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7 VOLUME 7: PREFERRED WASTEWATER SYSTEM SOLUTIONS

Upon completion of a baseline information and wastewater systems review, a gap analysis to identify existing and future wastewater system deficiencies, and an alternative solutions development and evaluation process, preferred servicing solutions were selected for the thirteen (13) wastewater systems within the CGS. [Volume 3](#) presented the existing systems and an overview of their gap analysis findings, and [Volume 5](#) outlined the alternative solutions developed to address the deficiencies identified in each wastewater system, and the evaluation undertaken to arrive at preferred servicing solutions for the systems.

The following subsections will summarize the wastewater collection and treatment servicing solutions that were selected as preferred options to address existing and future infrastructure deficiencies as well as timing for the implementation of the recommended infrastructure.

7.1 SUMMARY OF PREFERRED WASTEWATER SYSTEM SOLUTIONS

Gaps analysis, alternative solutions development, and evaluation of alternatives were undertaken for each CGS wastewater system in terms of wastewater collection, pumping, and treatment. The following subsections provide an overview of the selected preferred alternatives for wastewater collection, pumping, and treatment within the CGS.

AVERAGE DAY FLOW WASTEWATER TREATMENT RECOMMENDATIONS

Table 7-1 summarizes the recommended servicing solutions selected to address existing and future average day flow wastewater treatment deficiencies in each CGS wastewater system. Further details regarding all wastewater treatment projects can be found in Appendix 7-B.

Table 7-1 Preferred Average Day Wastewater Flow Treatment Solutions

SYSTEM	WASTEWATER TREATMENT RECOMMENDATION
Azilda	Do Nothing
Capreol	Do Nothing
Chelmsford	Maintain use of the Chelmsford WWTP, Azilda WWTP and Valley East WWTP and expand the Chelmsford WWTP.
Coniston	Do Nothing
Copper Cliff	The City is currently planning to implement infrastructure to pump wastewater flows generated in Copper Cliff into the Sudbury wastewater network.
Dowling	Do Nothing
Falconbridge	Do Nothing
Garson	Do Nothing
Onaping-Levack	Do Nothing

SYSTEM	WASTEWATER TREATMENT RECOMMENDATION
Lively	Convey all wastewater flows generated in Lively to the Walden WWTP (per the Lively/Walden ESR)
Walden	Upgrade the Walden WWTP (per the Lively/ESR). An amendment to the ESR is required to update the wastewater flow generation rates.
Sudbury	Upgrade the Sudbury WWTP. An amendment to the Sudbury ESR is required to revisit the projected wastewater flows and to re-consider the treatment options considered in the last ESR.
Valley East	Do Nothing
Wahnapitae	Do Nothing

WET WEATHER FLOW RECOMMENDATIONS

Table 7-2 summarizes the recommended servicing solutions selected to address existing and future wet weather flow wastewater treatment deficiencies in each CGS wastewater system. Further details regarding all wastewater treatment projects can be found in Appendix 7-B.

Table 7-2 Preferred Wet Weather Flow Treatment Solutions

SYSTEM	WASTEWATER TREATMENT RECOMMENDATION
Azilda	Construct Wet Weather Flow Retention at the Azilda WWTP ¹
Capreol	Do Nothing
Chelmsford	Implement an I&I Reduction Program, and Implement a new lift station on the Chelmsford WWTP site to pump Max Day/Peak Instantaneous wastewater flows to the Chelmsford lagoons during wet weather events.
Coniston	Implement an I&I Reduction Program, and Construct New I&I Retention Tanks or High Rate Treatment
Copper Cliff	Do Nothing
Dowling	Do Nothing
Falconbridge	Do Nothing
Garson	Do Nothing
Onaping-Levack	Do Nothing
Lively	Upgrade the Walden WWTP to treat all peak flow (per the Lively/Walden ESR)
Walden	Upgrade the Walden WWTP to treat all peak flow (per the Lively/Walden ESR)

SYSTEM	WASTEWATER TREATMENT RECOMMENDATION
Sudbury	Implement an I&I Reduction Program, and Construct New I&I Storm Tanks or High Rate Treatment
Valley East	Implement an I&I Reduction Program, and Construct New I&I Retention Tanks or High Rate Treatment
Wahnapitae	Do Nothing

¹ Alternative 2 per the Azilda Wastewater Plant and Collection System Class EA (R.V. Anderson 2017).

WASTEWATER COLLECTION AND PUMPING

Table 7-3 summarizes the recommended servicing solutions selected to address existing and future wastewater collection and pumping deficiencies in each CGS wastewater system. Further details regarding all wastewater treatment projects can be found in Appendix 7-B.

Table 7-3 Preferred Wastewater Collection and Pumping Solutions

SYSTEM	WASTEWATER COLLECTION RECOMMENDATION	WASTEWATER PUMPING RECOMMENDATION
Azilda	No sewer upgrades required	Upgrade Laurier, Landry and Marier LS's
Capreol	No sewer upgrades required	No LS upgrades are required
Chelmsford	No sewer upgrades required	Upgrade Belanger and Radisson LS's
Coniston	No sewer upgrades required	Upgrade Edward and Government LS's
Copper Cliff	Extend/Replace Existing Network	No LS upgrades (other than Nickel LS which is current underway)
Dowling	Extend/Replace Existing Network	No LS upgrades are required
Falconbridge	No sewer upgrades required	No LS's exist in Falconbridge
Onaping-Levack	Extend/Replace Existing Network	Upgrade Fraser LS
Lively/Walden	Extend/Replace Existing Network	Decommission Anderson LS and Upgrade Jacob LS
Sudbury/ Garson	Extend/Replace Existing Network	Upgrade Levesque, Lagace, Moonlight, Beverly, Don Lita, Fourth, Ramsey, Sherwood, Southview, York and Penman LS's Decommission Lakeview, Kincora, and Walford East LS's
Valley East	Extend/Replace Existing Network	Upgrade Helene, Jeanne D'Arc, and Spruce LS's
Wahnapitae	No sewer upgrades required	Upgrade Riverside LS

In addition to the system specific wastewater treatment, pumping, and conveyance recommendations made for the CGS wastewater systems, Appendix 7-A details the system-wide recommendations made for the CGS including studies,

programs, and monitoring efforts. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

7.1.1 AZILDA WASTEWATER SYSTEM

The following subsection details the Azilda Wastewater System recommendations and the costs associated with each project. Figure 7.1 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Azilda Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.1 Azilda Wastewater System: Recommended Servicing Solutions

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7.1.2 CAPREOL WASTEWATER SYSTEM

No sewer or lift station upgrades were recommended within the Capreol wastewater network.

7.1.3 CHELMSFORD WASTEWATER SYSTEM

The following subsection details the Chelmsford Wastewater System recommendations and the costs associated with each project. Figure 7.2 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Chelmsford Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.2 Chelmsford Wastewater System: Recommended Servicing Solutions

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7.1.4 CONISTON WASTEWATER SYSTEM

The following subsection details the Coniston Wastewater System recommendations and the costs associated with each project. Figure 7.3 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Coniston Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.3 Coniston Wastewater System: Recommended Servicing Solutions

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7.1.5 COPPER CLIFF WASTEWATER SYSTEM

The following subsections details the Copper Cliff Wastewater System recommendations and the costs associated with each project. Figure 7.4 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Copper Cliff Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Copper Cliff Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.4 Copper Cliff Wastewater System: Recommended Servicing Solutions

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7.1.6 DOWLING WASTEWATER SYSTEM

The following subsection details the Dowling Wastewater System recommendations and the costs associated with each project. Figure 7.5 shows a map containing all system recommendations.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Dowling Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.5 Dowling Wastewater System: Recommended Servicing Solutions

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7.1.7 FALCONBRIDGE WASTEWATER SYSTEM

No wastewater infrastructure upgrades were recommended within the Falconbridge wastewater conveyance network.

7.1.8 ONAPING-LEVACK WASTEWATER SYSTEM

The following subsection details the Onaping-Levack Wastewater System recommendations and the costs associated with each project. Figure 7.6 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Levack Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Levack Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.6 Onaping-Levack Wastewater System: Recommended Servicing Solutions

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7.1.9 LIVELY-WALDEN WASTEWATER SYSTEM

The following subsection details the Lively-Walden Wastewater System recommendations and the costs associated with each project. Figure 7.7 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Lively-Walden Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Lively-Walden Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.7 Lively-Walden Wastewater System: Recommended Servicing Solutions

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7.1.10 SUDBURY WASTEWATER SYSTEM (INCLUDING GARSON)

The following subsection details the Sudbury Wastewater System recommendations and the costs associated with each project. Figure 7.8 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Sudbury Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Sudbury Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.8 Sudbury Wastewater System: Recommended Servicing Solutions

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7.1.11 VALLEY EAST WASTEWATER SYSTEM

The following subsection details the Valley East Wastewater System recommendations and the costs associated with each project. Figure 7.9 shows a map containing all system recommendations.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Valley East Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

CONVEYANCE

Appendix 7-B summarizes the wastewater sewer projects recommended within the Valley East Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

Figure 7.9 Valley East Wastewater System: Recommended Servicing Solutions

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7.1.12 WAHNAPIAE WASTEWATER SYSTEM

The following subsection details the Wahnapiæ Wastewater System recommendations and the costs associated with each project.

WASTEWATER LIFT STATIONS

Appendix 7-B summarizes the wastewater lift station projects recommended within the Wahnapiæ Wastewater System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WWC referring to City funded, and WWD referring to development funded.

7.2 POLICY RECOMMENDATIONS

While undertaking the Water and Wastewater Master Plan, several gaps in the water system were identified. While the City's water design guidelines provide guidance regarding how infrastructure is to be sized and designed, they do not provide the policies by which water and wastewater services are planned. Such policies are typically included in a given municipality's Official Plan.

In consideration of some of the gaps identified in the water system as part of the Master Plan, and based on additional conversations with the City's engineering and planning staff, the following summarizes the policies recommended to be included in the next update to the City's Official Plan as well as additional best practices that can be used by the City to plan for future infrastructure.

7.2.1 OFFICIAL PLAN POLICY RECOMMENDATIONS

FINANCE

- 1 In the consideration of the expansion of capital works within the Settlement Boundary, priority shall be given to those works that will implement development which will not place a financial burden on the City. This includes prioritizing development within the Built Boundary and in accordance with the Phasing Policies of the Official Plan.
- 2 City Council may limit the type and intensity of any proposed development if, in the opinion of City Council, the provision of any municipal services and utilities would cause financial, environmental or other hardships for the City.

