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6 VOLUME 6: PREFERRED WATER SYSTEM SOLUTIONS AND CAPITAL IMPLEMENTATION PROGRAM

Upon completion of a baseline information and water systems review, a gap analysis to identify existing and future water system deficiencies, and an alternative solutions development and evaluation process, preferred servicing solutions were selected for the six (6) water systems within the CGS. [Volume 2](#) presented the existing systems and an overview of their gap analysis findings, and [Volume 4](#) outlined the alternative solutions developed to address the deficiencies identified in each water system, and the evaluation undertaken to arrive at preferred servicing solutions for the systems.

The following subsections will summarize the water supply and distribution servicing solutions that were selected as preferred options to address existing and future infrastructure deficiencies as well as timing.

6.1 SUMMARY OF PREFERRED WATER SYSTEM SOLUTIONS

The following subsections provide an overview of the selected preferred alternatives for water supply, as well as water distribution and storage within the CGS.

WATER SUPPLY

Table 6-1 summarizes the recommended servicing solutions selected to address existing and future water supply deficiencies in each CGS water system. Further details can be found in the system-specific subsections.

Table 6-1 Preferred Water Supply Solutions

SYSTEM	WATER SUPPLY RECOMMENDATION
Dowling	Do Nothing
Falconbridge	Do Nothing
Onaping-Levack	Do Nothing
Sudbury	Optimize Existing System
Valley	Optimize Existing System
Vermilion	Do Nothing

WATER DISTRIBUTION AND STORAGE

Table 6-2 summarizes the recommended servicing solutions selected to address existing and future water storage and distribution deficiencies in each CGS water system. Further details can be found in the system-specific subsections.

Table 6-2 Preferred Water Storage and Distribution Solutions

SYSTEM	WATER STORAGE RECOMMENDATION	WATER DISTRIBUTION RECOMMENDATION
Dowling	Do Nothing	Extend/Replace Existing System

SYSTEM	WATER STORAGE RECOMMENDATION	WATER DISTRIBUTION RECOMMENDATION
Falconbridge	New Supplemental Storage Facility	Extend/Replace Existing System
Onaping-Levack	Do Nothing	Extend/Replace Existing System
Sudbury	Optimize Existing Storage through New System Configuration	Extend/Replace Existing System
Valley	Optimize Existing Storage through New System Configuration	Extend/Replace Existing System
Vermilion	Optimize Existing System	Extend/Replace Existing System

In addition to the system specific water supply, storage, and distribution recommendations made for the CGS water systems, Appendix 6-A details the system-wide recommendations made for the CGS including studies, surveys, and monitoring efforts. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded.

6.1.1 DOWLING WATER SYSTEM

The following subsection details the Dowling Water System watermain recommendations and the costs associated with each project. Figure 6-1 shows a map containing all watermain recommendations.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Dowling Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded projects.

Figure 6-1 Dowling Water System: Recommended Servicing Solutions

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6.1.2 FALCONBRIDGE WATER SYSTEM

The following subsection details the Falconbridge Water System storage and distribution recommendations, and the costs associated with each project. Figure 6-2 shows a map containing all recommendations.

WATER STORAGE AND DISTRIBUTION

Appendix 6-B summarizes the water storage and distribution projects recommended within the Falconbridge Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

As mentioned, no water pumping capacity was identified to be required in the Falconbridge Water System. That said, it should be noted that the booster pumps recommended for implementation are required to improve fire flow availability.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Falconbridge Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

Figure 6-2 Falconbridge Water System: Recommended Servicing Solutions

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6.1.3 ONAPING-LEVACK WATER SYSTEM

The following subsection details the Onping-Levack Water System watermain recommendations, and the costs associated with each project. Figure 6-3 shows a map containing all recommendations.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Onaping-Levack Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

Figure 6-3 Onaping-Levack Water System: Recommended Servicing Solutions

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6.1.4 SUDBURY WATER SYSTEM

The following subsection details the Sudbury Water System supply and watermain recommendations, and the costs associated with each project. Figure 6-4 shows a map containing all recommendations.

It should be noted that although no recommendations were made to specifically address existing and future water storage in the Sudbury Water System, project SUD-WC-172 has been included to address the noted watermain break occurrences and the Ellis Reservoir capacity limitation simultaneously.

WATER SUPPLY

Appendix 6-B summarizes the water supply projects recommended within the Sudbury Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Sudbury Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

Figure 6-4 Sudbury Water System: Recommended Servicing Solutions

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6.1.5 VALLEY WATER SYSTEM

The following subsection details the Valley Water System supply, storage, distribution, and watermain recommendations, and the costs associated with each project. Figure 6-5 shows a map containing all recommendations.

No details are summarized for preferred solutions regarding water pumping in the Valley Water System. The Do Nothing alternative, which was selected as the preferred solution for this infrastructure category, consists of retaining existing infrastructure and making no changes to existing operations. Therefore, no costs or implementation details have been identified in accordance with this solution.

WATER SUPPLY

Appendix 6-B summarizes the water supply projects recommended within the Valley Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

WATER STORAGE AND DISTRIBUTION

Appendix 6-B summarizes the water storage and distribution projects recommended within the Valley Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

As mentioned, no water pumping capacity was identified to be required in the Valley Water System. That said, it should be noted that project VAL-WC-159 is recommended to make full use of the existing storage, by delaying or eliminating new storage and the need for a pressure reduction station. The project also improves water quality and reduces pressure and leakage throughout the Valley Water System.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Valley Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

Figure 6-5 Valley Water System: Recommended Servicing Solutions

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6.1.6 VERMILION WATER SYSTEM

The following subsection details the Vermilion Water System watermain recommendations, and the costs associated with each project. Figure 6-6 shows a map containing all recommendations.

WATERMAINS

Appendix 6-B summarizes the watermain projects recommended within the Vermilion Water System. It should be noted that the second segment of the “Project ID” identifies the funding source for the project; WC referring to City funded, and WD referring to development funded.

Figure 6-6 Vermilion Water System: Recommended Servicing Solutions

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6.2 APPROVAL REQUIREMENTS

Under the MEA's Municipal Class EA process, by which this Master Plan abides, all projects deemed Schedule B and C, as described in [Volume 1](#), have the requirement of proceeding through a project specific environmental assessment planning process prior to implementation. Provided in the tables in Appendix 6-B are the Class EA requirements necessary for each project. Schedule B and C projects require an additional Class EA study.

6.3 RECOMMENDATIONS REGARDING FIRE FLOW SUPPLY

Below are additional general recommendations that the City should undertake to improve future water system connections / allocation. These recommendations are based on our assessment of the future infrastructure required to supply Fire Flow.

- 1 Review current by-laws and/or the existing development review process, with a focus on the linkages between the Planning, Building, Public Works and Fire Departments. This review should consider increasing level of detail of different studies prepared in support of water system management and development control. For example:
 - At the Master Plan or district plan level, trunk and secondary mains should enable the system to supply the required fire flow while maintaining the best water quality possible, using right-sized mains and looping whenever possible.
 - At the Subdivision or Operations plan level, distribution mains (smaller pipes) should ensure distribution Operators will end-up with a system that can maintain good water quality. The RFF should attempt to meet the Master Plan targets using Building separations and/or design features. The modelling report may also include efficient flushing procedures that meet or exceed a shear stress criterion. The net results is to ensure pipes are not too large (e.g.: reduce water age and help maintain its quality) or too small (e.g.: supply the fire flow target or more).
- 2 Update the development review process to manage the required fire flow targets for each land use. If a proponent's RFF exceed the Master Plan targets and/or the AFF based on a hydrant flow test (whichever is greater), consider adapting Building separations and/or construction methods and enclosing or providing new distribution system loops instead of over-sizing the proposed mains. This can be accomplished in a number of complementary ways:
 - Review areas with residential zoning to compare worst-case (capped) fire demands to available fire flows, obtained from computer models. If the predicted "available fire flows" are significantly greater than 75L/s, then consider reducing main diameters in this area when relining or replacing them over the next few decades.
 - The CGS can check that new Buildings' construction and/or fire suppression methods will limit the required fire demands to the target or AFF, whichever is greater;
 - Consider implementing a general requirement for 2-hour fire rated walls between groups of no more than 4 dwellings. Alternatively, consider capping the largest residential fire flow to 150L/s. Appendix A shows this has been done in Ottawa and Vancouver; and,
 - Buildings requiring fire flows greater than those provided above can be designed with supplemental provisions, such as private sprinkler systems, fire-breaks, etc.

In the context of the Sudbury Water Master Plan, important discussions have already taken place to determine the appropriate level of service and fire flow targets, as documented herein. The target fire flows are benchmarks used to evaluate Alternatives that will improve the "level of service" going forward, balancing the cost of water system improvements to the community and the needs of future developments.

6.4 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.

6.4.1 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.

