

Lively Sewer Upgrades Phase II Project Update

City of Greater Sudbury Operations Committee

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Introduction & Purpose



Review Project History



Summarize Class EA Study

- Recommended Solution



Current Phase Details



Provide Next Steps

- Schedule & Budget Implications





Project History

The Lively/Walden Wastewater System:

- established in the 1950s
- gradually expanded to accommodate growth in the area





Project History

Consists of:

- approximately 65 km of sanitary sewer
- 7 pumping/lift stations (LS)
- 2 wastewater treatment plants (WWTP):
Lively and Walden



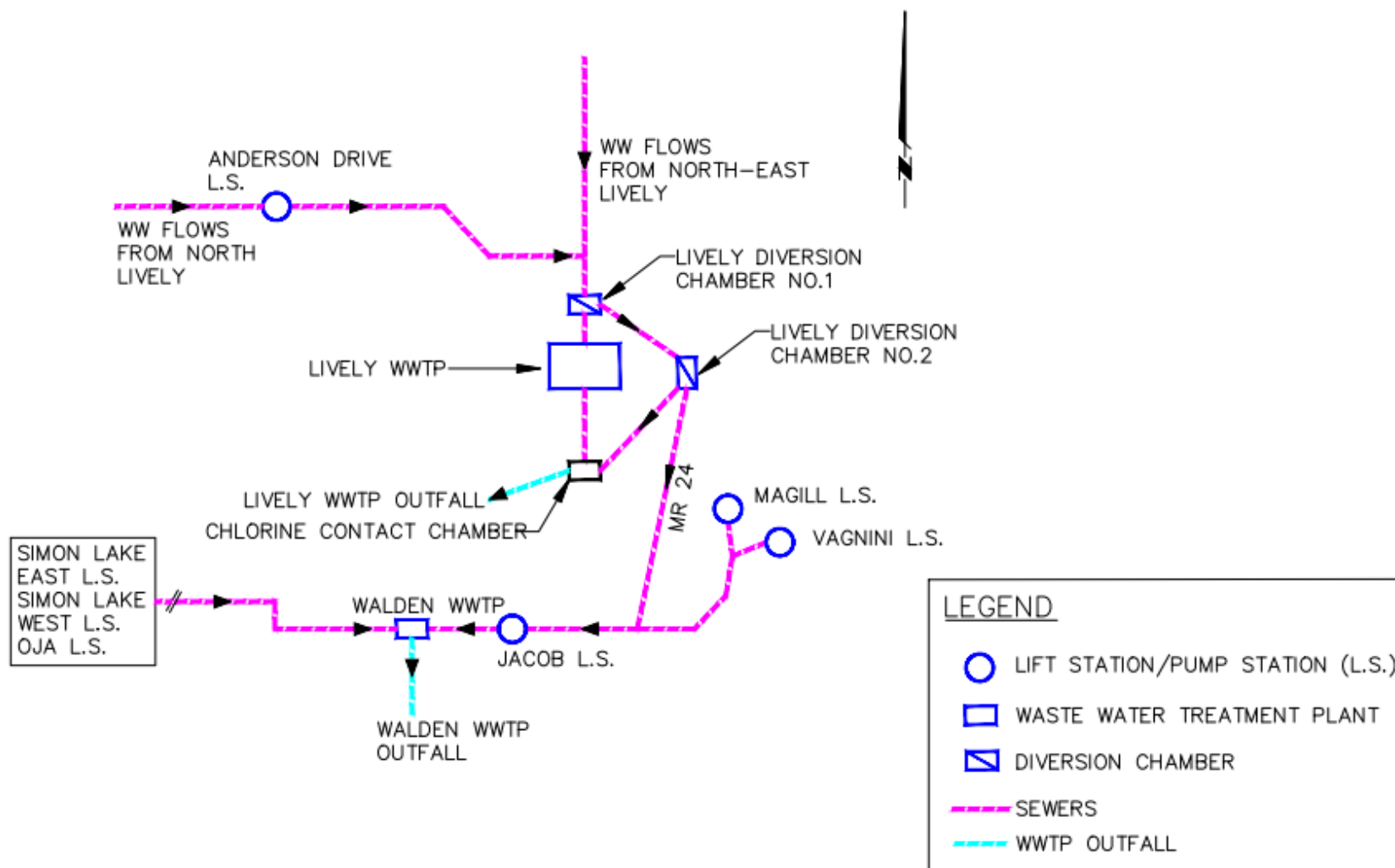
Lively WWTP



Walden WWTP



Lively/Walden Wastewater System Existing Operations (Schematic)