INFRASTRUCTURE SERVICES

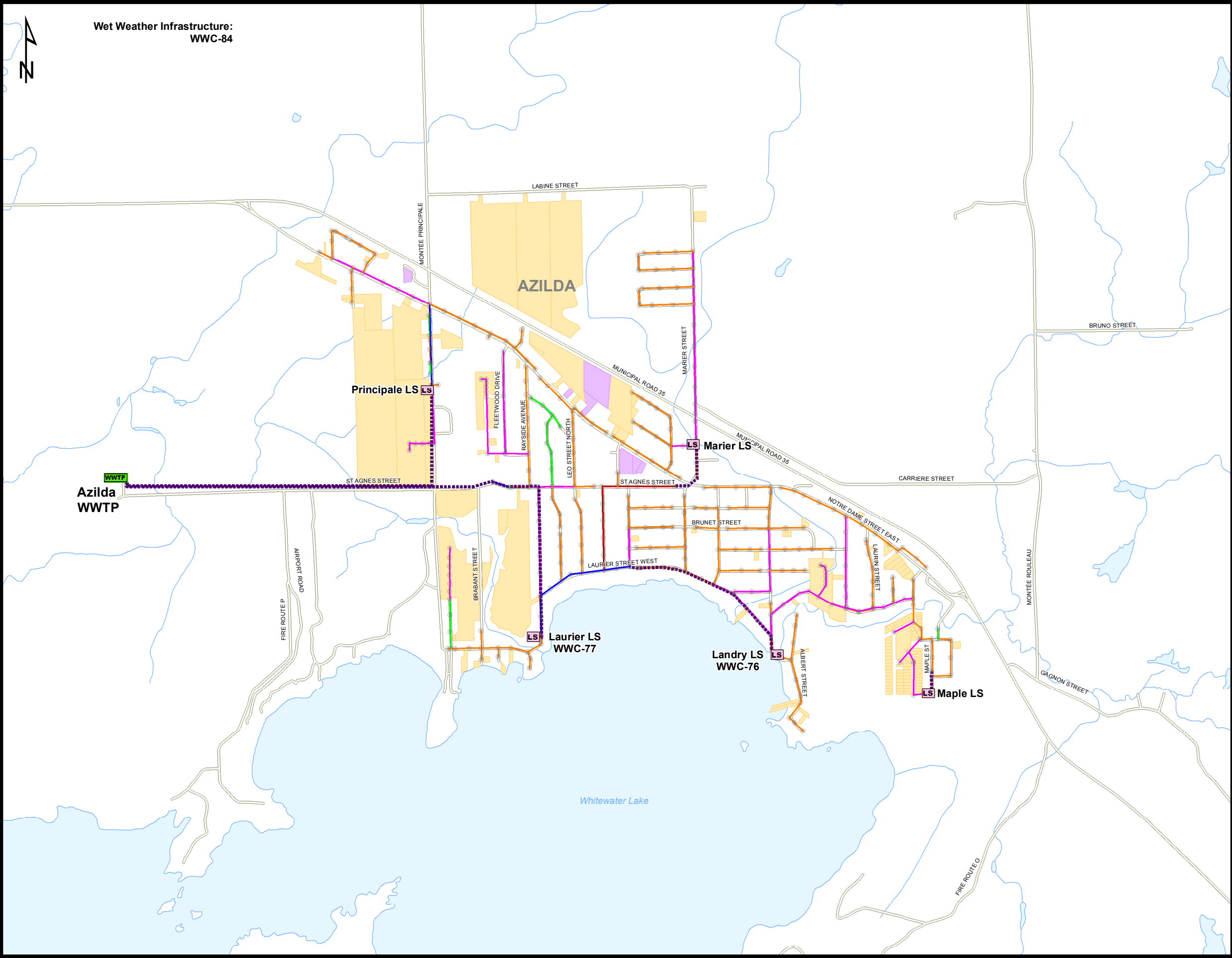
- 1 Development approvals may be granted in circumstances where full municipal services are not immediately available, provided that the development approval does not over-commit servicing capacity identified through a servicing master plan or an approved Environmental Assessment, and the lands are appropriately designated for development in accordance with the policies of this Plan.
- 2 That water and wastewater capacity is allocated by the City in a manner that supports the policies of the Official Plan and with other City Council approved policies with respect to servicing capacity. Areas within the Built Boundary shall be the priority when allocating servicing capacity. Water and wastewater servicing capacity will be confirmed prior to development approval. Allocated treatment capacity can be tracked per development to ensure the City does not approve of any development without first ensuring there is capacity to provide adequate potable water and wastewater treatment capacity. All development in the Settlement Areas of the City shall be serviced by municipal water, sanitary sewers, storm sewers and other utilities. Conversely, development in the Rural Areas will not be serviced by municipal water, and sanitary sewers.
- 3 Servicing capacity for development will be allocated by the City at the draft approval stage and will expire with the draft approval.



PLANNING

- 1 Settlement areas shall be developed in accordance with this Plan, based on the principles of sequential development, progressive extension, improvement, rehabilitation and economical utilization of the City water supply and sanitary sewerage systems, and minimization of financial impacts on the City in accordance with this Plan.
- 2 A Water and Wastewater Master Plan shall be updated regularly, at least every 5 years, to establish servicing requirements of the Settlement Areas designated in the Official Plan. This servicing plan shall address the following:
 - the required long-term improvements, expansions and additions to water supply and sanitary sewerage systems to meet the population forecasts and related employment forecasts for a minimum of 20 years, including *intensification and infilling*;
 - the estimated expenditures necessary for the provision of the required works; and
 - the staging of construction and financing of the required works
 - the sustainable delivery of water and wastewater services, long term water efficiency, conservation, and public education.

7.2.2 BEST PRACTICES FOR INFRASTRUCTURE PLANNING & USAGE

- 1 To develop and implement a wastewater inflow and infiltration reduction program and commissioning standards for new wastewater systems.
- 2 To recognize, prioritize and respond to wastewater-related issues caused by climate change, including impacts that may affect water quantity and quality.
- 3 To promote groundwater and source water protection for wells through the implementation of the natural heritage and environmental policies contained in this Plan.
 - encourage and support public awareness programs to prevent pollution; and,
 - design Sudbury’s wastewater system to appropriately respond to anticipated impacts from global climate change.
- 4 That future development is not implemented on top of any existing underground utilities that are not within a right of way or a designated easement to ensure that access to the utility is maintained.
 - In cases in which underground utilities such as sewers are not located within designated easements or right of ways and are in need of replacement, that they be relocated within a designated right of way or easement to ensure the City can readily access the utility for future inspections, maintenance and replacement.
- 5 To enforce the City’s sewer use by law to discourage illegal connections into the system and improper use of the wastewater conveyance system.





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January 23 2017

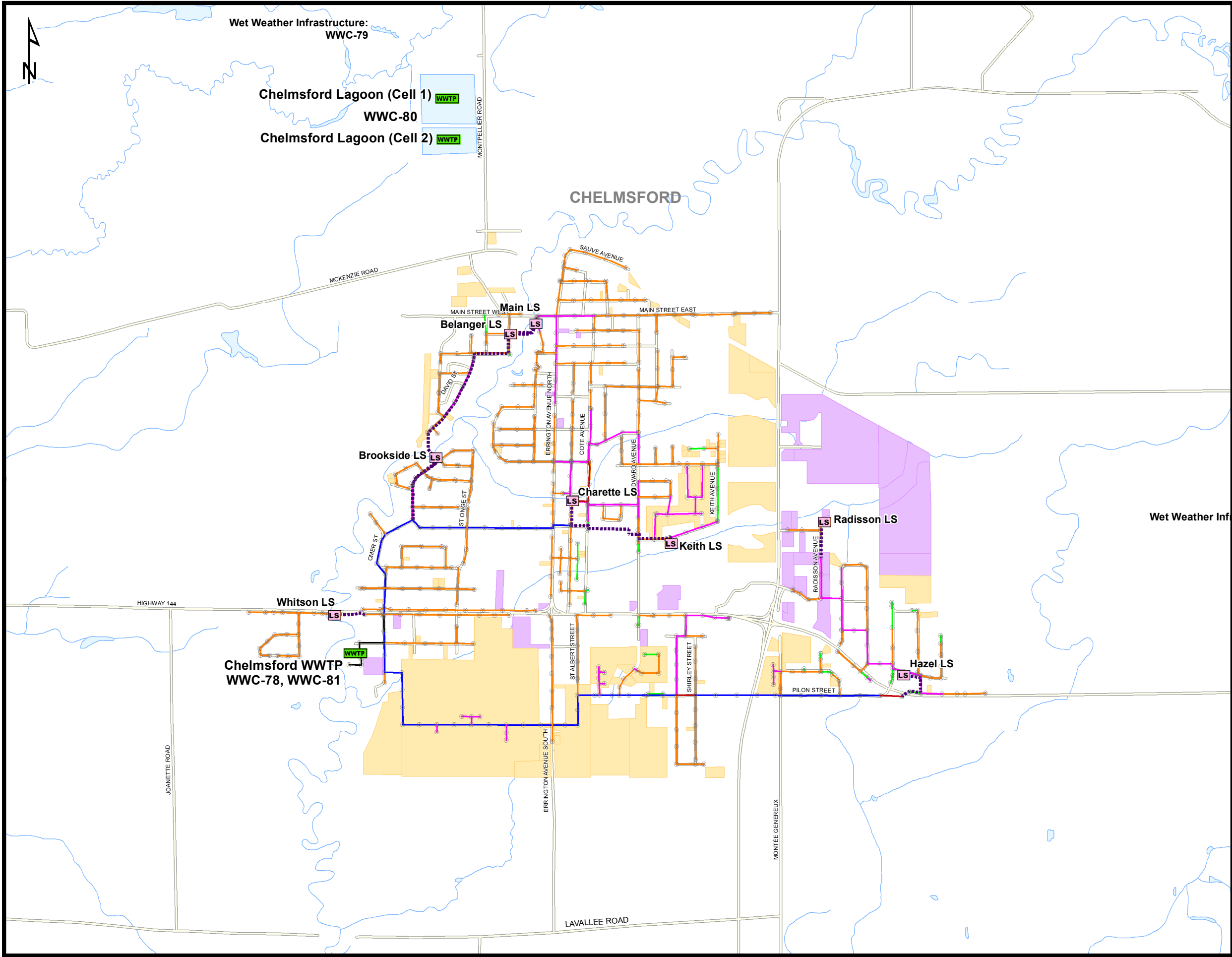
Sudbury Water and Wastewater Master Plan

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Map 1.8

Azilda Wastewater System - Alternative Projects



Legend

- LS** Lift Station
- WWTP** Sanitary Treatment Plant
- Manhole
- Waterbody
- Road
- Watercourse
- Forcemain
- Pipe: Diameter (mm)**
 - <= 50
 - <= 150
 - <= 200
 - <= 300
 - <= 400
 - <= 600
 - > 600
- Alternative Installation Year**
 - 2021
 - 2026
 - 2031
 - 2041
 - Ultimate
- Vacant Land Inventory**
 - ICI
 - Residential