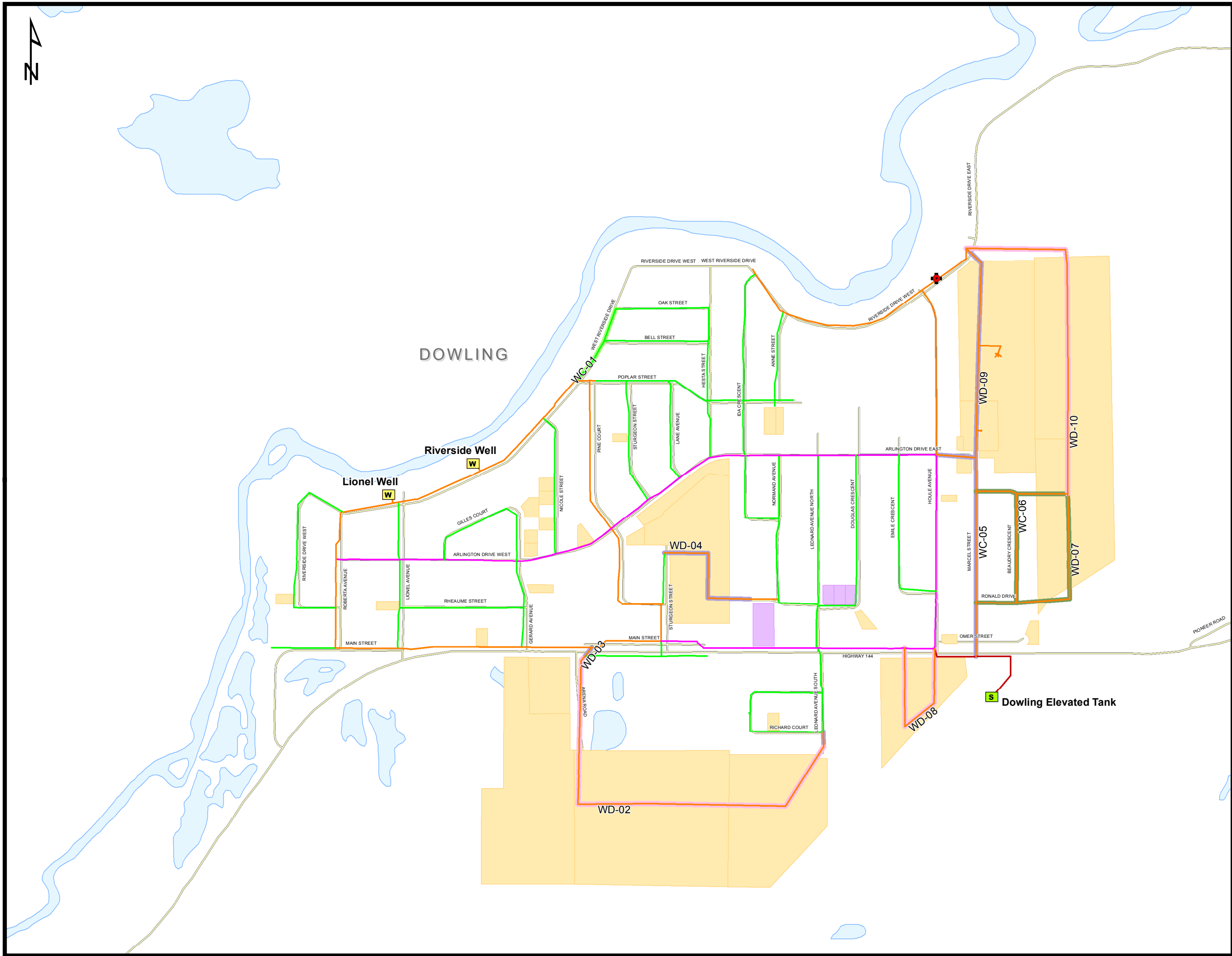
PLANNING

- 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.
-

6.4.2 BEST PRACTICES FOR INFRASTRUCTURE PLANNING & USAGE

- 1 To prioritize the efficient use of water, including:
 - exploring the most efficient means of water distribution;
 - encouraging increased water efficiency and reductions in water use;
 - supporting opportunities for water recycling, reuse, and on-site collection and

- storage, where feasible; and
 - developing green building standards that set specific targets and requirements for water efficiency within new developments, consistent with this Plan.
- 2 To recognize, prioritize and respond to water-related issues caused by climate change, including impacts that may affect water quantity and quality.
 - 3 To undertake a water use audit to identify measures to reduce the non-revenue component of the City's water consumption and to improve overall city wide water use efficiency.
 - 4 To promote groundwater and source water protection for wells through the implementation of the natural heritage and environmental policies contained in this Plan.
 - identify and address inefficiencies in the water system in order to conserve water resources, including leaking pipes and infrastructure, and ensure water quality;
 - identify and address significant seepage and leakage issues in the wastewater network to increase efficiency and minimize groundwater impacts and protect aquifers;
 - encourage and support public awareness programs to reduce water use, prevent pollution and increase water resource awareness;
 - undertake regular servicing studies to understand water capacity and needs; and,
 - design Sudbury's water system to appropriately respond to anticipated impacts from global climate change.
 - 5 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 watermains 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.



Legend

- W** Well
- S** Storage Tank
- New Check Valve (CV)
- New Pressure Relief Valve (PRV)
- BPS** Booster Pumping Station (BPS)
- WTP** Water Treatment Plant (WTP)
- Hydrant Test
- Road
- Waterbody
- Pipe: Diameter (mm)
 - <= 50
 - <= 150
 - <= 200
 - <= 300
 - <= 400
 - <= 600
 - > 600
- Alternative Installation Year
 - 2021
 - 2026
 - 2031
 - 2041
 - Ultimate
- Pipe: Recommendation to Reline
- Vacant Land Inventory
 - ICI
 - Residential



Project No. 121-23026-00

November 21 2016

Sudbury Water and Wastewater Master Plan

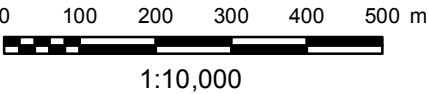
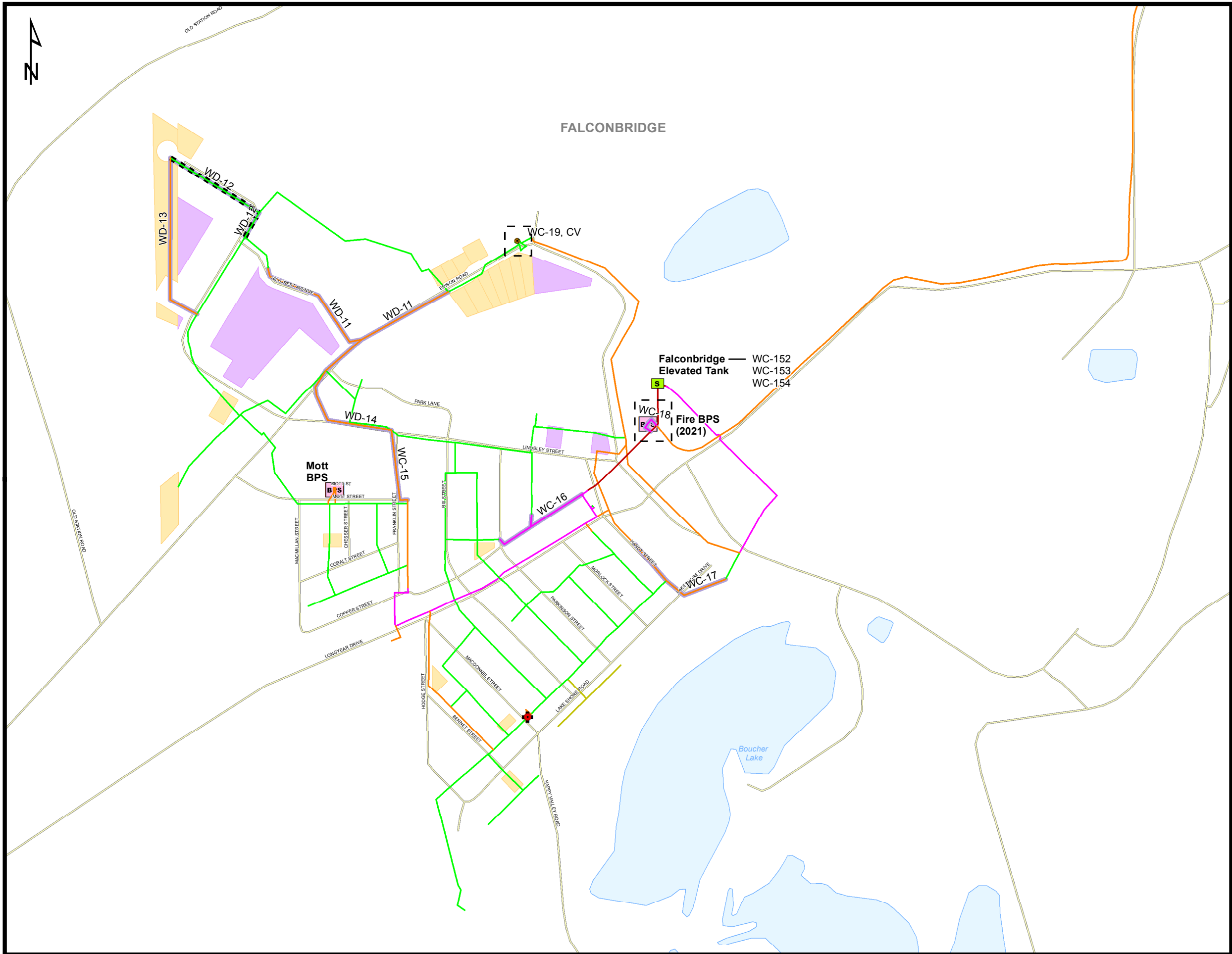


Figure 6-1

Dowling Water System Recommended Water Projects



Legend

- W** Well
- S** Storage Tank
- New Check Valve (CV)
- New Pressure Relief Valve (PRV)
- BPS** Booster Pumping Station (BPS)
- WTP** Water Treatment Plant (WTP)
- Hydrant Test
- Road
- Waterbody
- Pipe: Diameter (mm)
 - <= 50
 - <= 150
 - <= 200
 - <= 300
 - <= 400
 - <= 600
 - > 600
- Alternative Installation Year
 - 2021
 - 2026
 - 2031
 - 2041
 - Ultimate
- Pipe: Recommendation to Reline
- Vacant Land Inventory
 - ICI
 - Residential