Project History

System Challenges/Opportunities:

- Limited capacity at the Lively WWTP
- Excess wastewater from Lively is diverted to the Walden WWTP and/or bypassed to the environment (during wet weather events)
- Wastewater generated south of Hwy 17 overpass is treated at the Walden WWTP
(includes Mikkola, Naughton, future connection from Atikameksheng Anishnawbek)





Class EA Study

2013 – Schedule ‘C’ Class EA Study was completed

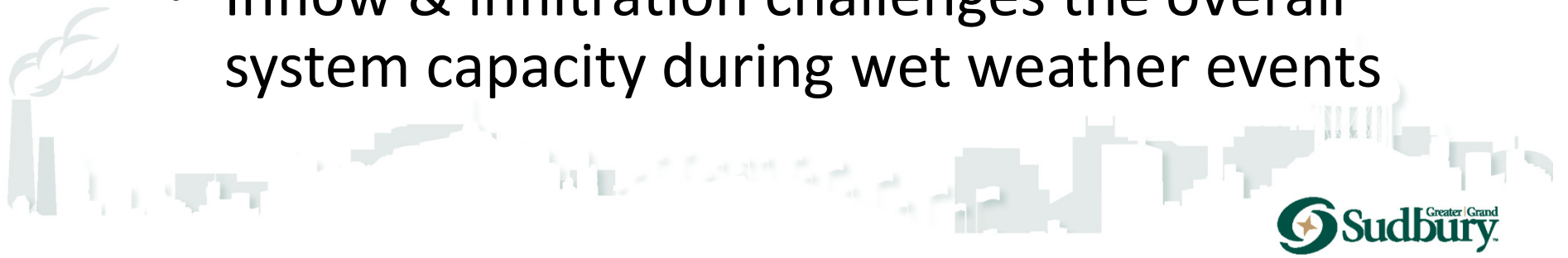




Class EA Study

Challenges included:

- Capacity issues at the Lively WWTP (short term) & Walden WWTP (long term)
- Limited additional capacity in the Lively gravity trunk sewers & the Jacob Lift Station
- Aging infrastructure throughout the system
- Inflow & infiltration challenges the overall system capacity during wet weather events