Project No. 121-23026-00

January 23 2017

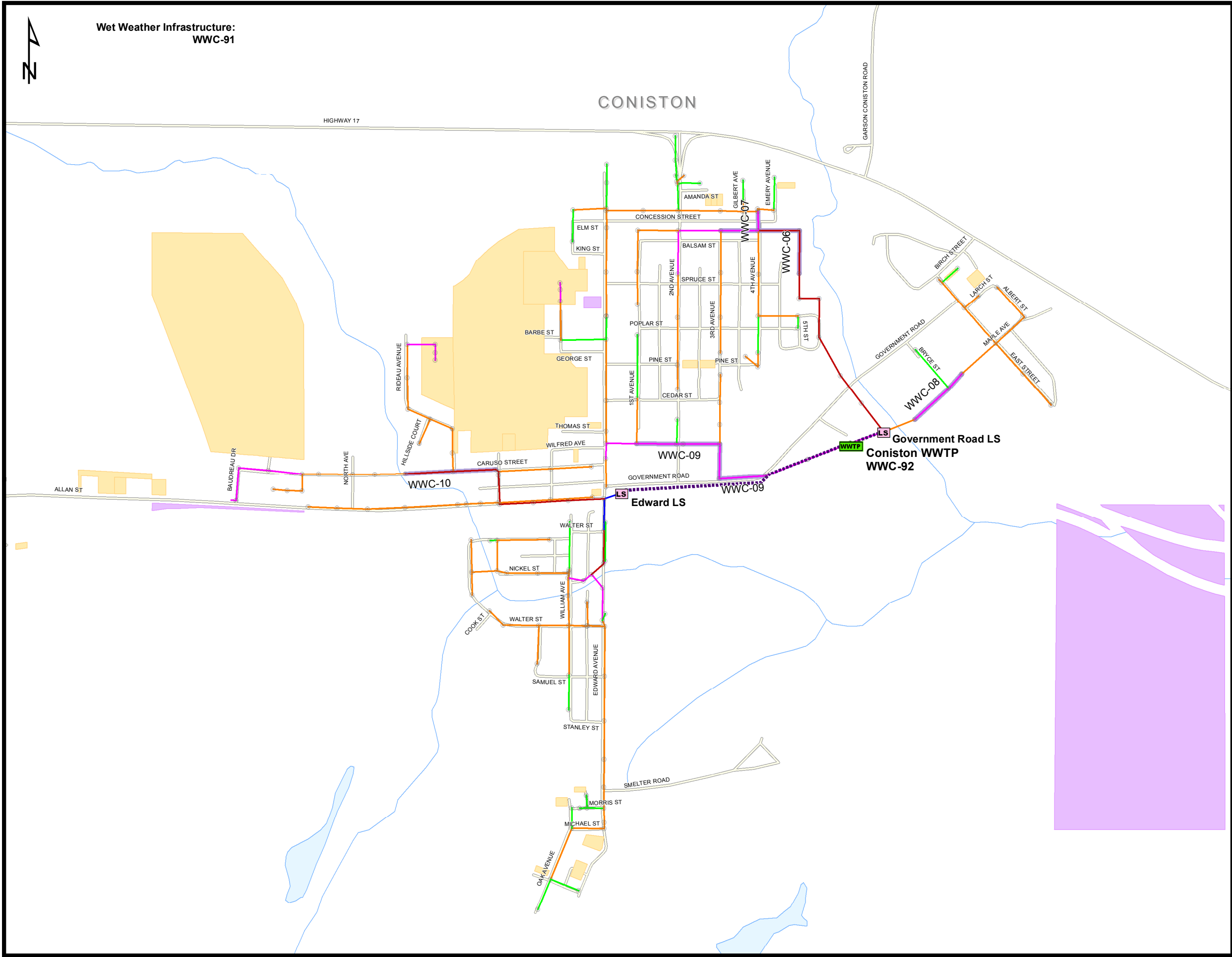
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Map 3.8

Chelmsford Wastewater System - Alternative Projects



Legend

- LS** Lift Station
- WWTP** Sanitary Treatment Plant
- Manhole
- Waterbody
- Road
- Watercourse
- Forcemain

Pipe: Diameter (mm)

- <= 50
- <= 150
- <= 200
- <= 300
- <= 400
- <= 600
- > 600

Alternative Installation Year

- 2021
- 2026
- 2031
- 2041
- Ultimate

Vacant Land Inventory

- ICI
- Residential

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January 23 2017

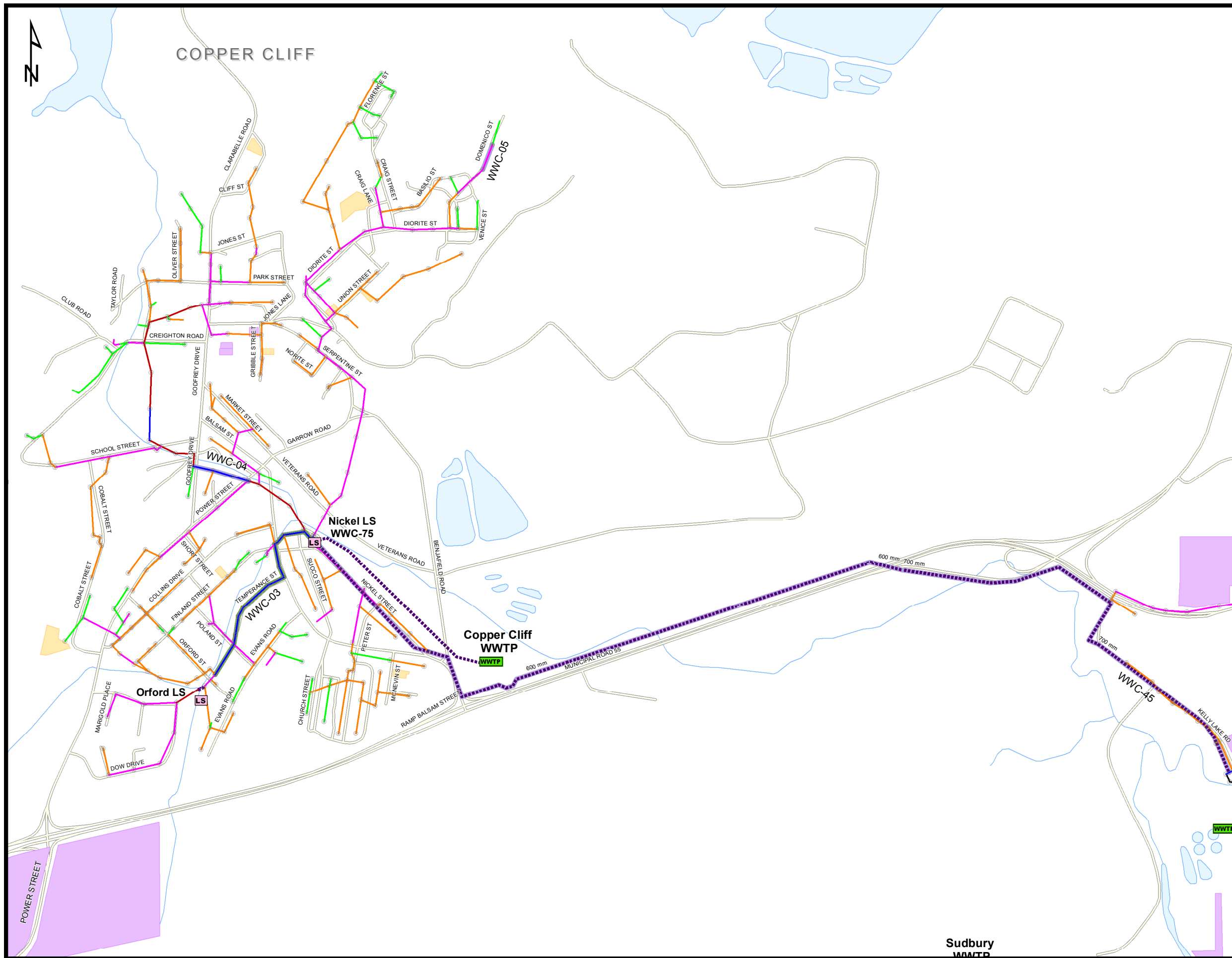
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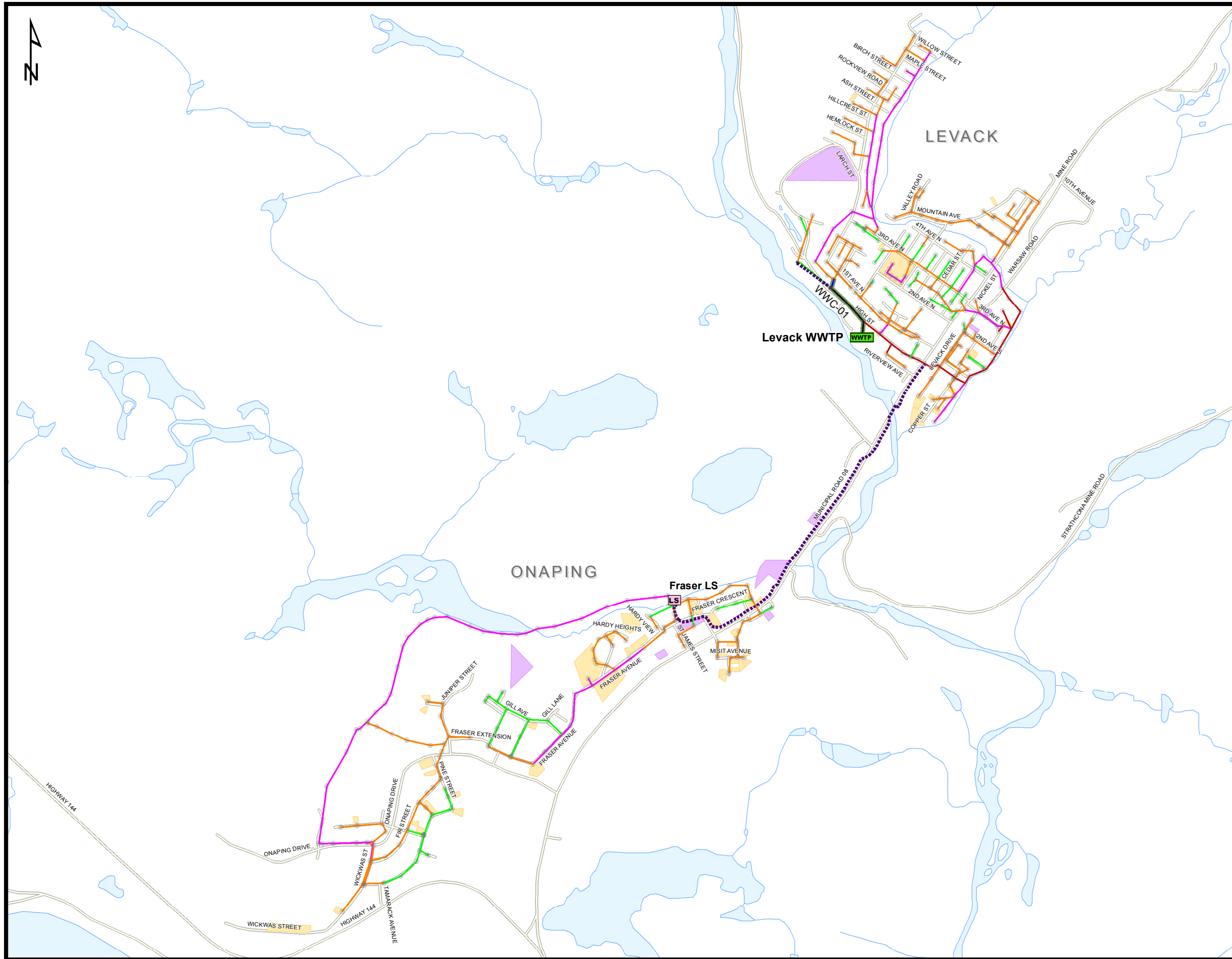
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Map 2.8

Coniston Wastewater System - Alternative Projects





Legend

- LS** Lift Station
- WWTP** Sanitary Treatment Plant
- Manhole
- Waterbody
- Road
- Watercourse
- Forcemain

Pipe: Diameter (mm)