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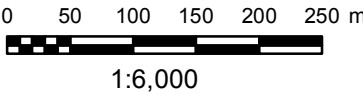
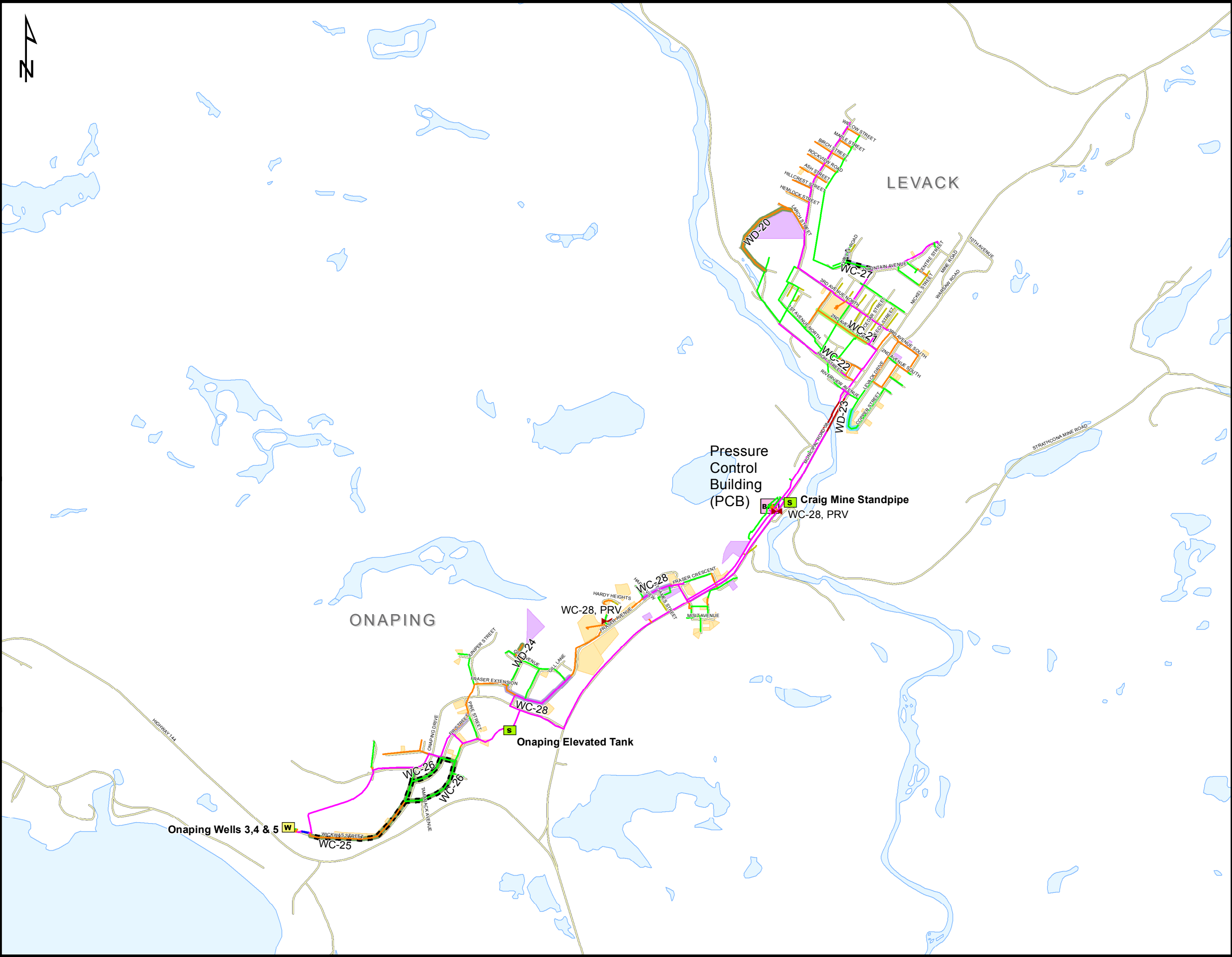


Figure 6-2

Falconbridge Water System Recommended Projects



Legend

W

Well

S

Storage Tank

New Check Valve (CV)

New Pressure Relief Valve (PRV)

BPS

Booster Pumping Station (BPS)

WTP

Water Treatment Plant (WTP)

Hydrant Test

Road

Waterbody

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Alternative Installation Year

2021

2026

2031

2041

Ultimate

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Pipe: Recommendation to Reline

Vacant Land Inventory

ICI

Residential

Greater Grand Sudbury



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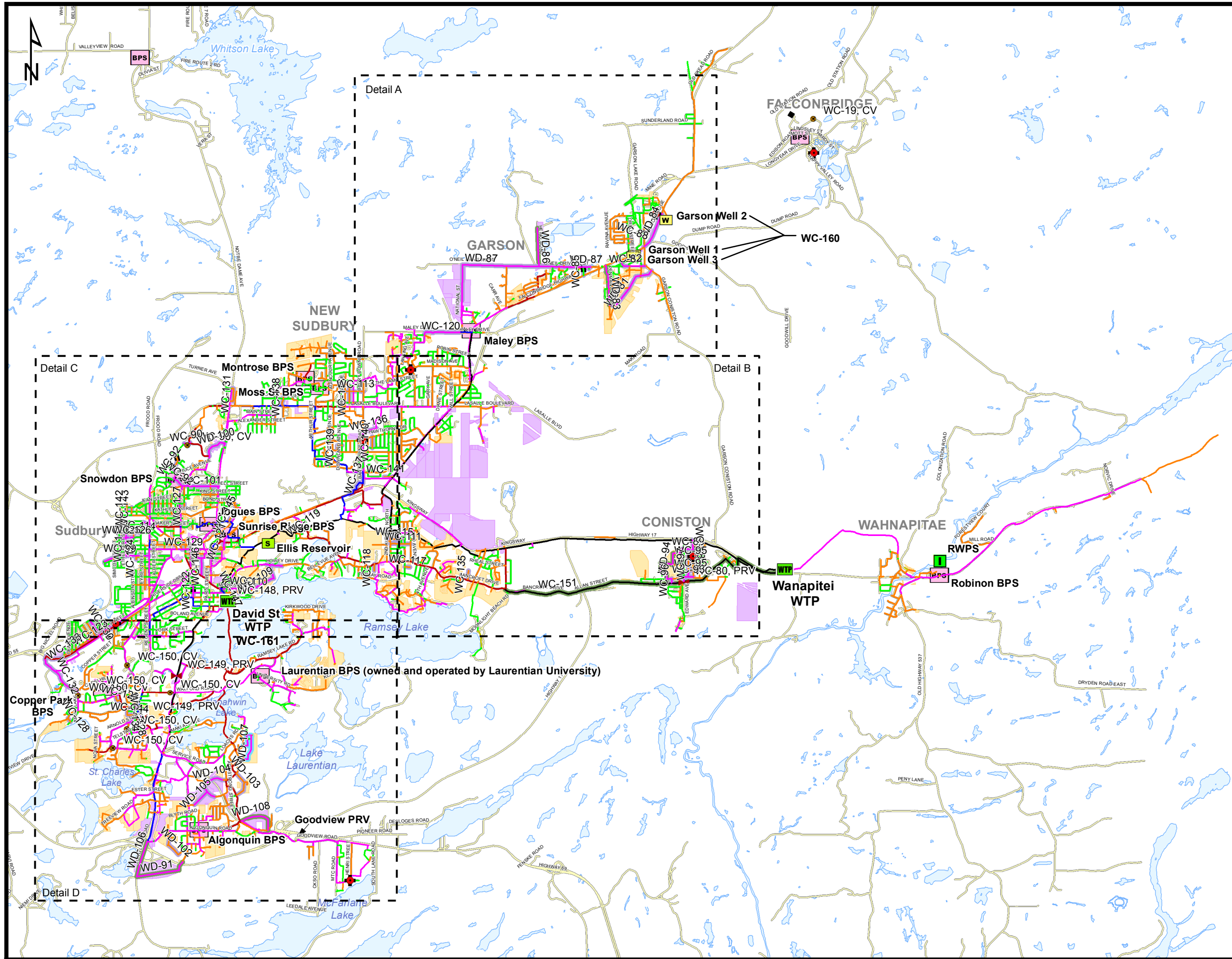
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Figure 6-3

Onaping & Levack Water System Recommended Water Projects



Legend

- W** Well
- S** Storage Tank
- I** Raw Water Pumping Station (RWPS)
- New Check Valve (CV)
- New Pressure Relief Valve (PRV)
- BPS** Booster Pumping Station (BPS)
- WTP** Water Treatment Plant (WTP)
- Hydrant Test
- Road
- Railway
- Waterbody

Pipe: Diameter (mm)