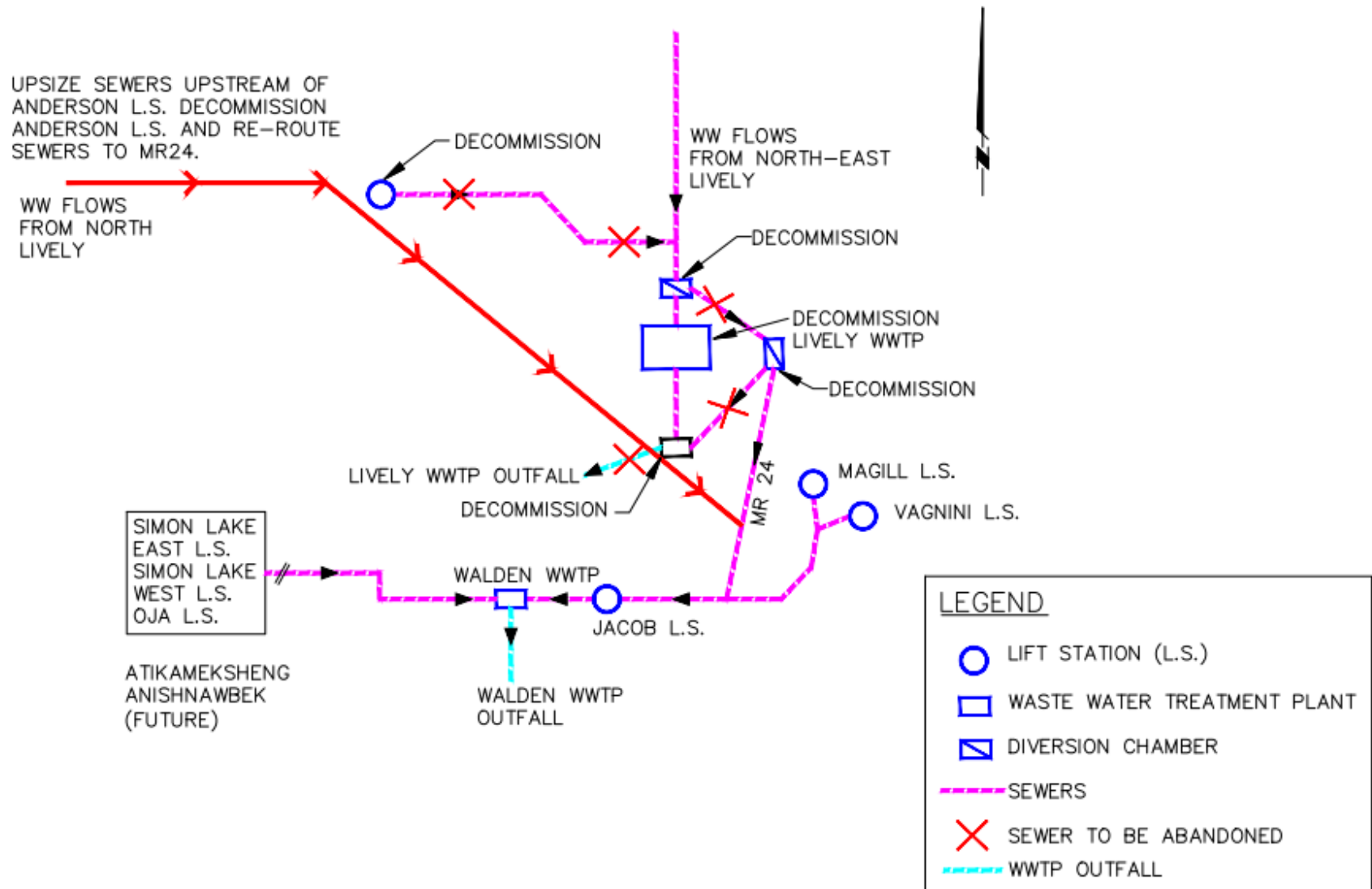
EA Study Recommendations

- Upgrade the wastewater collection system, including the Jacob Lift Station and gravity trunk sewers
- Decommission the Lively WWTP and Anderson Lift Station
- Upgrade the Walden WWTP





Lively/Walden Wastewater System Preferred Solution (Schematic)





Lively/Walden Wastewater System Preferred Solution – Phasing

RECOMMENDED PHASING	STATUS
Jacob Street Lift Station (LS) Upgrades	Complete
Design & Approvals for Walden Wastewater Treatment Plant (WWTP)	On-going
Upgrades to Collection System (Sewers):	
- Phase 1 – Jacob Street Sanitary Sewers	Complete
- Phase 2 – Lively Sanitary Sewers	*Current Phase
Expansion & Secondary Treatment Upgrades at Walden WWTP	Future Phase
Miscellaneous Lift Station Upgrades	Future Phase
Decommissioning Anderson LS & Lively WWTP	Future Phase
Install additional pump & secondary forcemain at Jacob LS	Future Phase
Inflow & Infiltration Reduction	On-going