- <= 50
- <= 150
- <= 200
- <= 300
- <= 400
- <= 600
- > 600

Alternative Installation Year

- 2021
- 2026
- 2031
- 2041
- Ultimate

Vacant Land Inventory

- ICI
- Residential

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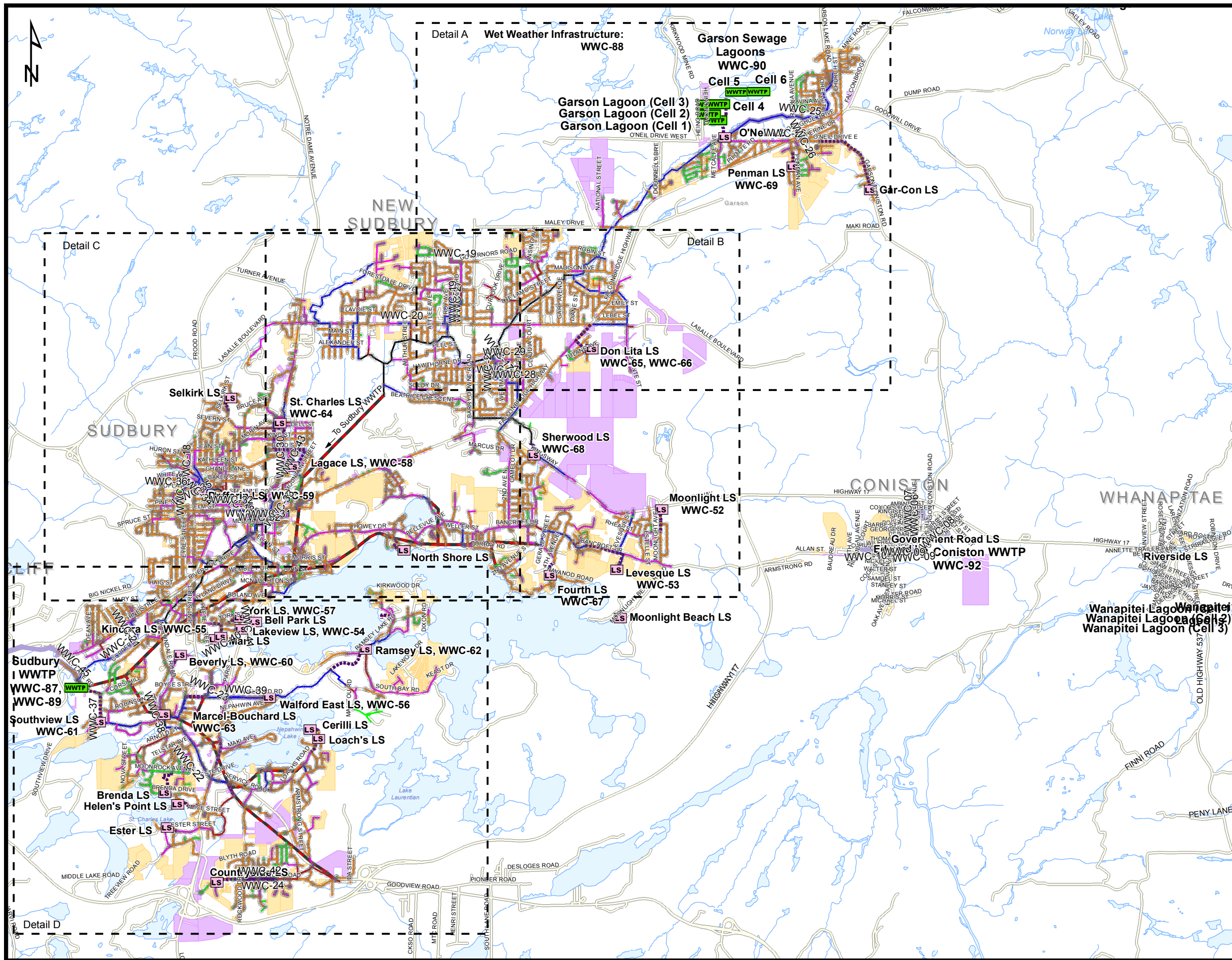
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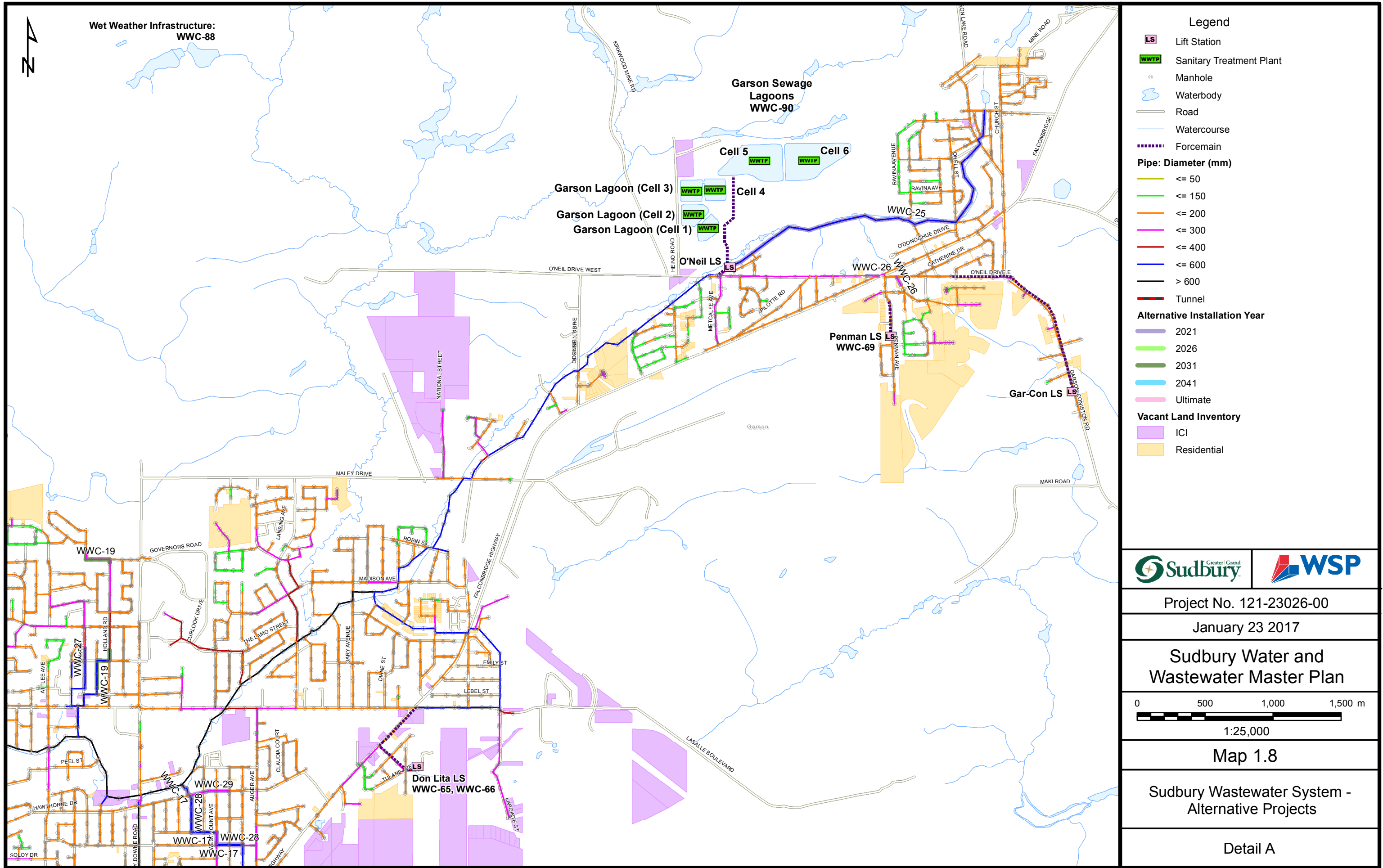
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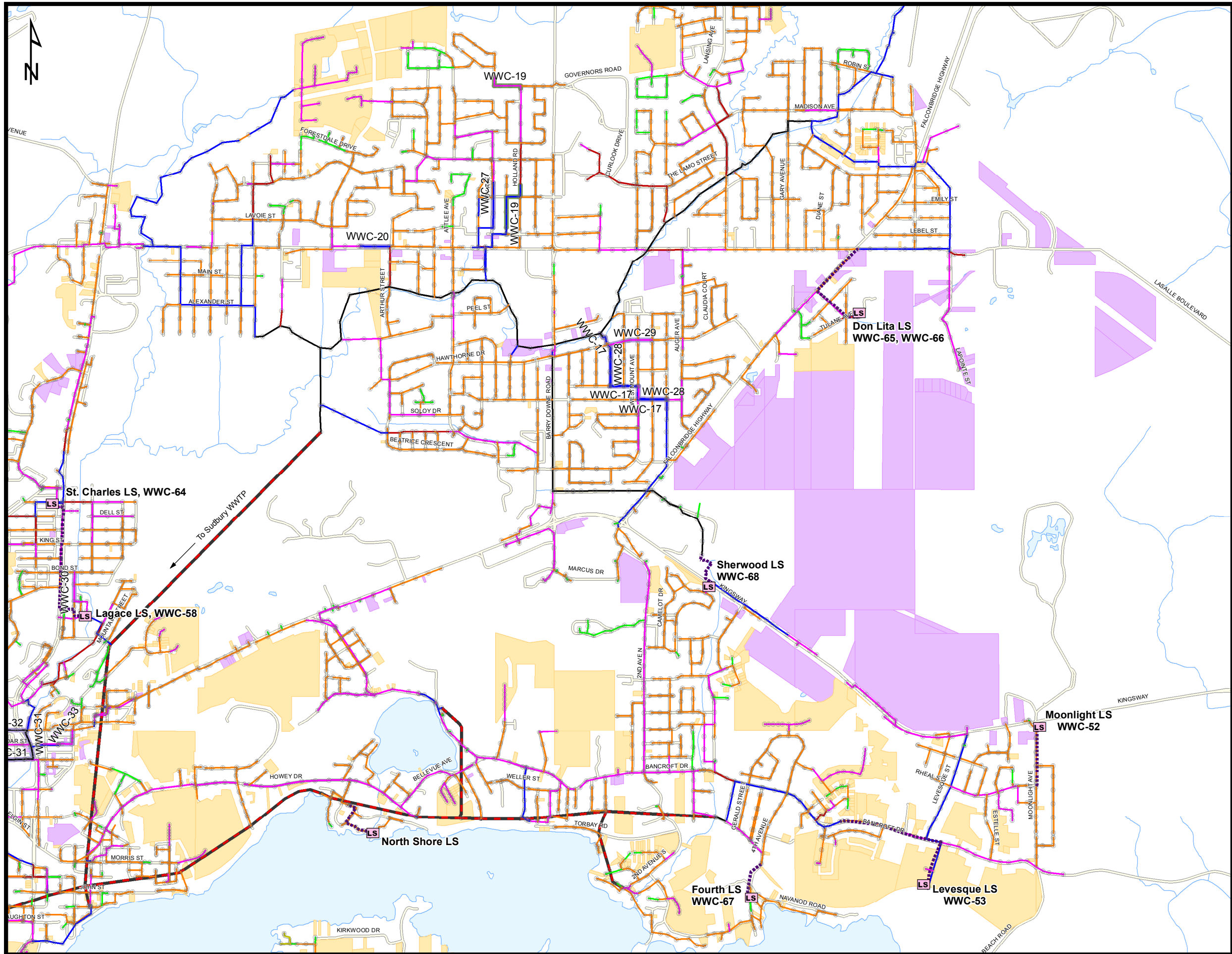
Map 8

Onaping and Levack Wastewater System - Alternative Projects



 	
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Map 1.8	
Sudbury Wastewater System - Alternative Projects	





Legend

- LS** Lift Station
- WWTP** Sanitary Treatment Plant
- Manhole
- Waterbody
- Road
- Watercourse
- Forcemain

Pipe: Diameter (mm)

- <= 50
- <= 150
- <= 200
- <= 300
- <= 400
- <= 600
- > 600
- Tunnel

Alternative Installation Year

- 2021
- 2026
- 2031
- 2041
- Ultimate

Vacant Land Inventory

- ICI
- Residential

Project No. 121-23026-00

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Sudbury Water and Wastewater Master Plan