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

Alternative Installation Year

- 2021
- 2026
- 2031
- 2041
- Ultimate

Pipe: Recommendation to Reline

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Vacant Land Inventory

- ICI
- Residential



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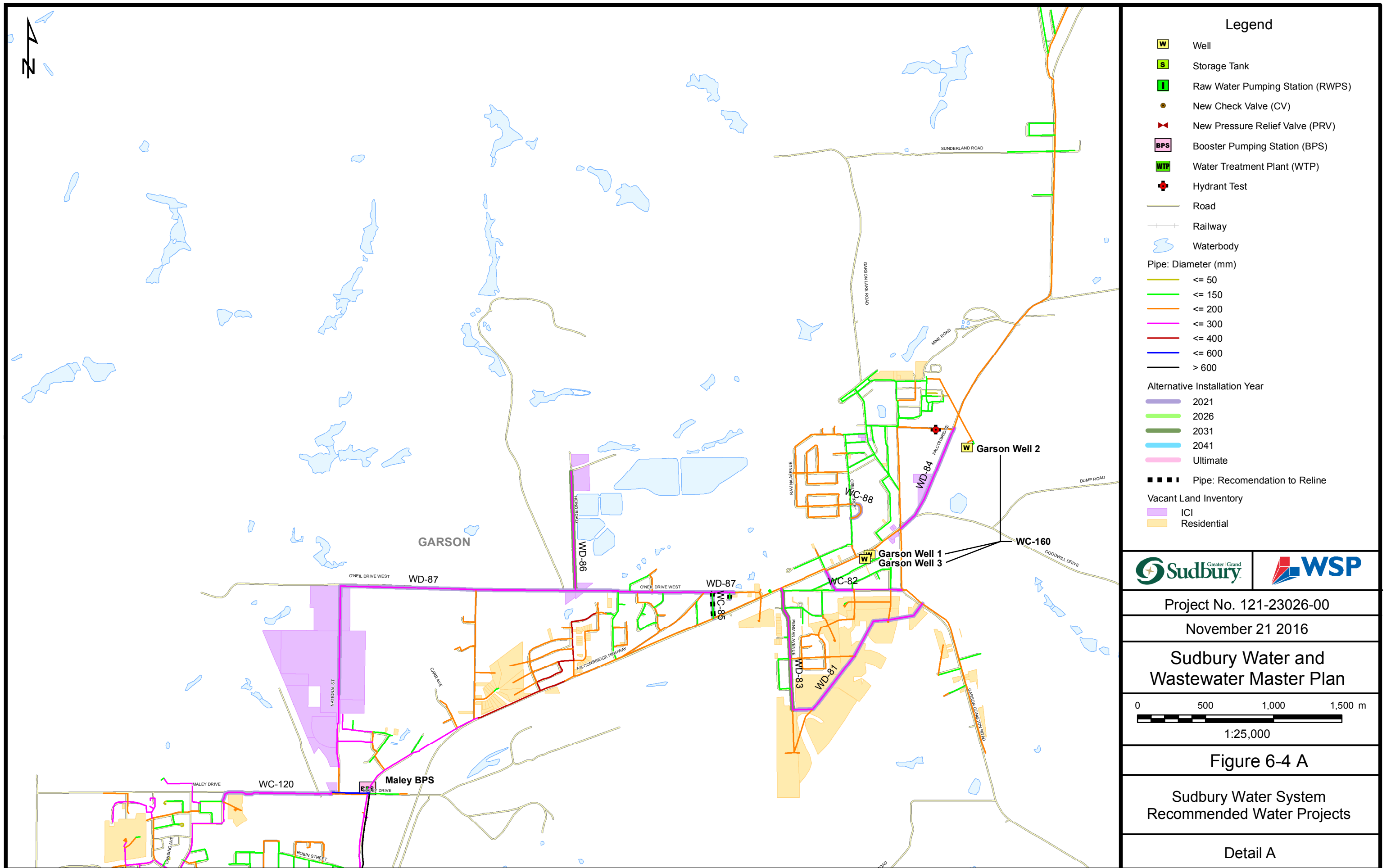
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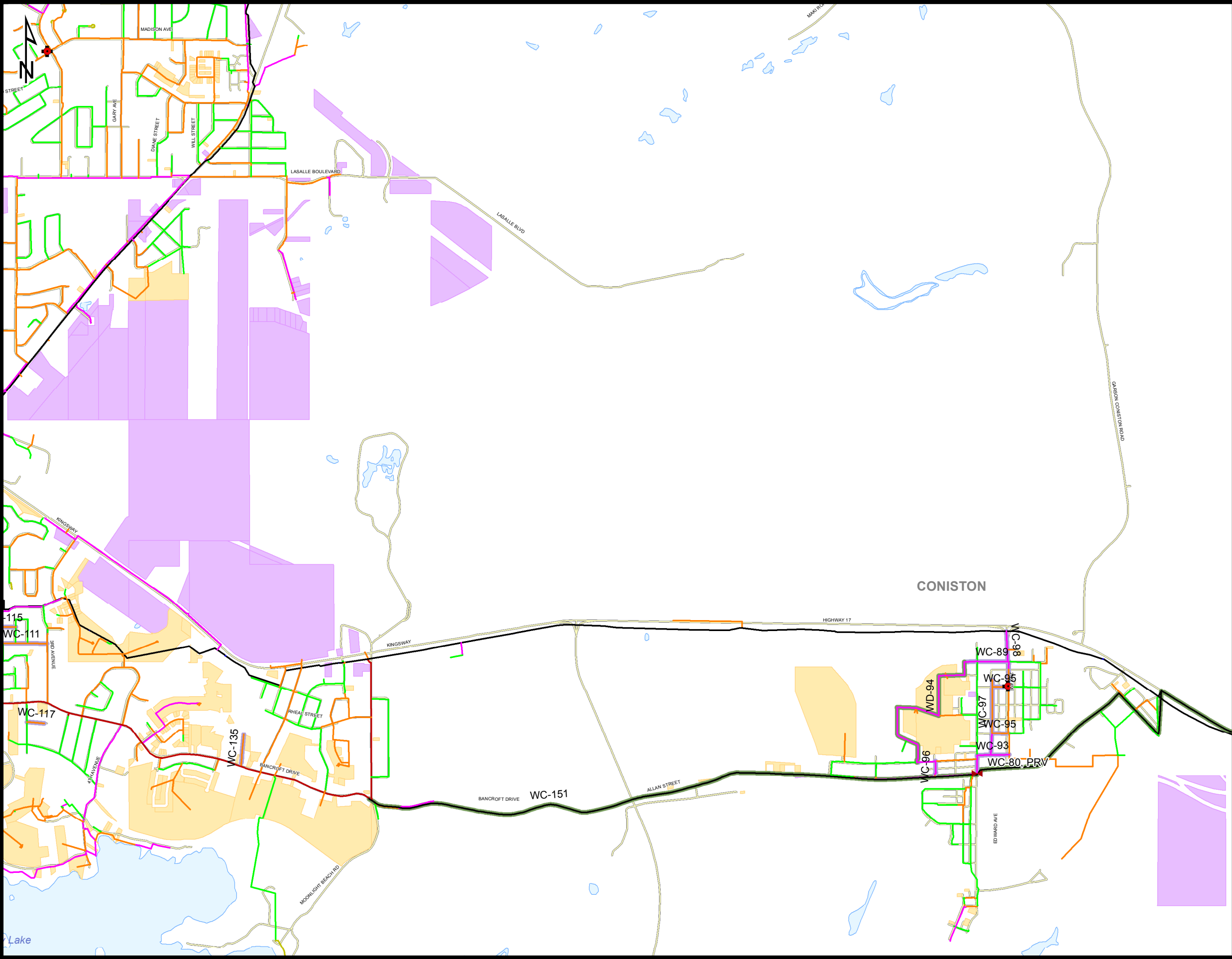
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Figure 6-4

Sudbury Water System Recommended Water Projects





Legend

- W** Well
- S** Storage Tank
- I** Raw Water Pumping Station (RWPS)
- New Check Valve (CV)
- New Pressure Relief Valve (PRV)
- BPS** Booster Pumping Station (BPS)
- WTP** Water Treatment Plant (WTP)
- Hydrant Test
- Road
- Railway
- Waterbody
- Pipe: Diameter (mm)
 - <= 50
 - <= 150
 - <= 200
 - <= 300
 - <= 400
 - <= 600
 - > 600
- Alternative Installation Year
 - 2021
 - 2026
 - 2031
 - 2041
 - Ultimate
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- Vacant Land Inventory
 - ICI
 - Residential



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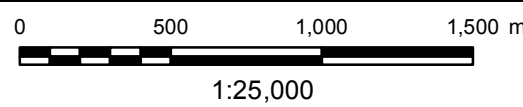
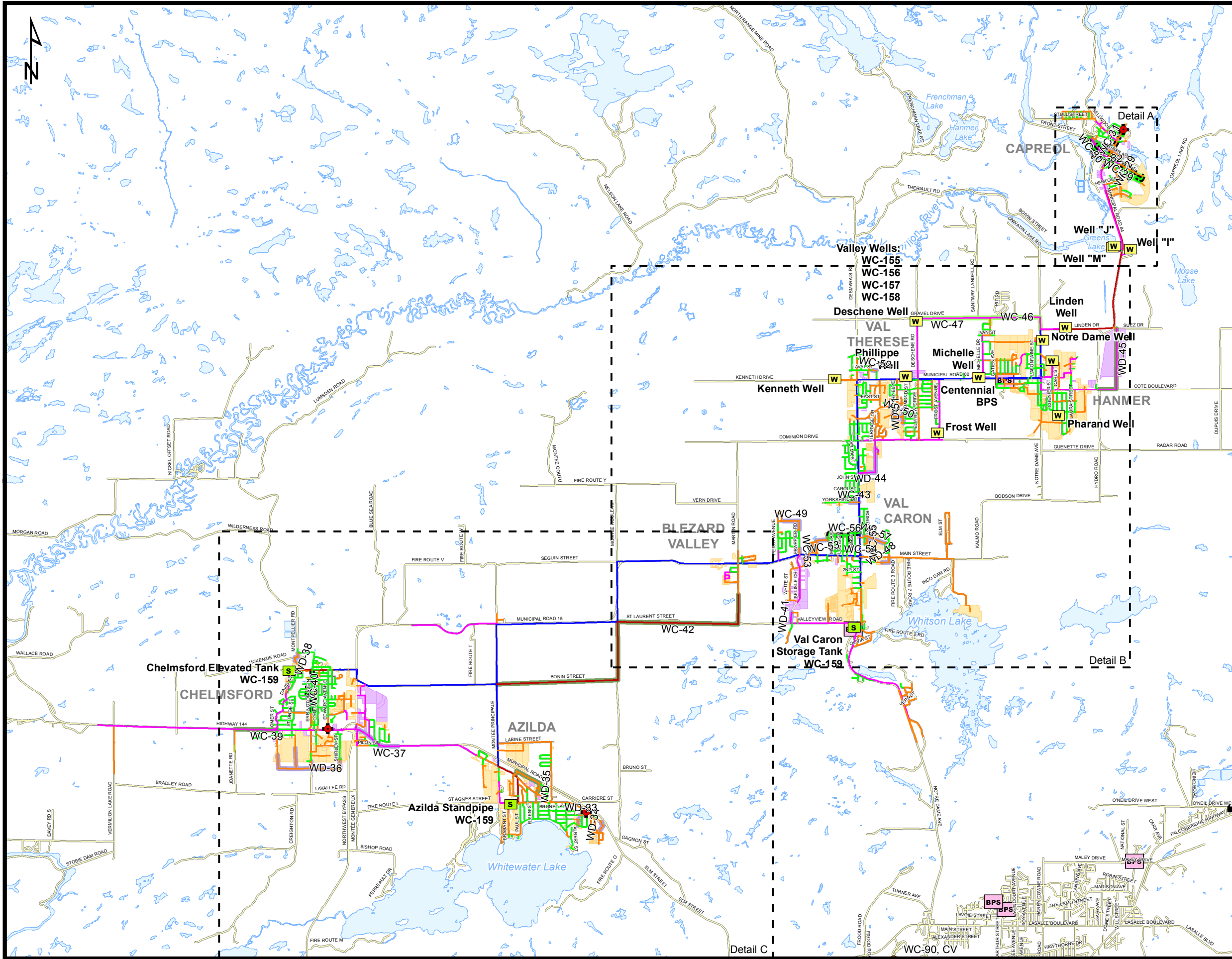


Figure 6-4B

Sudbury Water System Recommended Water Projects

Detail B



Legend

W

Well

S

Storage Tank

New Check Valve (CV)

New Pressure Relief Valve (PRV)

BPS

Booster Pumping Station (BPS)

WTP

Water Treatment Plant (WTP)

Hydrant Test

Road

Waterbody

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Alternative Installation Year

2021

2026

2031

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Vacant Land Inventory

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Sudbury Water and Wastewater Master Plan

