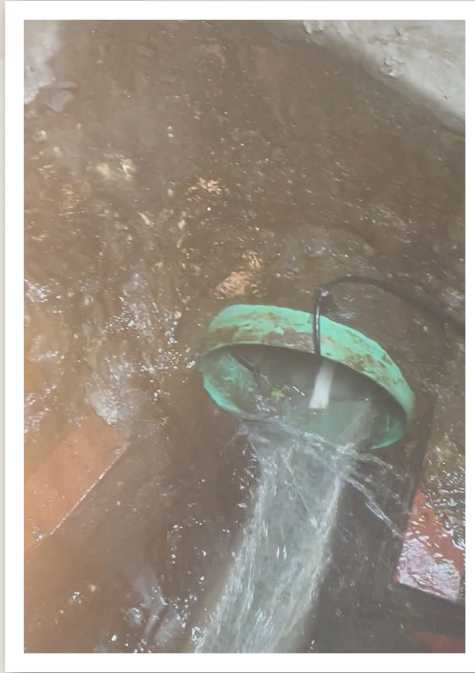


Roadside drainage
Damaged, unsafe

Recent Discoveries



CWF Bar Racks Full
Sand, gravel, rocks, bricks



7th & L
Major Infiltration



J Street Siphon inlet
Flow from unknown
source, CSO structure
found



“Dry Weather Discharge”
Initially a violation, now
just stormwater outlet

Thank you

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