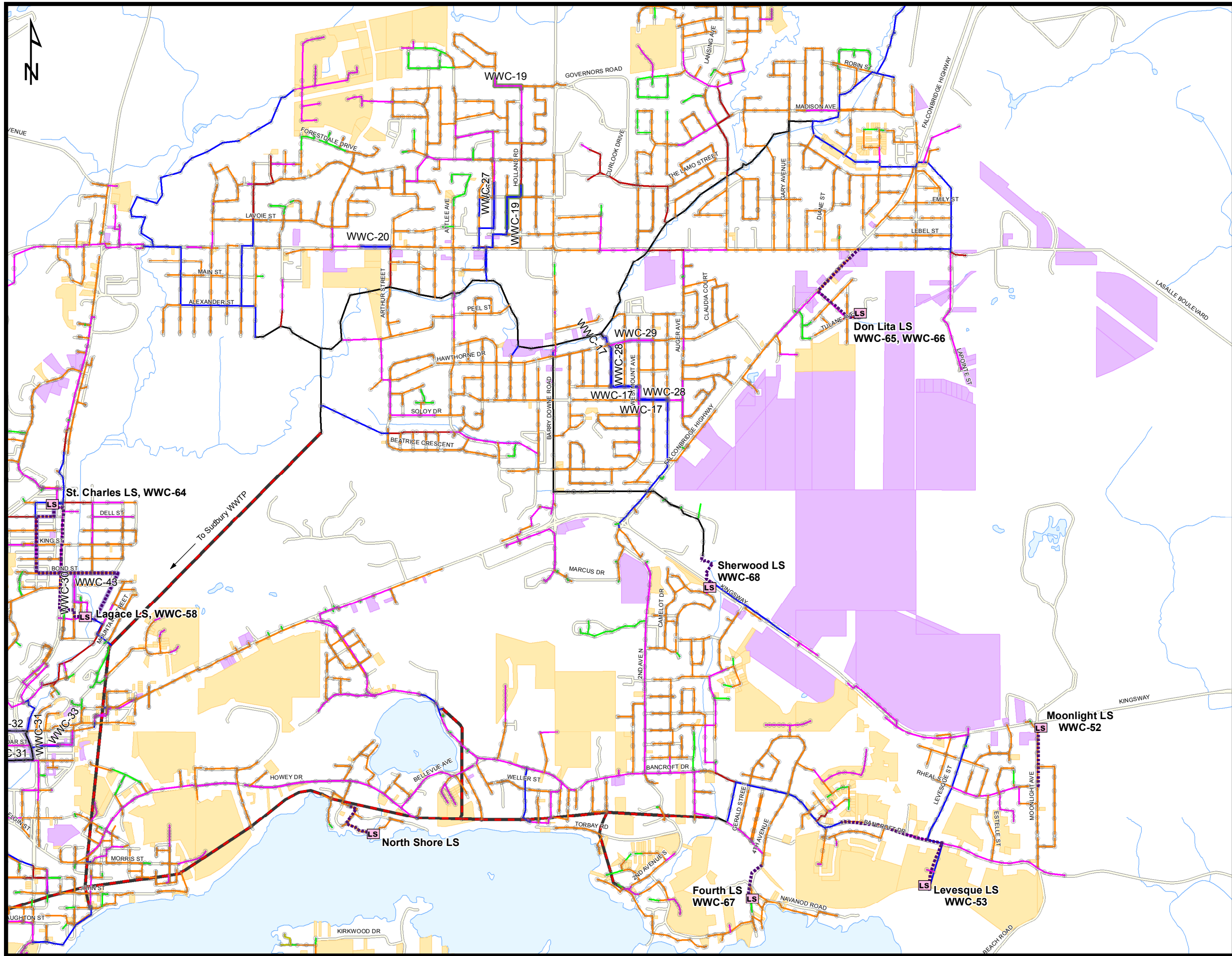
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Map 1.8

Sudbury Wastewater System - Alternative Projects

Detail B



Legend

LS

Lift Station

WWTP

Sanitary Treatment Plant

Manhole

Waterbody

Road

Watercourse

Forcemain

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Tunnel

Alternative Installation Year

2021

2026

2031

2041

Ultimate

Vacant Land Inventory

ICI

Residential

Sudbury

Greater Grand

WSP

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January 23 2017

Sudbury Water and
Wastewater Master Plan

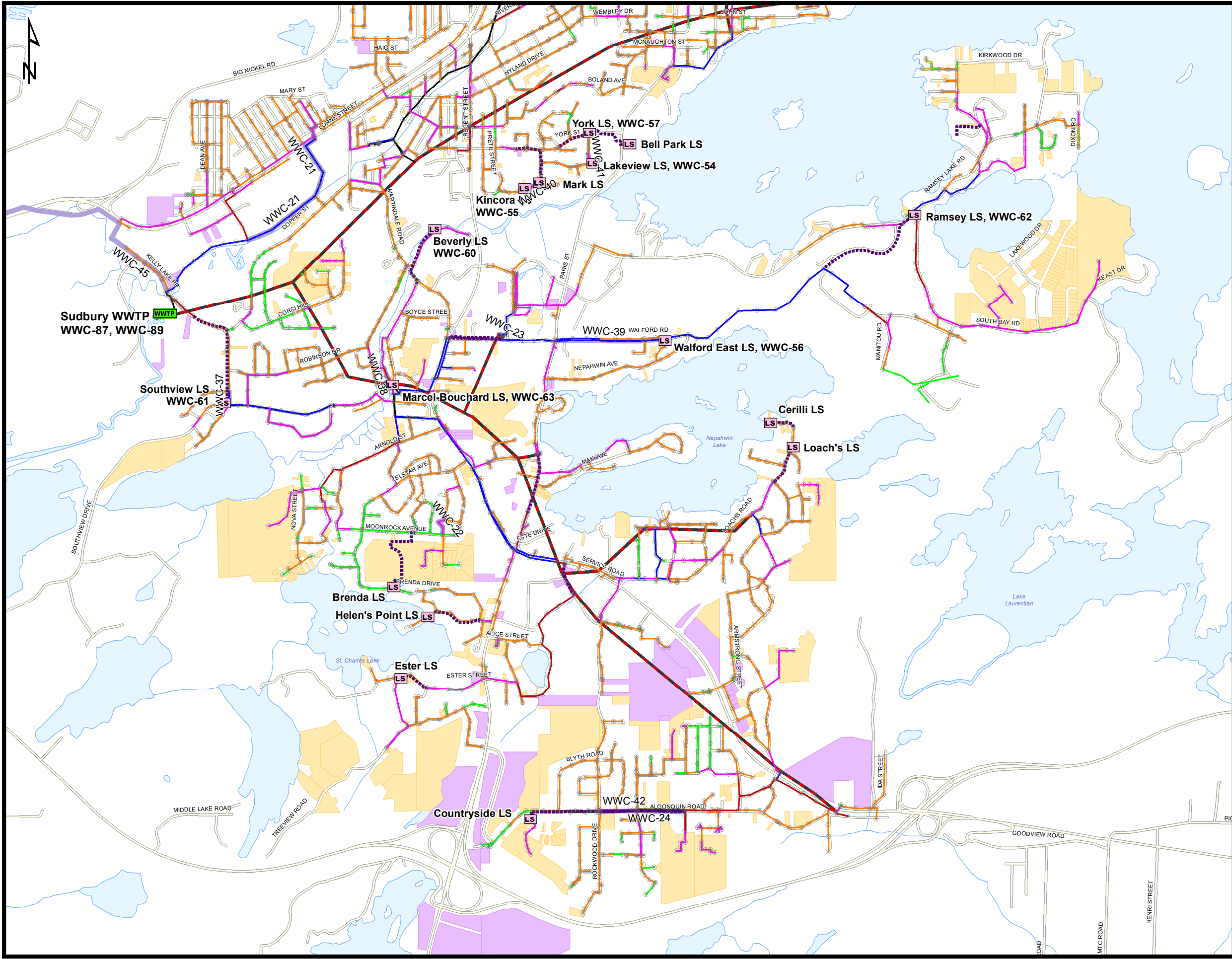
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Map 1.8

Sudbury Wastewater System -
Alternative Projects

Detail C



Legend

- LS** Lift Station
- WWTP** Sanitary Treatment Plant
- Manhole
- Waterbody
- Road
- Watercourse
- Forcemain
- Pipe: Diameter (mm)**
 - <= 50
 - <= 150
 - <= 200
 - <= 300
 - <= 400
 - <= 600
 - > 600
 - Tunnel
- Alternative Installation Year**
 - 2021
 - 2026
 - 2031
 - 2041
 - Ultimate
- Vacant Land Inventory**
 - ICI
 - Residential



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Sudbury Water and Wastewater Master Plan

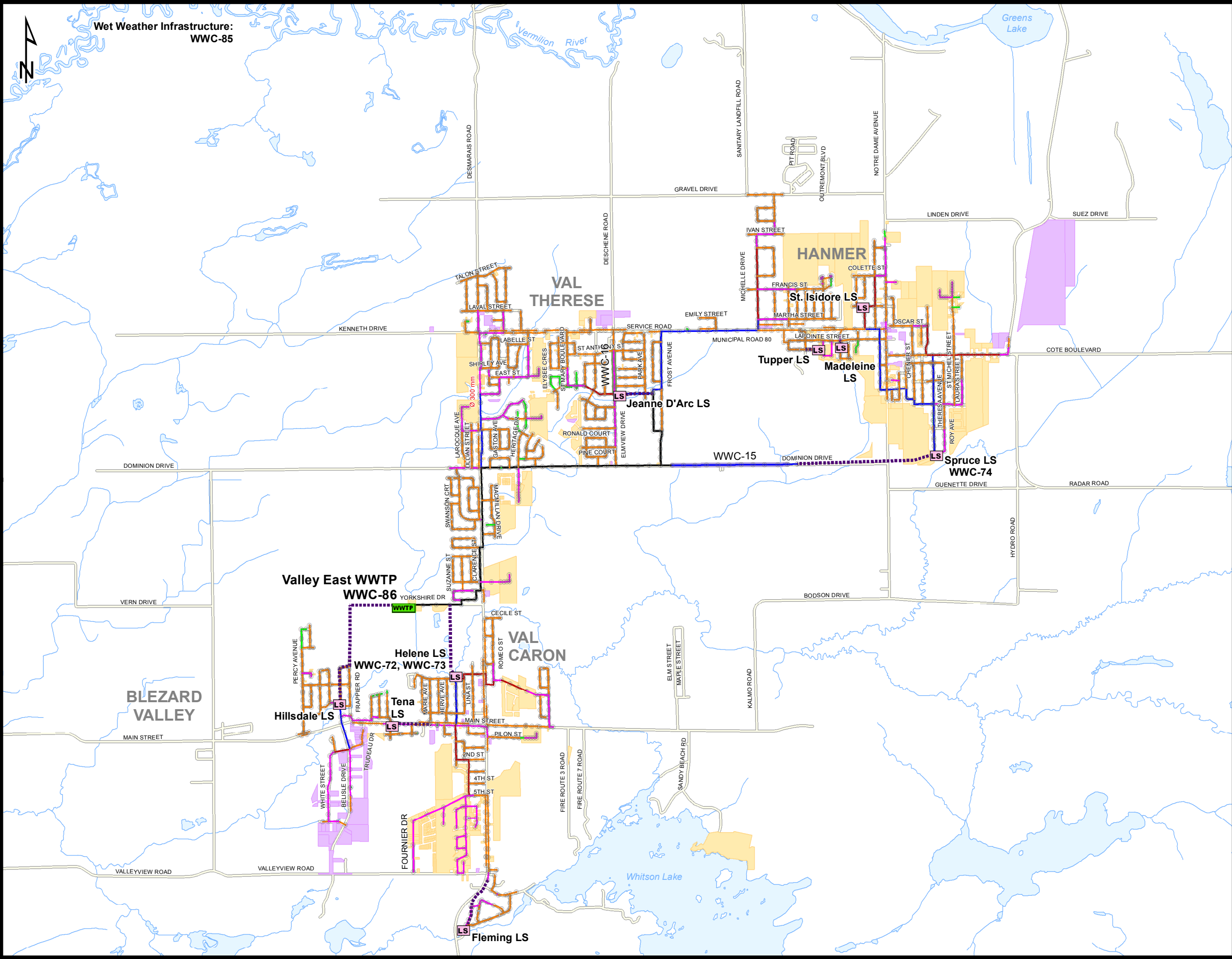
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Map 1.8