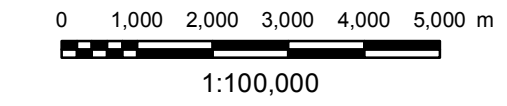
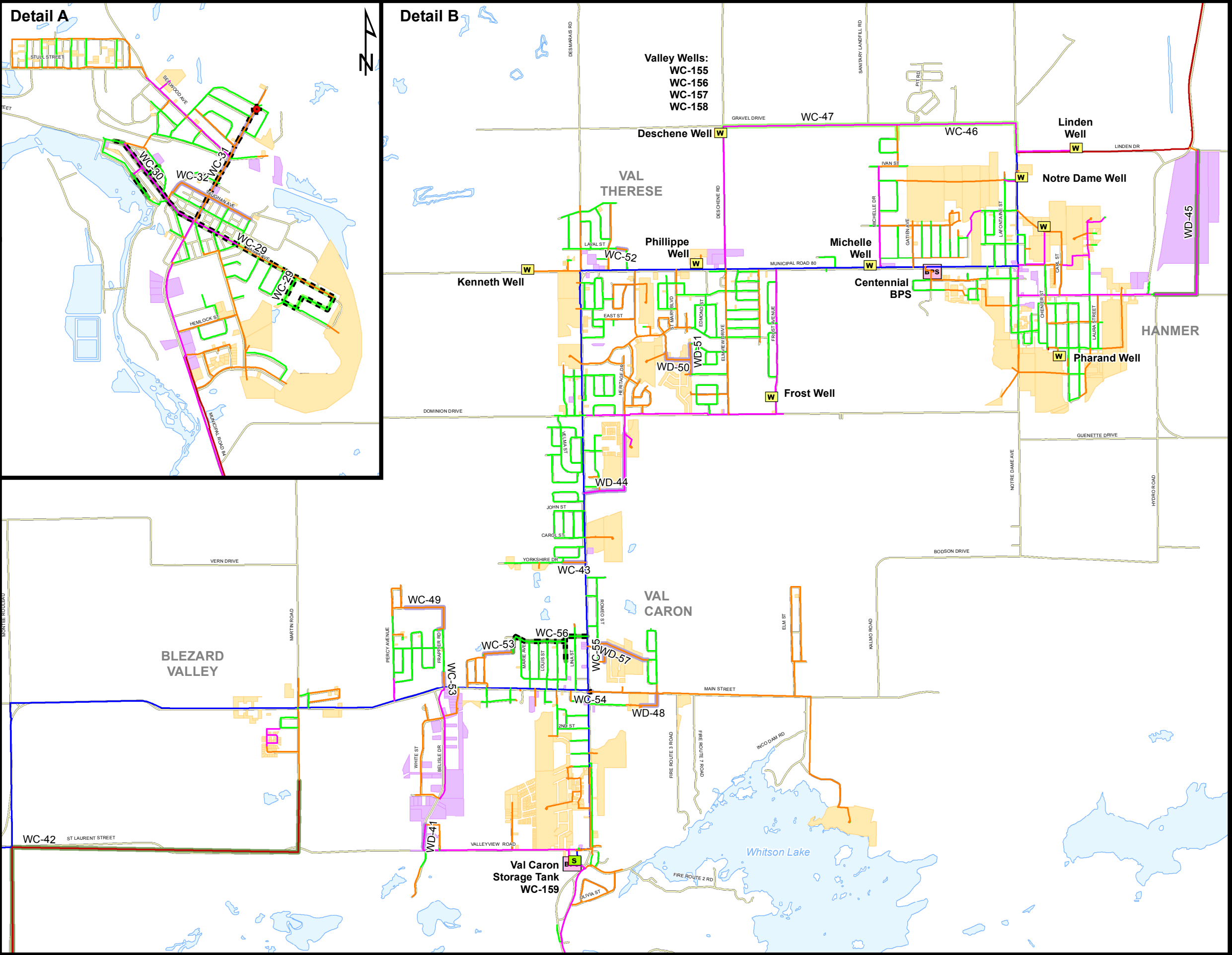


Figure 6-5

Valley Water System
Recommended Water Projects



Legend

W

Well

S

Storage Tank

New Check Valve (CV)

New Pressure Relief Valve (PRV)

BPS

Booster Pumping Station (BPS)

WTP

Water Treatment Plant (WTP)

Hydrant Test

Road

Waterbody

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Alternative Installation Year

2021

2026

2031

2041

Ultimate

■ ■ ■

Pipe: Recommendation to Reline

Vacant Land Inventory

ICI

Residential

Greater Grand Sudbury

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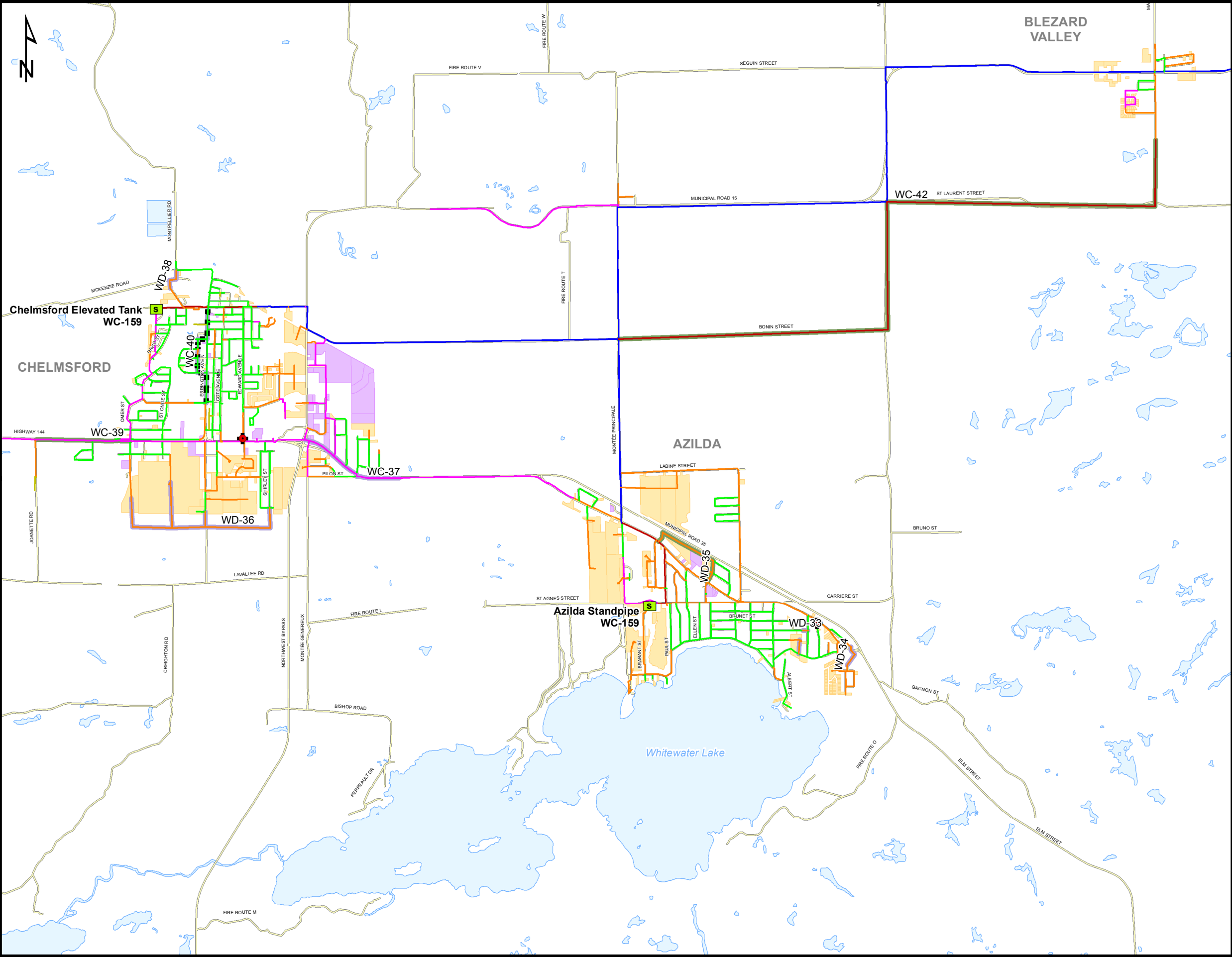
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Figure 6-5 A & B

Valley Water System Recommended Water Projects

Detail A and B



Legend

W

Well

S

Storage Tank

New Check Valve (CV)

New Pressure Relief Valve (PRV)

BPS

Booster Pumping Station (BPS)

WTP

Water Treatment Plant (WTP)

Hydrant Test

Road

Waterbody

Pipe: Diameter (mm)

<= 50

<= 150

<= 200

<= 300

<= 400

<= 600

> 600

Alternative Installation Year

2021

2026

2031

2041

Ultimate

Pipe: Recommendation to Reline

Vacant Land Inventory

ICI

Residential



Project No. 121-23026-00

November 21 2016

Sudbury Water and Wastewater Master Plan

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Figure 6-5 C

Valley Water System Recommended Water Projects

Detail C

APPENDIX 6-A

SYSTEM WIDE WATER STUDIES





Recommended Water Studies

System	Project ID	Project Name	Project Extents/Description	Trigger for the Study	Funding Source	Total Project Cost (\$)	Implementation Timing (Year by Which Study is to be Complete)
Valley Water	VAL- WC -163	Valley well monitoring	Valley wells source water protection plan and monitoring		City Funded	\$100,000	2020
Sudbury Water	SUD- WC -164	Garson well monitoring	Garson wells source water protection plan and monitoring		City Funded	\$100,000	2020
City of Greater Sudbury	CGS- WC -165	CGS Leakage Reduction Measures	Acoustic leak detection survey program on non-plastic pipes	Locate potential sources of leakage and aim to reduce the volume of leakage through presure management	City Funded	\$50,000	2018
						\$50,000	2019
						\$50,000	2020
						\$50,000	2021
						\$50,000	2022
	CGS- WC -166		Detailed DMA study, pressure management study, break history review, internal leak/break record system audit and metering program review		City Funded	\$75,000	2018
						\$75,000	2019
	CGS- WC -167		Implementation of DMA (Capital delivery of the project)		City Funded	\$55,000	2019
						\$120,000	2020
						\$300,000	2021
						\$300,000	2022
	CGS- WC -168		Implementation of Pressure Management Measures (in-house costs)		City Funded	\$25,000	2018
	CGS- WC -169		Implementation of internal leak/break record system improvements		City Funded	\$5,000	2018
						\$5,000	2019
						\$100,000	2020
	CGS- WC -170		Implementation of metering program (meter testing and replacement program – this is low based on the current number of meters)		City Funded	\$100,000	2021
		\$100,000	2022				
		\$100,000	2022				
CGS- WC -171	Water testing and monitoring	Water Testing (Collection and organization of chlorine residual data)		City Funded	\$100,000	2021	
		Water Quality Modelling		City Funded	\$150,000	2021	
Sudbury Water	SUD- WC -172	Sudbury Pressure Control Study	Confirm boundaries and set-points for proposed Pressure Management Area (PMA) / District Meter Area (DMA)	Reduce break frequency and leakage in the system. Allow existing Ellis storage to be top-filled without over-pressurising distribution	City Funded	\$150,000	2021
Sudbury Water	SUD- WC -173	David Street Water Treatment Plant Operations and Maintenance Review	A study is required to identify solutions to the City's existing operations and maintenance issues and to address existing moisture and corrosion issues.		City Funded	\$100,000	2021
Vermillion Water	SUD- WC -174	Infrastructure Due Dilligence Study	A study is required to confirm the ownership of all the assets in the Vermillion Water Distribution System. The study is being recommended to support any future replacement and rehabilitation cost sharing.		City Funded	\$40,000	2021
Onaping-Levack Water	SUD- WC -175	Onaping Tank Cycling Study	A study is required to evaluate the water demands by the Craig Mine. The study should include a hydraulic analysis the water system including booster pumps and storage.		City Funded	\$80,000	2021
TOTAL						\$2,330,000	