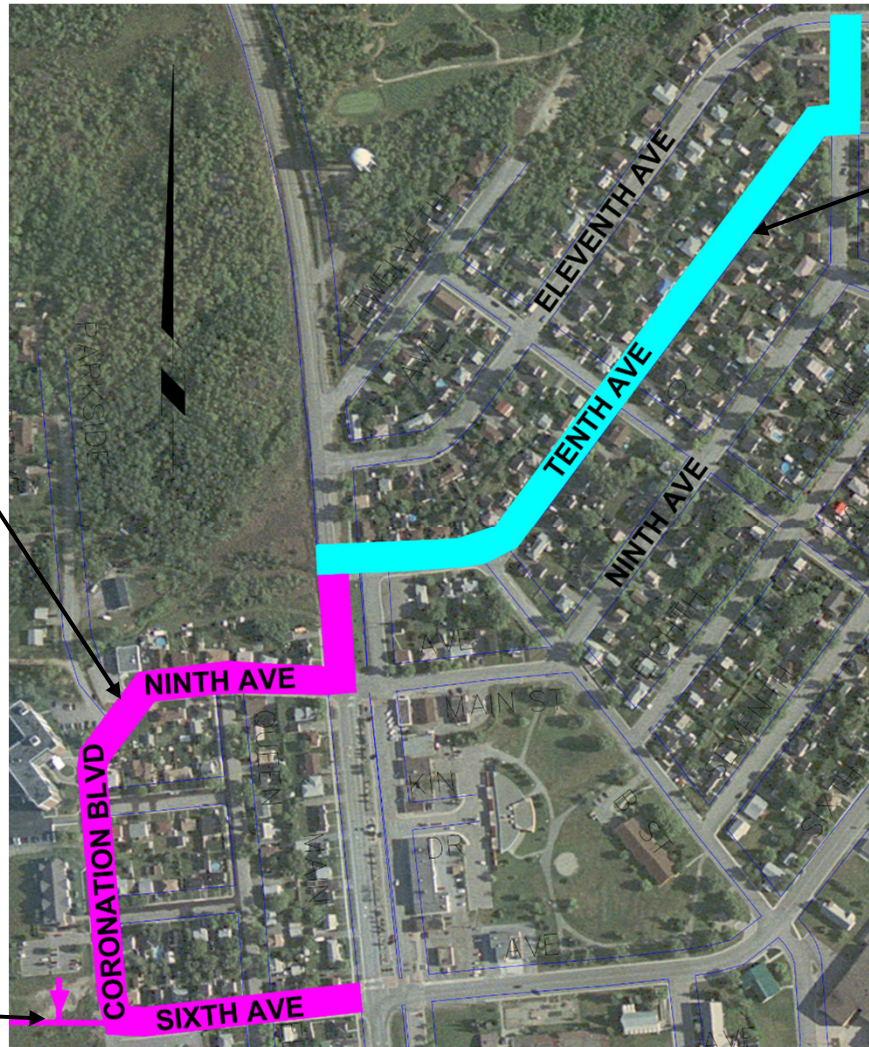




Current Phase Lively Infrastructure Upgrades

Coronation
Blvd., 9th
Ave. & 6th
Ave.:
Road,
watermain,
sanitary &
storm sewer
upgrades

10th Ave. & 9th Ave
(10th to 11th):
Road, watermain,
sanitary & storm
sewer upgrades