Sudbury Wastewater System - Alternative Projects

Detail D



Legend

LS

Lift Station

WWTP

Sanitary Treatment Plant

○

Manhole

Waterbody

Road

Watercourse

Forcemain

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Alternative Installation Year

2021

2026

2031

2041

Ultimate

Vacant Land Inventory

ICI

Residential

Sudbury

Greater Grand

WSP

Project No. 121-23026-00

January 23 2017

Sudbury Water and
Wastewater Master Plan

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1:45,000

Map 4.8

Valley East Wastewater System -
Alternative Projects

APPENDIX 7-A

SYSTEM WIDE WASTEWATER STUDIES





**City of Sudbury Water and Wastewater Master Plan
Recommended Infrastructure
Wastewater Infrastructure Studies**

System	Project ID	Project Name	Project Extents/Description	Trigger for the Study	Funding Source	Rounded Project Cost (\$)	Implementation Timing
Lively-Walden	LIW-WWC- 93	Hydraulic Study - Collector Trunk Main Evaluation	New 600mm collector trunk sewer to be constructed, parallel to Black Lake Road, to service new residential developments (parcels # 153, 31, 32, 29, 30, 147).	Residential development causing surcharge along Old Highway 17, Service Road and Jacob Street in Sudbury.	Cost Share	\$25,000	2021
Lively-Walden	LIW-WWD- 94	Lively Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	Development Funded	\$37,000 \$24,000 \$24,000 \$24,000	2018 2019 2020 2021 2022
Lively-Walden	LIW-WWC- 95	ESR Addendum to Lively-Walden WWTP Expansion Class EA	Need to revise the recommendations in the last ESR in order to reflect the new flows per the Master Plan, which are significantly higher than the Lively/Walden ESR. Previous plant design considered large instantaneous peaking factors so no additional wet weather tankage would be required at the plant. The plant would be designed to push all flow through.		City Funded	\$75,000	2021
Copper Cliff	CCL-WWC- 96	Hydraulic Study - Tunnel Evaluation	New tunnel to be constructed to service future ICI parcels (# 12 and 11). This tunnel would be built deeper than the existing sewers and extend to the Nickel LS, allowing for the Orford LS to be decommissioned. This project would require a larger wetwell at Nickel LS, and would improve pumping conditions when conveying flows to the Sudbury WWTP.	Future ICI flows	Cost Share	\$15,000	2021
Coniston	CON-WWC- 114	Coniston Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	City Funded	\$37,000 \$24,000 \$24,000 \$24,000 \$24,000	2017 2018 2019 2020 2021
Coniston	CON-WWD- 97	Hydraulic Study - ICI Flow Direction to WWTP	Direct flows from proposed ICI parcels (# 29) to the Coniston WWTP	Future ICI flows	Development Funded	\$100,000	2021
Coniston	CON-WWC- 98	Class EA - Coniston Wet Weather Infrastructure			City Funded	\$100,000	2021
Chelmsford	CHL-WWC- 99	Chelmsford Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	City Funded	\$37,000 \$24,000 \$24,000 \$24,000 \$24,000	2017 2018 2019 2020 2021
Chelmsford	CHL-WWC- 100	Class EA - Chelmsford Wet Weather Infrastructure			City Funded	\$100,000	2021
Chelmsford	CHL-WWC- 115	Class EA - Chelmsford WWTP Expansion	Schedule C Class EA to evaluate alternatives to provide additional treatment capacity at the Chelmford WWTP.		City Funded	\$200,000	2026
Sudbury	SUD-WWD- 101	Hydraulic Study - Evaluate ICI Flows Direction to Tunnel	Evaluation of the collectors to the tunnel, including catchment divide. This would service ICI flows from multiple parcels (including but not limited to # 297, 1016, 302, 308, 367, 284, 239, 284, 90, 1018, 993, 81, 79, 80, 1093)	Future ICI flows	Development Funded	\$10,000	2021
Sudbury	SUD-WWC- 102	Sudbury Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	City Funded	\$74,000 \$48,000 \$48,000 \$48,000 \$48,000	2017 2018 2019 2020 2021



**City of Sudbury Water and Wastewater Master Plan
Recommended Infrastructure
Wastewater Infrastructure Studies**

System	Project ID	Project Name	Project Extents/Description	Trigger for the Study	Funding Source	Rounded Project Cost (\$)	Implementation Timing
Sudbury	SUD-WWC- 103	Class EA - Sudbury Wet Weather Infrastructure			City Funded	\$100,000	2021
Valley	VAL-WWC- 104	Valley Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	City Funded	\$37,000	2017
						\$24,000	2018
						\$24,000	2019
						\$24,000	2020
						\$24,000	2021
Valley	VAL-WWC- 105	Class EA - Valley Wet Weather Infrastructure			City Funded	\$100,000	2021
City of Greater Sudbury	CGS-WWC- 106	CGS I&I Study	I&I Study Efforts (smoke testing, CCTV Inspection, etc.) for Chelmsford, Azilda, Valley, Lively-Walden, Sudbury, Coniston.	I&I Reduction	City Funded	\$450,000	2021
City of Greater Sudbury	CGS-WWC- 107	CGS I&I Downspout Disconnection Program	Additional I&I Reduction Activities in Category 5 Areas	I&I Reduction	City Funded	\$562,000	2017
						\$531,000	2018
						\$531,000	2019
						\$531,000	2020
						\$531,000	2021
City of Greater Sudbury	CGS-WWC- 108	WWTP Screens Study	1. First investigate if there are any problems or concerns with the biosolids being processed at the biosolids facility. If there are problems, then 2. Investigate the current screens being used at each plant and how they can be replaced to ensure no inorganic material is entering the biosolids facility.		City Funded	\$90,000	2021
Azilda	AZL-WWC- 116	Azilda Flow Monitoring	Inspection and Implementation of Permanent Flow Monitoring	I&I Reduction	City Funded	\$37,000	2017
						\$24,000	2018
						\$24,000	2019
						\$24,000	2020
						\$24,000	2021
Chelmsford	CHL-WWC- 81	Stress Test - Chelmsford WWTP (Unit Process Review)	Stress tests for plants with wet weather control issues.	I&I Reduction	City Funded	\$90,000	2021
Valley	VAL-WWC- 86	Stress Test - Valley East WWTP (Unit Process Review)	Stress tests for plants with wet weather control issues.	I&I Reduction	City Funded	\$90,000	2021
Sudbury	SUD-WWC- 89	Stress Test - Sudbury WWTP (Unit Process Review)	Stress tests for plants with wet weather control issues.	I&I Reduction	City Funded	\$90,000	2021
Coniston	CON-WWC- 92	Stress Test - Coniston WWTP (Unit Process Review)	Stress tests for plants with wet weather control issues.	I&I Reduction	City Funded	\$90,000	2021
Sudbury	SUD-WWC- 117	Addendum to Sudbury WWTP ESR	Addendum to the existing ESR to re-evaluate the use of MBBR and to update the projected wastewater flows collected at the plant.		City Funded	\$150,000	2026
Coniston	CON-WWC- 118	Flow Monitoring at Government LS	Flow monitoring to be undertaken at Government LS to validated the amount of flow entering the facility. The current capacity of the LS is 18.1 L/s whereas the future required capacity has been modeled to be 140 L/s. Some analysis based on empirical data is required to ensure the flows calculated in the model are representative of existing conditions.		City Funded	\$25,000	2021
City of Greater Sudbury	CGS-WWC- 119	Water Quality Monitoring Program	Establish a program to collect water quality data for all WWTP receiving waters. The data can be used for analysis as part of the future Pollution Prevention Control Plan updates.		City Funded	\$100,000	2021
						TOTAL	\$5,617,000

APPENDIX 7-B

RECOMMENDED WASTEWATER INFRASTRUCTURE PROJECTS IN THE CGS

System	Project ID	Project Name	New Project description	Stream Order (WSP Ref. #)	Pipe Type	Existing Sewers		Proposed Sewers			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes Regarding the EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing
						Length (m)	Diameter (mm)	Length (m)	Diameter (mm)	Pipe Material							
Levack-Onaping	ONL-WWC- 01	High Street	Upgrade existing gravity main along High Street from the Levack WWTP up to and including the easment connection to 1st Avenue North.	Primary (1)	Gravity	38	300	38	600	Concrete	Existing	Surcharge	A	Within ROW	Cost Share	\$70,000	2031
						149	400	263	1050								
						49	300										
						65	400										
Dowling	DOW-WWC- 02	Lionel Ave	Upgrade existing gravity main along Lionel Avenue between Arlington Drive West and the Lionel Lift Station.	Secondary (3)	Gravity	200	300	183	450	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$350,000	2021
								16	600	Concrete							
Copper Cliff	CCL-WWC- 03	Temperance Street	Upgrade existing gravity mains along Temperance Street between Orford Street and Balsam Street. Upgrade existing gravity main along Balsam Street, extending north from Temperance Street. Upgrade existing gravity main north of Nickel Lift Station.	Primary (1)	Gravity	196	250	550	600	Concrete	Existing	Surcharge	A	Within ROW	Cost Share	\$1,260,000	2031
						229	300										
						90	375										
						25	450										
						10	375										
Copper Cliff	CCL-WWC- 04	Balsam Street	Upgrade existing gravity mains extending east from Godfrey Drive to Power Street, south and parallel to Balsam Street.	Secondary (2)	Gravity	154	375	154	450	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$380,000	2021
Copper Cliff	CCL-WWC- 05	Domenico Street	Upgrade existing gravity main along Domenico Street, north of Venice Street.	Tertiary (1)	Gravity	70	100	70	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$100,000	2021
Copper Cliff	CCL-WWC- 45	Nickel LS forcemain	New forcemain at Nickel LS	N/A	Forcemain	N/A	N/A	3075	600 700	PVC	Existing	Redirecting Flow from Copper Cliff to	B	EA is already underway	City Funded	\$4,710,000	2021
Coniston	CON-WWC- 06	5th Ave Easement	Upgrade existing gravity mains along Balsam Street extending east from 3rd avenue and south towards 5th Street.	Secondary (1)	Gravity	99	200	99	250	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$230,000	2021
						110	300	225	375								
						115	200										
Coniston	CON-WWC- 07	Fourth Ave	Upgrade existing gravity main along 4th Avenue from between Balsam Street and Concession Street, extending north of Concession Street.	Tertiary (1)	Gravity	54	200	54	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$90,000	2021
Coniston	CON-WWC- 08	Government Road	Upgrade existing gravity main running parallel to and south of Government Road to the east of the Government Road Lift Station.	Secondary (2)	Gravity	175	200	175	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$380,000	2021
Coniston	CON-WWC- 09	Cedar Street	Upgrade existing gravity main passing through Coniston Centennial Park, south to Government Road, and east along Government Road.	Secondary (3)	Gravity	437	200	437	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$690,000	2021
Coniston	CON-WWC- 10	Caruso Street	Upgrade existing gravity mains along Caruso Street, extending west from Horace Avenue.	Secondary (5)	Gravity	241	200	241	375	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$380,000	2021
Lively-Walden	LIW-WWC- 46	10th_3rd_AndersonRd	Upgrade existing gravity mains along 9th Avenue and 3rd Avenue, extending south from 9th Avenue to Anderson Drive and north along Anderson Drive to Anderson Lift Station.	N/A	Gravity	322	200	322	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$610,000	2021
						858	250	858	375							\$1,430,000	
						487	300	895	450							\$1,570,000	
						407	375										
						43	400	43	525							\$90,000	
						85	400	85	525							\$180,000	
						130	400	130	525							\$380,000	