* DMA = District Meter Area

APPENDIX 6-B

RECOMMENDED WATER INFRASTRUCTURE PROJECTS





City of Sudbury Water and Wastewater Master Plan
Recommended Water Infrastructure Projects
Linear Water Projects

System	Project ID	Project Name	Project Extents/Description	Existing Watermains			Required Watermains			Trigger for the New Infrastructure	Class EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing (Project end date)
				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Dowling Water	DOW-WC -01	Riverside Drive Loop	New watermain along Riverside Drive between Oak Street and Poplar Street. The main will connect to the dead-ends on Oak Street, Bell Street, and Poplar Street.	N/A	N/A	N/A	214	150	PVC	Improve Fire Flow Availability	A+	City Funded	\$360,000	2026
Dowling Water	DOW-WD -02	Arena Road / Leonard Avenue South Loop	New watermain South from Main Street along Arena Road to create a loop through the future proposed residential development. The watermain will connect to the existing main along Leonard Avenue South.	N/A	N/A	N/A	1,196	200	PVC	Improve Fire Flow Availability and Service New Proposed Residential Development	A+	Development Funded	\$2,130,000	2061
Dowling Water	DOW-WD -03	Main Street / Arena Road Loop	New watermain South-West from Main street towards the proposed watermain along Arena Road. The watermain will connect to the existing 150 mm on south side of Main Street. The hydrant on the north side of Main Street must be relocated.	N/A	N/A	N/A	28	200	PVC	Improve Fire Flow Availability and Service New Proposed Residential Development	A+	Development Funded	\$50,000	2021
Dowling Water	DOW-WD -04	Sturgeon Street/Dana Street Loop	New watermain joining the existing watermains on Dana Street and Sturgeon Street. The watermain will provide servicing to future residential development.	N/A	N/A	N/A	349	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$620,000	2021
Dowling Water	DOW-WC -05	Marcel Street Loop	New watermain along Marcel Street joining the existing watermains on Arlington Drive East and Main Street East.	N/A	N/A	N/A	531	200	PVC	Improve Fire Flow Availability & Service Existing Residential Development	A+	Cost Share	\$950,000	2021
Dowling Water	DOW-WC -06	Beaudry Crescent Loop	New watermain along Beaudry Crescent and Ronald Drive to connect to the proposed watermain on Marcel Street. A tee connection will be required at the Beaudry Crescent-Ronald Drive intersection. A tee connection will be required at the North-East corner of Beaudry Crescent for future development.	N/A	N/A	N/A	511	200	PVC	Improve Fire Flow Availability & Service Existing Residential Development	A+	Cost Share	\$910,000	2031
Dowling Water	DOW-WD -07	North of Marcel Street and Beaudry Crescent Loop	New watermain extending East and parallel to Marcel Street looping North from Ronald Drive to Riverside Drive West.	N/A	N/A	N/A	557	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$990,000	2031
Dowling Water	DOW-WD -08	Houle Avenue and Highway 144 Loop	New watermain extending South of Main Street from Houle Avenue to create loop through the future residential development on the south side of Main Street East.	N/A	N/A	N/A	455	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$810,000	2061
Dowling Water	DOW-WD -09	Marcel Street Watermain	New watermain along Arlington Drive East and along Marcel Street, extending north towards Riverside Drive West.	N/A	N/A	N/A	674	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$1,200,000	2021
Dowling Water	DOW-WD -10	Riverside Drive E and and Beaudry Crescent Loop	New watermain extending east and parallel to Houle Avenue, connecting to the existing watermain along Riverside Drive East. The watermain will create a loop through future residential development.	N/A	N/A	N/A	919	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$1,640,000	2061
Falconbridge Water	FAL- WD -11	Edison Road / Hillcrest Avenue Loop	New watermain to connect existing watermains on Edison Road and Hillcrest Avenue, and extend north east on Edison Road	N/A	N/A	N/A	365	200	PVC	Service New Proposed Residential & ICI Developments and Improve System Security	B	Development Funded	\$700,000	2021
Falconbridge Water	FAL- WD -12	Lindsley Street Watermain Lining	Line watermain along Lindsley Street from Hillcrest Avenue to end of Lindsley Street.	212	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability & Improve System Security & Service Proposed Residential and ICI Development	A	Development Funded	\$210,000	2021
Falconbridge Water	FAL- WD -13	North Loop Lindsley Street	New watermain extending South-East to connect the existing watermains at the North-end and South loop of Lindsley Street. The watermain will create a loop through future residential development.	N/A	N/A	N/A	316	200	PVC	Service new proposed residential and ICI development	B	Development Funded	\$610,000	2021



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Falconbridge Water	FAL- WD -14	Lindsley Street, Edison Road, Hillcrest Avenue loop	New watermain from Edison Road and Hillcrest Avenue, extending South-West to merge onto Lindsley Street. The watermain will extend to the corner of Lindsley Street and Franklin Street.	N/A	N/A	N/A	199	200	PVC	Service New Proposed Residential and ICI Developments. Improve Fire Flow Availability for Mott Booster zone & Improve System Security	A+	Development Funded	\$380,000	2021
				81	150	CI	81	200					\$160,000	
Falconbridge Water	FAL- WC -15	Franklin Street Loop	New watermain along Franklin Street, from Lindsley Street to Mott Street.	N/A	N/A	N/A	120	200	PVC	Service New Proposed Residential & ICI Developments and Improve System Security	A+	City Funded	\$230,000	2021
Falconbridge Water	FAL- WC -16	Copper Street Loop	New watermain along Copper Street from Parkinson Street, North-East to connect with the existing watermain west of Hardy Street. A tee connection will be required on Parkinson Street, North of Cooper Street.	N/A	N/A	N/A	158	300	PVC	Improve Fire Flow Availability & Improve System Security	A+	City Funded	\$360,000	2021
		Parkinson St. upgrade	Upgrade existing watermain on Parkinson Street, extending north from Longyear Drive	19	50	Copper	19	300					\$40,000	
Falconbridge Water	FAL- WC -17	Hardy Street Loop	New watermain along Hardy Street towards Lakeshore Drive to connect to the existing watermain east of Lakeshore Drive.	N/A	N/A	N/A	185	200	PVC	Improve Water Pressure & Provide Security of Supply	B	City Funded	\$360,000	2021
Falconbridge Water	FAL- WC -18	Falconbridge New Fire Pump	Implement a fire pump near the east end of Lindsley Street and an isolation valve on the exiting watermain at the same location.	N/A	N/A	N/A	40	300	PVC	Improve Fire Flow Availability	B	City Funded	\$90,000	2021
Falconbridge Water	FAL- WC -19	Mott Booster zone check valve	Add 150mm check valve or replace existing isolation valve (currently part-open) to supplement fire flow to Mott Booster zone.	N/A	N/A	N/A	N/A	150	N/A	Improve fire flow available to Mott Booster zone	A	City Funded	\$10,000	2021
Onaping Levack Water	ONL- WD -20	High Street Loop No.2	New watermain along High Street, to connect the existing watermains on High Street and Larch Street. The watermain will create a loop through the future ICI development area	N/A	N/A	N/A	522	200	PVC	Service New Proposed ICI Development	A+	Development Funded	\$1,000,000	2031
Onaping Levack Water	ONL- WC -21	2nd Avenue North Loop & Upgrade	New watermain and upgrade along 2nd Avenue North between Church Street and Beech Street.	N/A	N/A	N/A	92	200	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$160,000	2026
				219	75	GI	219	200					\$390,000	
Onaping Levack Water	ONL- WC -22	High Street Loop No.1	New watermain along High Street to connect the existing watermain to 1st Avenue Crescent.	N/A	N/A	N/A	179	300	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$380,000	2026
			Upsize existing 200 mm watermain on High Street to a 300 mm.	6	200	PVC	6	300					\$10,000	
Onaping Levack Water	ONL- WD -23	Levack Drive / Copper Street Loop	New watermain to connecting existing watermains on Levack Drive and Copper Street. The watermain will loop through the future residential development.	N/A	N/A	N/A	150	150	PVC	Service New Proposed Residential Development	B	Development Funded	\$250,000	2041
Onaping Levack Water	ONL- WD -24	Gill Crescent Watermain	Upgrade existing watermain on Gill Crescent from Gill Avenue to the end of Gill Crescent.	64	50	Copper	84	200	PVC	Service New Proposed ICI Development	A+	Development Funded	\$150,000	2031
			Upgrade existing watermain on Gill Avenue from Gill Crescent to Campbell Street.	41	150	Asbestos Cement	47	200					\$80,000	
Onaping Levack Water	ONL- WC -25	Lining pipes Weckwas Street Loop	Lining pipes on Weckwas Street, extending south from the dead end at the north of the street.	162	150	Asbestos Cement	N/A	N/A	N/A	Improve System Security	A	City Funded	\$160,000	2031
				597	200								\$620,000	
Onaping Levack Water	ONL- WC -26	Pine Street and Fir Street lining	Lining watermains on Pine Street and Fir Street between Wickwas Street and Spruce Street, and along Spruce Street between Fir Street and Pine Street.	665	150	Asbestos Cement	N/A	N/A	N/A	Improve System Security	A	City Funded	\$650,000	2031
Onaping Levack Water	ONL- WC -27	Lining pipes Montain Ave and Valley Rd	Line pipes on Montain Ave from School St to Valley Rd and on Valley Rd.	210	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$200,000	2021