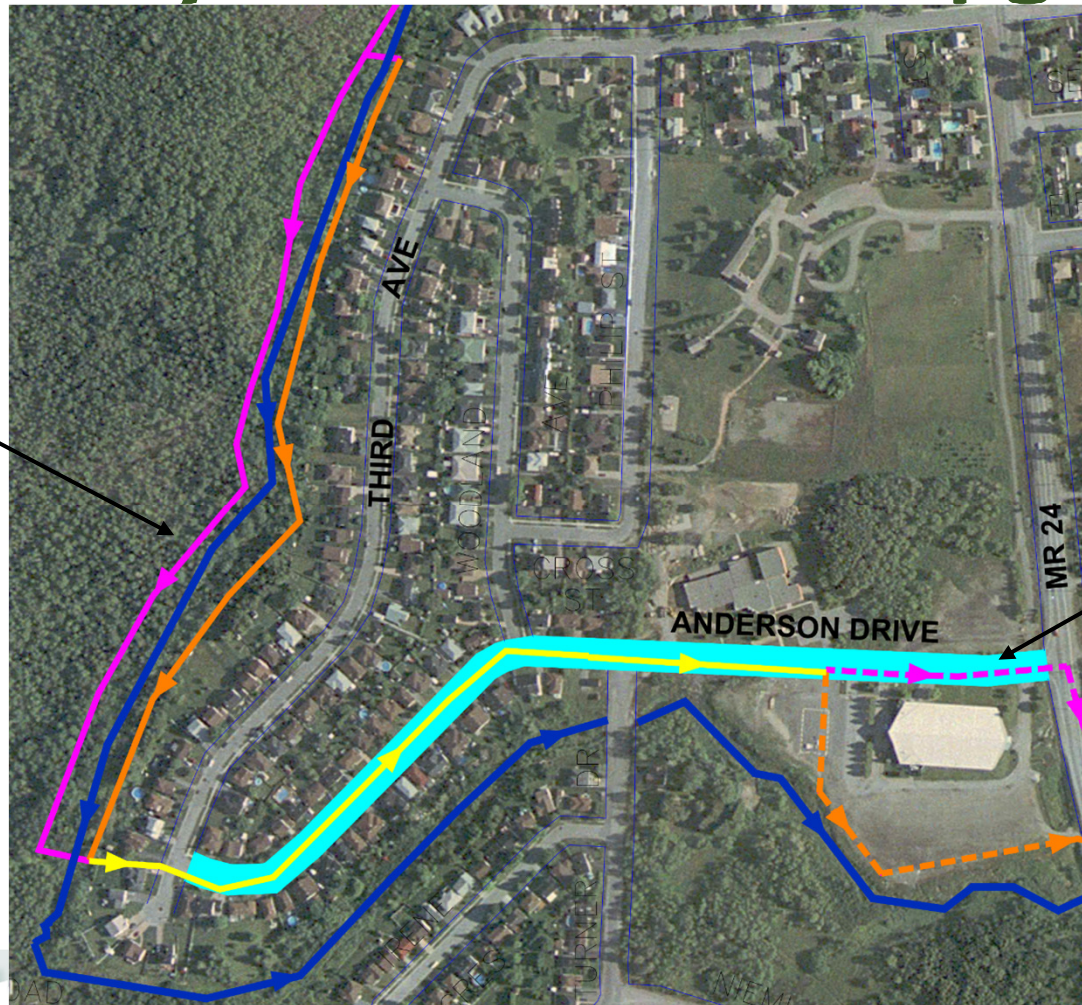


Sanitary
Sewer
Upgrades



Current Phase Lively Infrastructure Upgrades

West of 3rd
Ave.*:
Sanitary
sewer
upgrades



Legend

- Prop. Sewer
- Alt. Alignment A1
- Alt. Alignment A2
- Alt. Alignment B1
- Alt. Alignment B2
- Creek

Anderson Dr.*:
Road,
watermain,
sanitary &
storm sewer
upgrades

*Class EA Addendum: reviewing specific sewer alignments



Lively Infrastructure Upgrades Wastewater System Benefits

- Reduced number of wastewater facilities
 - Lower maintenance & operational costs
- Reduced odour & noise complaints
- Reduced infiltration in sanitary sewer system
 - Fewer / shorter duration environmental bypasses during wet weather events
 - Decreased scope / cost of Walden WWTP Upgrades





Lively Infrastructure Upgrades Additional Project Benefits

- Asset renewal and/or improvements
 - Roads, watermains, storm & sanitary sewers
- Improved capacity and reliability
 - Water distribution (domestic supply & fire flows)
 - Wastewater collection & treatment
- Improved road drainage and condition





Lively Infrastructure Upgrades Strategic Plan Alignment

- Asset Management & Service Excellence
 - Maximize the City's value from investments in physical infrastructure
 - Plan, implement & innovate in accordance with short- and long-term priorities
- Climate Change
 - Support ecological sustainability
 - Build climate resiliency into existing programs
- Economic Capacity & Investment Readiness
 - Ensure municipal capital project priorities appropriately consider economic impacts & the potential for private development





Next Steps – Project Schedule

- Fall 2019 – Detailed Design 60% Complete
- Winter 2019 – EA Addendum Complete
- Spring 2020 – Detailed Design Complete
- Summer 2020 – 2022 Construction:
 - 1) Anderson Drive
 - 2) West of Third Ave.
 - 3) Coronation Blvd., 9th Ave. & 6th Ave.
 - 4) 10th Ave. & 9th Ave. (10th to 11th)





Next Steps – Budget Implications

- Lively / Walden Wastewater System:
 - Overall Project Cost Estimate = \$27M (2013 EA)
 - Costs to Date = \$4.6M (approx.)
- Lively Infrastructure Upgrades Project:
 - Estimated Capital Cost = \$10.5M





Next Steps – Budget Implications

- Lively Infrastructure Upgrades Project
Estimated Capital Cost = \$10.5M
- Funding:
 - Future Tax levy (roads)
 - Water/wastewater reserves
 - Future water/wastewater rates
 - Development Charges
- Details to be provided in a future report





Future Asset Renewal

- Lively / Walden Wastewater System EA Recommendations address current & future capacity requirements as well as renewal of core assets on the system
- Aging infrastructure throughout the system will not be addressed by the current projects
- Future infrastructure upgrades projects in Lively / Walden will be prioritized through Risk Based Asset Management Planning & implemented through the Capital Budget Planning Process



Questions/Discussion