System	Project ID	Project Name	New Project description	Stream Order (WSP Ref. #)	Pipe Type	Existing Sewers		Proposed Sewers			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes Regarding the EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing					
						Length (m)	Diameter (mm)	Length (m)	Diameter (mm)	Pipe Material												
Lively-Walden	LIW-WWC- 47	MR 24	Upgrade existing gravity mains along Jacob Street, extending west from Eve Street and south to Jacob Lift Station.	N/A	Gravity	616	525	542	1050	Concrete	Existing	Surcharge	A	Within ROW	Cost Share	\$1,650,000	2021					
								137	600	PVC												
Lively-Walden	LIW-WWC- 48	Niemi	Upgrade two segments of existing gravity mains extending parallel to Anderson Drive towards Anderson Lift Station.	N/A	Gravity	39	400	39	600	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$70,000	2021					
						91	400	91	600							\$210,000						
Lively-Walden	LIW-WWC- 44	Jacob Street LS Forcemain	New forcemain at Jacob Street LS	N/A	Forcemain	N/A	N/A	1996	400	PVC	Existing				City Funded	\$3,440,000	2021					
Valley East	VAL-WWC- 15	Dominion Drive	Upgrade existing gravity main along Dominion Drive, east of Frost Avenue	Primary (1)	Gravity	1380	350	117	450	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$250,000	2021					
Valley East	VAL-WWC- 16	Elmview Drive	Upgrade existing sewer along Elmview Drive between St Anthony Street and Jeanne D'Arc Street.	Secondary (1)	Gravity	520	200	520	300	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$1,470,000	2031					
Sudbury	SUD-WWC- 17	Gemmell Street	Upgrade existing gravity mains along Gemmell Street between Westmount Avenue and Churchill Avenue, and extending south along Churchill Avenue. Upgrade existing gravity mains along Canterbury Street between Westmount Avenue and Hildegarde Avenue. Upgrade existing gravity mains extending north from Hawthorne Drive towards Firburn Street.	SUDB-NEE-01-04	Gravity	345	450	532	600	Concrete	Existing	Surcharge	A	Within ROW	City Funded	\$1,090,000	2021					
						90	305															
						96	450															
						129	450	96	600							\$220,000						
Sudbury	SUD-WWC- 18	Davidson Street	Upgrade existing gravity mains from the east end of Beech Street, north to Ste Anne Road, extending parallel to Davidson Street. Upgrade existing gravity mains along Frood Street from the rail line, extending north past Kathleen Street.	SUDB-MCK-01-02A	Gravity	116	250	116	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$300,000	2021					
						232	300	232	450							\$210,000						
						767	600	767	900	Concrete						\$2,590,000						
Sudbury	SUD-WWC- 19	Lilian Blvd	Upgrade existing gravity mains at the north end of Holland Road, extending west and north along Lilian Road to just south of Shelley Drive. Upgrade existing gravity mains along Lamothe Street between Arvo Avenue and Holland Road, north on Holland Road, and south on Avro Avenue.	SUDB-MCK-01-04	Gravity	257	200	257	300	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$420,000	2031					
						80	400	373	450	PVC												
						85	300															
						207	375			\$810,000												
Sudbury	SUD-WWC- 20	Lasalle Boulevard	Upgrade existing gravity main along Lasalle Boulevard, extending west from Lauzon Avenue.	SUDB-MCK-01-05	Gravity	194	300	194	450	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$410,000	2021					
Sudbury	SUD-WWC- 21	MR 55	Upgrade existing gravity mains beginning east of Bulmer of Avenue, extending west and parallel to Lorne Street, south to Lorne Street, west along Lorne Street, and South along Pacific Avenue towards Copper Street. Upgrade existing gravity mains extending east from Webbwood Drive and parallel to Copper Street.	SUDB-MCK-01-06	Gravity	91	250	91	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$240,000	2021					
						996	300	996	450							\$1,980,000						
Sudbury	SUD-WWC- 22	Moonrock Avenue	Upgrade existing gravity main in the easemeth between Gemini Crescent and Moonrock Avenue.	SUDB-MCK-02-02	Gravity	143	150	143	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$390,000	2021					
Sudbury	SUD-WWC- 23	Walford	New gravity main north of and parallel to Walford Road, extending west from Ramsey View Court.	SUDB-MCK-02-03	Gravity	N/A	N/A	26	450	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$160,000	2021					
Sudbury	SUD-WWC- 24	Countryside Road	Upgrade existing gravity mains along Algonquin Road from Trailridge Drive to Maurice Street.	SUDB-MCK-02-04	Gravity	317	300	317	450	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$600,000	2031					

System	Project ID	Project Name	New Project description	Stream Order (WSP Ref. #)	Pipe Type	Existing Sewers		Proposed Sewers			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes Regarding the EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing
						Length (m)	Diameter (mm)	Length (m)	Diameter (mm)	Pipe Material							
Sudbury	SUD-WWC- 25	Garcon	Upgrade existing gravity mains through Garcon from Spruce Street, extending South and West towards O'Neil Lift Station.	GARS-GAR-02-01	Gravity	268	200	2748	450	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$4,920,000	2021
						693	250										
						1787	300										
Sudbury	SUD-WWC- 26	O'Neil	Upgrade existing gravity main between Falconbridge Highway and O'Neil Drive West. Upgrade existing gravity main extending south from O'Neil Drive East towards Sandra Court.	GAR-04-01	Gravity	68	200	68	300	PVC	Existing	Surcharge	A	Within ROW	Cost Share	\$190,000	2021
						82	250	82	300							\$130,000	
Sudbury	SUD-WWC- 27	Roy Avenue	Upgrade existing gravity main along Roy Avene, extending south from Leon Avenue.	SUD-04-01	Gravity	299	300	299	450	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$540,000	2021
Sudbury	SUD-WWC- 28	Gemmell Street (2)	Upgrade existing gravity mains along Hildegarde Avenue between Hawthorne Drive and Canterbury Street. Upgrade exising gravity mains along Westmount Avenue, extending south from Canterbury Street and east along Gemmell Street to Churchill Avenue.	SUD-04-02	Gravity	187	200	281	450	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$500,000	2021
						94	300									\$550,000	
						250	300	250	450								
Sudbury	SUD-WWC- 29	Hawthorne Drive	Upgrade existing gravity mains along Hawthorne Drive between Danforth Avenue and Hildegarde Avenue.	SUD-04-03	Gravity	312	200	312	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$480,000	2021
Sudbury	SUD-WWC- 30	Murray Street	Upgrade existing gravity mains along Murray Street, extending south from Bond Street.	SUD-04-04	Gravity	237	200	237	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$390,000	2021
Sudbury	SUD-WWC- 31	Larch Street	Upgrade existing gravity mains along medina Lane extending west from lisgar Street, north along Minto Street from Medina Lane to Larch Street, east along Larch Street from Minto Street to Paris Street, and North crossing Paris Street towards Fairview Avenue.	SUD-04-05	Gravity	81	500	81	600	Concrete	Existing	Surcharge	A	Within ROW	City Funded	\$540,000	2021
						261	600	529	900							\$1,850,000	
						269	500										
Sudbury	SUD-WWC- 32	Beech Street	Upgrade existing gravity mains along Elm Street from Paris Street to Lisgar Street. Upgrade existing gravity mains from the east end of Beech Street north to Ste Anne Road and along Davidson Street, north and west towards Lansdowne Street.	SUD-04-06	Gravity	73	200	73	300	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$230,000	2021
						537	375	148	450							\$310,000	
								137	600	Concrete						\$320,000	
								252	450	PVC						\$440,000	
						232	600	232	750	Concrete						\$760,000	
Sudbury	SUD-WWC- 33	Brady Street	Upgrade existing gravity mains along Brady Street, extending south from Charette Street and west along Cedar Street.	SUD-04-07	Gravity	230	200	230	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$370,000	2021
Sudbury	SUD-WWC- 34	Frood Road	Upgrade existing gravity mains from Frood Street, extending west towards Dufferin Street and north, extending parallel to Frood Street, to connect to Beatty Street.	SUD-04-08	Gravity	75	375	180	450	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$610,000	2021
						104	300										
						223	375	280	600	Concrete						\$530,000	
Sudbury	SUD-WWC- 35	Poplar Street	Upgrade existing gravity main extending north from Maple Street. Upgrade existing gravity mains from the intersection of Poplar Street and Stanley Street, extending north east towards Beatty Street. Upgrade exising gravity main at the intersection of Maple Street and Parkwood Street.	SUD-04-09	Gravity	14	375	14	450	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$120,000	2021
						10	200	10	300							\$10,000	
						310	375	133	450							\$210,000	
								177	600	Concrete						\$300,000	

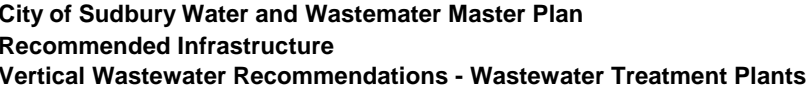
System	Project ID	Project Name	New Project description	Stream Order (WSP Ref. #)	Pipe Type	Existing Sewers		Proposed Sewers			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes Regarding the EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing
						Length (m)	Diameter (mm)	Length (m)	Diameter (mm)	Pipe Material							
Sudbury	SUD-WWC- 36	McNeill Boulevard	Upgrade existing gravity mains along McNeill Boulevard between Ethelert Street and Thompson Street.	SUD-05-01	Gravity	149	200	149	300	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$240,000	2021
Sudbury	SUD-WWC- 37	Kelly Lake Road	Upgrade existing gravity mains along Kelly Lake Road, extending north from Southview Drive.	SUD-05-02	Gravity	87	200	87	375	PVC	Existing	Surcharge	A	Within ROW	City Funded	\$170,000	2021
Sudbury	SUD-WWC- 38	Marcel LS Easement	Upgrade existing gravity main along the easement north of Marcel-Bouchard Lift Station.	SUD-05-03	Gravity	123	300	123	375	PVC	Existing	Surcharge	B	Portion of gravity main appears to be passing through an area that is not a designated ROW.	City Funded	\$450,000	2021
Sudbury	SUD-WWC- 39	Walford East LS re-routing	New gravity main to redirect flows from the Walford East LS upon decommissioning	N/A	Gravity	N/A	N/A	730	525	PVC	Future	Lift Station Decomissioning and flow re-route	A	Assumed to be within ROW	City Funded	\$1,350,000	2021
Sudbury	SUD-WWC- 40	Kincora LS re-routing	New gravity main to redirect flows from the Kincora LS upon decomissioning	N/A	Gravity	N/A	N/A	91	300	PVC	Future	Lift Station Decomissioning and flow re-route	A	Assumed to be within ROW	City Funded	\$220,000	2021
Sudbury	SUD-WWC- 41	Lakeview LS re-routing	New gravity main to redirect flows from the Lakeview LS upon decomissioning	N/A	Gravity	N/A	N/A	63	300	PVC	Futture	Lift Station Decomissioning and flow re-route	A	Assumed to be within ROW	City Funded	\$90,000	2021
Sudbury	SUD-WWC- 42	Countryside LS Forcemain extension	Extension of the Countryside Lift Station forcemain	N/A	Forcemain	N/A	N/A	1142	200	PVC	Futture	Countryside LS upgrades	A	Assumed to be within ROW	City Funded	\$1,190,000	2021
Sudbury	SUD-WWC- 43	St. Charles LS Forcemain extension	Twin and extension of the St. Charles Lift Station forcemain	N/A	Forcemain	N/A	N/A	1442	400	PVC	Future	St. Charles LS upgrades	A	Assumed to be within ROW	City Funded	\$2,240,000	2021