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Onaping Levack Water	ONL- WC -28	Onaping Fire PRV and Fraser Avenue Upgrades	300mm PRV in new chamber on HWY 8, near the pressure control building (whose smaller valves supply insufficient fire flow).	N/A	N/A	N/A	N/A	300	N/A	Improve fire flow available to Onaping (city side)	A+	City Funded	\$220,000	2021
			New PRV at Fraser Avenue and Hardy Heights	N/A	N/A	N/A	N/A	200	N/A				\$40,000	
			Upgrade existing watermains at the north and south ends of Fraser Avenue.	183	150	Asbestos Cement	183	200	PVC				\$220,000	
				163	200		163	300					\$250,000	
				356	150		356	300					\$540,000	
Valley Water	VAL- WC -29	Line Hanna Street Watermain	Line the existing watermains on Hanna Street, Beech Crescent, and Balsam Crescent	653	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$630,000	2026
				735	200		N/A						\$770,000	
				320	250		N/A						\$380,000	
Valley Water	VAL- WC -30	Line Young Street	Line the existing watermain on Young Street, Front Street, and Lakeshore Street	335	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$330,000	2031
				709	250		N/A						\$850,000	
Valley Water	VAL- WC -31	Line existing watermain on Hwy86 and Dennie Street	Line existing watermain along Dennie Street from Hanna Street tand Lincoln Crescent.	875	200	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$920,000	2021
Valley Water	VAL- WC -32	Vaughan Avenue Watermain	Upgrade existing watermain along Vaughan Avenue and Crescent Avenue from Shaw Street to Ferguson Avenue	610	150	CI	610	200	PVC	Improve Fire Flow Availability	A+	City Funded	\$1,610,000	2021
Valley Water	VAL- WD -33	St. Jean Street and St Alphonse Street Loops	Loop St. Jean Street to Junction Avenue and loop St Alphonse Street to Charlebois Street	N/A	N/A	N/A	225	200	PVC	Service Future Proposed Residential Development	A+	Development Funded	\$490,000	2021
Valley Water	VAL- WD -34	Notre Dame St E to Birch Street Loop	Loop the watermain from the east end of Notre Dame St E to Birch Street Stub.	N/A	N/A	N/A	266	200	PVC	Service Future Proposed Residential Development	A+	Development Funded	\$590,000	2021
Valley Water	VAL- WD -35	Hwy35/Paquette Street/Rose Street /Notre Dame Street West Loop	Loop the watermain on Hwy35, Paquette Street, Donat Street, Notre Dame Street W, and Rose Street	N/A	N/A	N/A	1068	200	PVC	Service New Proposed Residential & ICI Development	A+	Development Funded	\$1,930,000	2031
				124	150	PVC	124	200					\$220,000	



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Valley Water	VAL- WD -36	Shirley Street / Errington Ave / Leroux Street Loop	New watermain connecting existing watermains on Leroux Street, Laurette Street, Errington Avenue, and Shirley Street. The new watermain will create a loop south of Route 144	N/A	N/A	N/A	2,976	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$5,380,000	2021
Valley Water	VAL- WC -37	Hwy 35 Watermain	Upgrade existing watermain along Regional Road 35, extending east from Regional Road 15	38	150	Ductile Iron	38	300	PVC	Improve System Security	A+	City Funded	\$80,000	2021
				865		PVC	865	300					\$1,860,000	
Valley Water	VAL- WD -38	Montpellier Road Loop	New pipe on to loop Montpellier Road from Golf Course Rd south past McKenzie Road	N/A	N/A	N/A	281	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$650,000	2021
Valley Water	VAL- WC -39	Route 144 Upgrade	Upgrade existing watermain along Route 144, extending west from Omer Street	870	200	PVC	870	300	PVC	Improve System Security	A+	City Funded	\$2,050,000	2031
				255	150		255	300					\$730,000	
Valley Water	VAL- WC -40	Errington Avenue & Mona Avenue Lining and Looping	Line the watermains along Errington Avenue and Mona Avenue. New watermani along Mona Avenue between Vaillancourt Crescent and Morin Street to create a loop	1,318	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$1,280,000	2021
				N/A	N/A	N/A	63	200	PVC				\$210,000	
Valley Water	VAL- WD -41	Belisle Drive Loop	New watermain on Belisle Drive, extending north from Valleyview Road	N/A	N/A	N/A	246	300	PVC	Service Future Proposed ICI Development	A+	Development Funded	\$520,000	2021
Valley Water	VAL- WC -42	Bonin Street / Regional Road 18 / St. Laurent Street / Martin Road Loop	New watermain on Bonin Street, from Montee Rouleau to Regional Road 18; on Regional Road 18 from Bonin Street to St. Laurent Street; on St. Laurent Street, from Regional Road 18 to Martin Road; and on Martin Road from St. Laurent Street to the existing 200 mm on Martin Road.	N/A	N/A	N/A	8,746	400	PVC	Provide System Security	A+	City Funded	\$16,440,000	2031
Valley Water	VAL- WC -43	Yorkshire Dr loop	New watermain connecting Old Highway 69 to the existing watermain along Yorkshire Drive	N/A	N/A	N/A	249	200	PVC	Improve Fire Flow Availability	A+	City Funded	\$440,000	2021
Valley Water	VAL- WD -44	Heritage Drive Extension and Loop	New watermain connecting Old Highway 69 to the existing watermain at the south end of Saddle Creek Drive.	N/A	N/A	N/A	1,093	300	PVC	Service New Proposed Residential Development	A+	Development Funded	\$2,320,000	2021
Valley Water	VAL- WD -45	Suez Drive/Cote Boulevard Drive loop	New watermain to connect and loop existing watermains on Linden Drive/Suez Drive and Cote Boulevard	N/A	N/A	N/A	2,065	300	PVC	Service New Proposed ICI Development	A+	Development Funded	\$4,380,000	2031
Valley Water	VAL- WC -46	Notre Dame Avenue / Gravel Drive Loop, Gravel Drive and Coleen Avenue Upgrade	New watermains on Gravel Drive from existing watermain at Juliette Drive to Notre Dame Avenue and south on Notre Dame Avenue.	N/A	N/A	N/A	1,535	300	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$3,260,000	2026
			Upgrade existing watermain along Gravel Drive from Sanitary Landfill Road to Juliette Drive.	433	150	PVC	433	300					\$920,000	
			Upgrade existing watermain along Coleen Avenue from Gravel Drive to Proulx Court.	162	150		162	200					\$290,000	
Valley Water	VAL- WC -47	Deschene Dr / Gravel Drive Loop	New watermain along Gravel Drive from Sanitary Landfill Road to existing watermain on Deschene Road.	N/A	N/A	N/A	1,707	300	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$3,620,000	2026



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Valley Water	VAL- WD -48	Pilon Street Loop	New pipe to creat a loop from east end of Pilon St to River Road at Main Street	N/A	N/A	N/A	313	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$560,000	2021
Valley Water	VAL- WC -49	Lynn Street/Frappierd Road Loop	New watermain to create a loop between existing watermains on Lynn Street and Glendale Court.	N/A	N/A	N/A	713	200	PVC	Improve Fire Flow Availability and Improve System Security	B	City Funded	\$1,270,000	2021
Valley Water	VAL- WD -50	Chateau Crescent/Mederic Street/Wilfred Street Loop	New watermain to loop Chateau Crescent, Mederic Street, and Wilfred Street	N/A	N/A	N/A	247	200	PVC	Service New Proposed Residential & ICI Development	A+	Development Funded	\$540,000	2021
Valley Water	VAL- WD -51	Mederic Street and Wilfred Street Loop	New watermain to loop Mederic Street and Wilfred Street	N/A	N/A	N/A	454	200	PVC	Service New Proposed Residential Development	A+	Development Funded	\$810,000	2021
Valley Water	VAL- WC -52	Laval Street/St Therese Street Loop	New watermain to loop St. Therese Street with the existing watermain on Laval Street	N/A	N/A	N/A	105	200	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$190,000	2021
Valley Water	VAL- WC -53	Loop on Frappier Road to Main Street	New watermain from Main Street, extending north to connect to existing watermain on Frappier Road.	N/A	N/A	N/A	156	200	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$280,000	2021
		Loop on Helene St to Rebecca St	New watermain to create loop from existing watermains on Rebecca Street to Helene Street				351	200					\$630,000	
Valley Water	VAL- WC -54	Line Main Street Watermain	Line existing watermain on Main Street, extending east from Old Highway 69	43	200	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$40,000	2021
Valley Water	VAL- WC -55	Val East Mall Loop	New watermain to loop the existing watermain at Val East Mall	N/A	N/A	N/A	141	200	PVC	Improve Fire Flow Availability and Improve System Security	A+	City Funded	\$250,000	2021
Valley Water	VAL- WC -56	Line MacKenzie St & Helene St	Line existing watermains along McKenzie Street and Helene Street, and south along Leduc Avenue and parallel to Leo Avenue.	1269	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$1,230,000	2031
Valley Water	VAL- WD -57	Romeo Stree/Burnet Crescent loop	Upgrade existing watermain and implement new watermain to loop existing watermains along Romeo Street and Burnet Crescent	N/A	N/A	N/A	548	200	PVC	Improve Fire Flow Availability	A+	Development Funded	\$980,000	2021
				52	150	PVC	52	200	PVC				\$90,000	
Vermilion Water	VER- WC -58	Finland St and Collins Dr Lining	Line watermain along Finland Street from Orford Street to Cobalt Street. Reline pipe along Collins Drive from Balsam Street to Short Street.	479	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$470,000	2021
Vermilion Water	VER- WC -59	Creighton Rd to School St Reline Watermain Lining	Line watermain from Creighton Road to School Street connection line.	107	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$100,000	2021
Vermilion Water	VER- WC -60	Creighton Rd and Tennis Club Lane Updrade	Upgrade watermain from the existing 100mm to 200mm on Creighton Rd and Tennis Club Lane	40	100	CI	40	200	PVC	Improve Fire Flow Availability	B	City Funded	\$120,000	2021
			Line existing watermain on Creighton Rd	283	150		N/A	N/A	N/A		A		\$280,000	
Vermilion Water	VER- WC -61	Rink Street Watermain	Upgrade existing watermain from Rink Street to the Marconi Street and Diorite Street intersection.	51	150	CI	51	250	PVC	Improve Fire Flow Availability	A+	City Funded	\$80,000	2021
				259	150	CI	259	200	PVC				\$350,000	
			New check valve along Rink Street	N/A	N/A	N/A	N/A	200	N/A				\$20,000	
Vermilion Water	VER- WC -62	Diorite Street Lining	New segment of Coppercliff watermain with check valve.	N/A	N/A	N/A	21	300	PVC	Improve Fire Flow Availability	A	City Funded	\$40,000	2021
				N/A	N/A	N/A	N/A	300	N/A				\$40,000	
Vermilion Water	VER- WC -63	North Copper Cliff Watermain Lining-1	Upgrade existing portion of the nrth west coppercliff watermain near existing PRV.	227	150	CI	227	300	PVC	Improve Fire Flow Availability for the North Mine Bstr Zone	A	City Funded	\$700,000	2021
			Upgrade existing portion of the north east coppercliff watermain.	416	150	CI	416	200	PVC				\$940,000	
			PRV upgrade at north west portion of Coppercliff watermain	N/A	150	N/A	N/A	300	N/A				\$40,000	
			Lining of the north portion of Coppercliff watermain	135	200	CI	N/A	N/A	N/A				\$140,000	