TOTAL	\$53,930,000
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System	Project ID	Project Name	Project Extents/Description	Existing Pumping		Required Pumping			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes	Funding Source	Rounded Project Cost (\$)	Implementation Timing
				Number of Pumps	ECA Pump Capacity (L/s)	Additional Capacity (L/s)	Total Capacity (L/s)	Number of Pumps							
Lively-Walden	LIW-WWC- 49	Decommissioning of Anderson LS	Decommissioning of Anderson LS and redirect flow towards the Walden WWTP.	2	97.80	N/A	N/A	N/A	Future	Rationalization	B	The EA has already been completed Lively / Walden Environmental Summary Report City of Greater Sudbury, June 2013 J.L. Richards and Associates Limited	City Funded	\$294,000	2021
Lively-Walden	LIW-WWC- 50	Upgrading of Jacob LS	New pumps, piping and mechanical upgrades. Auxilliary bypass and valving. New stand-by generator. Electrical upgrades including new service and instrumentation and controls.	3	N/A	500	639	3	Existing	Rationalization / Growth	B	The EA has already been completed Lively / Walden Environmental Summary Report City of Greater Sudbury, June 2013 J.L. Richards and Associates Limited	Cost Share	\$1,028,000	2021
Lively-Walden	LIW-WWC- 51	Upgrading of Jacob LS	Upgrade the size of the wet well for additional development	3	N/A	500	639	3	Future	Growth	B	The EA has already been completed Lively / Walden Environmental Summary Report City of Greater Sudbury, June 2013 J.L. Richards and Associates Limited	Development Funded	\$2,938,000	2041
Sudbury	SUD-WWC- 52	Moonlight LS Upgrade	Upgrade the pumps at Moonlight PS	2	16.3	3.90	20	2	Existing	Increase Capacity	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$118,000	2021
Sudbury	SUD-WWC- 53	Levesque LS Upgrade	Upgrade the Levesques LS. As part of this study the condition of the forcemain should also be investigated.	2	167.6	23.49	190	2	Existing	Increase Capacity	B	Higher capacity pumps required to meet existiging required capacity. The PS needs a comprehensive upgrade including a new MCC, new diesel generator and potentially a wet well expansion. It may be decided that a new PS should be constructed on the existing site. A new PS would trigger a Schedule B EA.	Development Funded	\$463,000	2021
Sudbury	SUD-WWC- 54	Decomissioning of Lakeview LS	Decomissioning of Lakeview LS to redirect flow towards York LS	2	20.9	N/A	N/A	N/A	Future	Rationalization	B	Lakeview to be decommissioned once its expected useful service life has been reached.	City Funded	\$153,000	2021
Sudbury	SUD-WWC- 55	Decommissioning of Kincora LS	Decommissioning of Kincora LS to redirect flows towards Mark LS	2	8.7	N/A	N/A	N/A	Future	Rationalization	B	Kincora to be decommissioned once its expected useful service life has been reached.	City Funded	\$153,000	2021
Sudbury	SUD-WWC- 56	Decomissioning of Walford East LS	Decomissioning of Walford East LS to redirect flows towards a nearby manhole	2	127	N/A	N/A	N/A	Future	Rationalization	B	Walford East to be decommissioned once its expected useful service life has been reached.	City Funded	\$432,000	2021
Sudbury	SUD-WWC- 57	York LS Upgrade	Upgrade pumps at York LS to address existing capacity concerns and accommodate new flow being redirected from Lakeview LS.	2	13.2	11.80	25	2	Existing	Increase Capacity	A+	York LS requires a capacity upgrade and forcemain investigation regardless of the new flow coming from Lakeview LS.	City Funded	\$118,000	2021
Sudbury	SUD-WWC- 58	Lagace LS Upgrade	Lagace LS to be upgraded following additional investigations into the flow coming into the station and the completion of an I/I study	2	14	42.95	57	2	Existing	Increase Capacity	B	A communications upgrade should be undertaken to complete a comprehensive analysis of the incoming flow conditions.	City Funded	\$346,000	2031
Sudbury	SUD-WWC- 59	Dufferin LS Upgrade	Install a new pump to improve system reliability	1	6.4	N/A	6.4	2	Existing	Redundancy	A+	There is only one pump at this station to improve system security an additional pump is required.	City Funded	\$118,000	2021
Sudbury	SUD-WWC- 60	Beverly LS Upgrade	Beverly LS to accommodate flow requirements following the completion of I/I study	2	28.8	7.82	37	2	Existing	Increase Capacity / Flooding Issues with LS	A+	The LS needs to be flood proofed as well as the forcemain should have a detailed condition assessment.	City Funded	\$176,000	2021
Sudbury	SUD-WWC- 61	Southview LS Upgrade	Southview LS to accommodate flow requirements following the completion of I/I study	2	58.8	49.33	108	2	Existing	Increase Capacity	B	LS requires a capacity upgrade as well as a forcemain condition assessment and upgrade.	City Funded	\$463,000	2021
Sudbury	SUD-WWC- 62	Ramsey LS Upgrade	New Ramsey LS to accommodate flow requirements following the completion of I/I study	2	32.2	16.43	49	2	Existing	Increase Capacity	B	The LS is located in close proximity to the road and an EA should be untaken to determine a new LS location and compare it to the capital required to upgrade the existing station.	City Funded	\$287,000	2021
Sudbury	SUD-WWC- 63	Decomissioning of Marcel Bouchard	Decomissioning of Marcel Bouchard LS	2	32.2	N/A	N/A	N/A	Existing	Rationalization	B	The Marcel-Bouchard Lift Station is no longer being used and decommissioning is recommended. Decommissioning strategies should be reviewed with the City of Sudbury's City Real Estate group.	City Funded	\$153,000	2021
Sudbury	SUD-WWC- 64	St. Charles Upgrade LS Upgrades	New LS with approximate footprint of 100 m2. Three submersible pumps (to provide 520 L/s at TDH 21m)	2	383	137.00	520	3	Existing	Increase Capacity	B	The EA for the Lift Station was completed in November 2011.	City Funded	\$6,721,000	2021
Sudbury	SUD-WWC- 65	Don Lita Upgrade LS Upgrades	Don Lita LS to accommodate flow requirements following the completion of I/I study	2	30.3	24.56	55	2	Existing	Increase Capacity	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$235,000	2021
Sudbury	SUD-WWC- 66	Don Lita Upgrade LS Upgrades (assumed previous upgrades occurred in 2017)	Don Lita LS will require expansion to accommodate growth	2	55	0.00	72	2	Existing	Increase Capacity	A+	Higher capacity pumps required to meet existiging required capacity	Development Funded	\$235,000	2031
Sudbury	SUD-WWC- 67	Fourth LS Upgrades	Upgrade the pumps at Fourth LS as well as rehabilitation existing deficiencies	2	15.2	16.06	31	2	Existing	Increase Capacity	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$1,616,000	2021
Sudbury	SUD-WWC- 68	Sherwood LS Upgrades	Upgrade the pumps at Sherwood LS	2	30.00	28.5	53	2	Future	Increase Capacity	A+	Higher capacity pumps required to meet existiging required capacity	Development Funded	\$235,000	2021
Garson	GAR-WWC- 69	Penman LS Upgrades	Upgrade the LS to meet current standards by adding a second pump.	1	9.00	0	9	2	Existing	Meet MOECC Requirements	A+	A detailed Condition Assessment was completed for the LS and this was the conclusion of that study.	City Funded	\$1,763,000	2021
Valley	VAL-WWC- 72	Helene LS Upgrade	Upgrade the pumps at Helene LS	2	47.76	44.67	92	2	Existing	Existing Deficiency	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$881,000	2021
Valley	VAL-WWC- 73	Helene LS Upgrade	Upgrade the Helene LS	2	93.00	18.85	112	2	Existing	Development	A+	Higher capacity pumps required to meet existiging required capacity	Development Funded	\$2,350,000	2021
Valley	VAL-WWC- 74	Spruce LS Upgrades	Upgrade the Spruce LS	2	74.00	52.15	126	2	Existing	Existing Deficiency	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$353,000	2021
Copper Cliff	CCL-WWC- 75	Nickel LS Upgrade	Upgrade pumps at Nickel LS and pump to Sudbury WWTP	3	181.00	159.00	340	3	Existing	Existing Deficiency	B	There is a EA currently underway to determine the optimal routing for the forcemain	City Funded	\$1,263,000	2021
Azilda	AZL-WWC- 76	Landry LS Upgrade	Upgrade Landry LS	2	41.30	65.8	107	3	Existing	Existing Deficiency	B	No EA is required. The Class EA requirements for the lift station have been fulfilled through the Azilda WWTP Class EA.	City Funded	\$2,211,000	2021
Azilda	AZL-WWC- 77	Laurier LS Upgrade (including forcemains)	Upgrade Laurier LS including implementation of 2 x 450 mm forcemains	3	90.10	221.1	311	3	Existing	Existing Deficiency	B	No EA is required. The Class EA requirements for the lift station have been fulfilled through the Azilda WWTP Class EA.	City Funded	\$10,797,000	2021
Azilda	AZL-WWC- 109	Marier LS Upgrade	Upgrade the pumps at Marier LS.	2	10.80	4.0	15	2	Existing	Existing Deficiency	A+	Higher capacity pumps required to meet existiging required capacity	City Funded	\$132,000	2021

System	Project ID	Project Name	Project Extents/Description	Existing Pumping		Required Pumping			Existing or Future Infrastructure Need	Trigger for the New Infrastructure	Class EA Schedule	Notes	Funding Source	Rounded Project Cost (\$)	Implementation Timing
				Number of Pumps	ECA Pump Capacity (L/s)	Additional Capacity (L/s)	Total Capacity (L/s)	Number of Pumps							
Chelmsford	CHL-WWC- 110	Belanger LS Upgrades	Upgrade the pumps at Belanger LS.	2	6.25	2.9	9	2	Existing	Existing Deficiency	A+	Higher capacity pumps required to meet existing required capacity and future required capacity.	City Funded	\$118,000	2021
Chelmsford	CHL-WWC- 111	Radisson LS Upgrades	Upgrade the pumps at Radisson LS.	2	6.50	3.2	10	2	Future	Development	A+	Higher capacity pumps required to meet future required capacity (development driven).	Development Funded	\$125,000	2031
Coniston	CON-WWC- 112	Edward LS Upgrades	Upgrade one of the pumps at Edward LS.	3	89.40	20.6	110	3	Existing	Existing Deficiency	A+	The smallest pump is to be replaced with a pump equal in capacity to the two existing larger pumps at the facility.The capacity/horsepower of the two existing pumps is unclear.	City Funded	\$147,000	2021
Coniston	CON-WWC- 113	Government LS Upgrades	New pumping station to replace existing Government LS.	2	18.10	121.9	140	2	Existing	Existing Deficiency	B	A new lift station is required since the modeled wastewater flows greatly exceed the existing station's capacity. Before undertaking this project, the City should monitor the flows at within the system and at the lift station and further refine the future projected flows.	City Funded	\$5,272,000	2021
Levack	ONL-WWC- 120	Fraser LS Upgrades	Upgrade the pumps at Fraser LS	2	27.00	11.0	38	2	Existing	Existing Deficiency	A+	An existing deficiency has been identified through the wastewater modeling exercise; however, no overflows have been documented at the lift station. It is recommended that the City undertake flow monitoring in advance of replacing the pumps.	City Funded	\$140,000	2021
Wahnapitae	WAH-WWC- 121	Riverside LS	Upgrade the pumps at Riverside LS	2	52.00	90.0	142	2	Existing	Existing Deficiency	A+	An existing deficiency has been identified through the wastewater modeling exercise; however, no overflows have been documented at the lift station. It is recommended that the City undertake flow monitoring in advance of replacing the pumps.	City Funded	\$191,000	2021

TOTAL	\$42,025,000
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TOTAL	\$571,932,000
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