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Vermilion Water	VER- WC -64	North Copper Cliff Watermain Lining-2	Lining of the north east portion of Coppercliff watermain	303	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability for the North Mine Bstr Zone	A	City Funded	\$290,000	2026
Vermilion Water	VER- WC -65	Main St (HWY 24) Twin Trunk	New watermain along Main Street from 2nd Avenue to Niemi Road.	N/A	N/A	N/A	670	300	PVC	Strengthen the Existing System to Increase System Reliability	A+	City Funded	\$1,550,000	2031
Vermilion Water	VER- WD -66	Lively West Loop	New watermain to connect existing watermains on Parkside Drive and 3rd Avenue in Lively.	N/A	N/A	N/A	681	300	PVC	Service Future Proposed Residential Development	A+	Development Funded	\$1,570,000	2021
Vermilion Water	VER- WC -67	Main Street Lining and Walden Public School Watermains	Line the watermain along Main Street, extending south from 9th Avenue and parallel to C Street, extending north from 6th Avenue.	171	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$170,000	2021
Vermilion Water	VER- WC -68	6th Avenue Loop	New watermain along 6th Avenue between Old Creighton Road and 10th Avenue. The watermain will loop the connections at 11th Avenue and 10th Avenue.	N/A	N/A	N/A	536	300	PVC	Improve Fire Flow Availability and Provide Additional Security to the Lively Network.	A+	City Funded	\$1,790,000	2031
Vermilion Water	VER- WD -69	Mumford Road/Fielding Road Loop	New watermains to extend south from Municipal Road 55. The new watermains will create a loop through the future ICI development area.	N/A	N/A	N/A	4,538	300	PVC	Service Future Proposed ICI Development	A+	Development Funded	\$10,480,000	2021
Vermilion Water	VER- WC -70	Line Mumford Rd	Line the existing watermain at the south end of Mumford Road.	159	200	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$170,000	2021
Vermilion Water	VER- WD -71	Hillcrest Drive and Dillon Trail Loop	New watermain from new easement at east end of Dillon Trail to North-East corner of Hillcrest Drive.	N/A	N/A	N/A	217	200	PVC	Improve Fire Flow Availability for future residential development	A+	Development Funded	\$420,000	2031
Vermilion Water	VER- WD -72	Thomas Avenue Loop	New watermain with check valve extending north from Thomas Avenue. The watermain will create a loop through the future Residential development area.	N/A	N/A	N/A	843	200	PVC	Service Future Proposed Residential Development	A+	Development Funded	\$1,620,000	2061
				N/A	N/A	N/A	N/A	200	N/A				\$20,000	
Vermilion Water	VER- WD -73	Jacob Street / Thomas Avenue Loop	New watermain to connect the south end of Jacob Street to Thomas Avenue. The watermain will connect zones "Old Soo PRV" and Mikkola.	N/A	N/A	N/A	511	200	PVC	Service Future Proposed Residential Development	A+	Development Funded	\$980,000	2041
Vermilion Water	VER- WC -74	Glen Ave / Walter Ave Loop	New watermain to connect the south ends of Glen Avenue and Walter Avenue.	N/A	N/A	N/A	106	200	PVC	Improve Fire Flow Availability	B	City Funded	\$200,000	2021
Vermilion Water	VER- WC -75	PRV Addition	A 300mm PRV to reduce pressure just north of 11th Avenue at 6th Avenue.	N/A	N/A	N/A	N/A	300	N/A	Improve Fire Flow Availability and Provide Additional Security to the Lively Network.	A	City Funded	\$40,000	2031
Vermilion Water	VER- WC -76	PRV and Check Valve Addition	A 300mm PRV and check valve in existing vault or building on the east side of Main St (RR24) north of 12th Avenue at Main Street.	N/A	N/A	N/A	N/A	300	N/A	Reduce pressure to the Lively Network without limiting fire flow	A	City Funded	\$40,000	2021
				N/A	N/A	N/A	N/A	300	N/A				\$40,000	



City of Sudbury Water and Wastewater Master Plan
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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Vermilion Water	VER- WC -77	PRV Addition	Reduce pressure for future industrial development in Walden Industrial Zone. The PRV will be located south of Municipal Road 55 at Noront Road.	N/A	N/A	N/A	N/A	200	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$40,000	2021
				N/A	N/A	N/A	N/A	300	N/A				\$40,000	
Vermilion Water	VER- WC -78	PRV Addition	Create a intermediate pressure zone to reduce pressure and further leakage. The PRVs will be located along Main Street at Niemi Road, along Old Soo Road west of Black Lake Road, and along Hillcrest Drive at Cuthbertson Drive.	N/A	N/A	N/A	N/A	300	N/A	Reduce pressure to Mikkola, Walden and Whitefish without limiting fire flow	A	City Funded	\$90,000	2021
				N/A	N/A	N/A	N/A	400	N/A				\$40,000	
Vermilion Water	VER- WC -79	PRV Upgrade	PRV should be investigated to confirm the existing diameter. If the existing PRV is less than 400 mm, an upgrade should be made	N/A	150	N/A	N/A	400	N/A		A	City Funded	\$40,000	2021
Sudbury Water	SUD- WC -80	PRV Addition	Reduce pressure in Coniston through a new watermain connection. The PRV will be located at Allan Street and Edward Avenue South.	N/A	N/A	N/A	N/A	300	N/A	Improve Fire Flow Availability and Improve System Security	A	City Funded	\$40,000	2021
Sudbury Water	SUD- WD -81	Penmen Avenue / Garson Coniston Road Loop	New watermain connecting existing watermains on Penman Avenue and Garson Coniston Road. The watermain will create a loop through the future residential development area.	N/A	N/A	N/A	1,348	300	PVC	Service New Proposed Residential Development	A+	Development Funded	\$3,930,000	2021
Sudbury Water	SUD- WC -82	Margaret Street South / O'Neil Drive East Watermain Upgrades	Upgrade existing watermains along Margaret Street South and O'Neil Drive East, extending south from Falconbridge Highway to Maplewood Crescent.	371	150	DI, CI	371	300	PVC	Improve Fire Flow Availability	A+	City Funded	\$1,080,000	2021
Sudbury Water	SUD- WD -83	Penman Avenue Watermain Upgrade	Upgrade existing watermain along Penman Avenue from O'Neil Drive East to south end of street.	884	150	DI	884	300	PVC	Service New Proposed Residential Development	A+	Development Funded	\$2,580,000	2031
				3	200	DI	3	300	PVC				\$10,000	
Sudbury Water	SUD- WD -84	Highway 86 Loop	New watermain along Highway 86 from Church Street to Spruce Street.	N/A	N/A	N/A	847	300	PVC	Service New Proposed ICI Development & Improve Fire Flow Availability	A+	Development Funded	\$2,470,000	2021
Sudbury Water	SUD- WC -85	Eva Street Watermain Lining	Line existing watermains on Eva Street and Rodney Street, extending south from O'Neil Drive West.	239	150	CI	N/A	N/A	N/A	Improve Fire Flow Availability	A	City Funded	\$230,000	2021
Sudbury Water	SUD- WD -86	Heino Road Watermain	New watermain on Heino Road, extending north from O'Neil Drive West.	N/A	N/A	N/A	875	300	PVC	Service New Proposed ICI Development	A+	Development Funded	\$2,550,000	2031
Sudbury Water	SUD- WD -87	O'Neil Drive West and National Street Loop	New watermain along National Street and along O'Neil Drive West from National Street to the exisiting 200 mm past Rodney Street.	226	150	CI	226	300	PVC	Service New Proposed ICI Development and Improve Fire Flow Availability	A+	Development Funded	\$660,000	2021
				N/A	N/A	N/A	3,317	300	PVC				\$9,790,000	
Sudbury Water	SUD- WC -88	Mary Court (Garson) Watermain Upgrade	Upgrade existing looped watermain along Mary Street.	211	100	CI	211	200	PVC	Improve the service to Sudbury	A+	City Funded	\$530,000	2021
Sudbury Water	SUD- WC -89	Concession Street Upgrade	New watermain along Concession Street, extending west from 2nd Avenue.	282	150	CI	282	300	PVC	Improve the service reliability to Wahnapiatae	A	City Funded	\$820,000	2021
Sudbury Water	SUD- WC -90	Terry Fox Sport Complex Loop (and check valve to Zone-9 Snowden)	New watermain with a check valve from the existing watermain in Terry Fox Sport Complex to Zone 9 Snowden (through park)	N/A	N/A	N/A	165	300	PVC	Improve Fie Flow Availability	A+	City Funded	\$480,000	2021
				N/A	N/A	N/A	N/A	300	N/A				\$40,000	
Sudbury Water	SUD- WD -91	Long Lake Road / Joseph Street Loop	New watermain to connect watermains on Long Lake Road and Joseph Street	N/A	N/A	N/A	1,185	300	PVC	Service Proposed Future ICI Development	A+	Development Funded	\$3,460,000	2031



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Sudbury Water	SUD- WC -92	Selkirk Street and Snowdon Ave Watermain Lining	Line existing watermain along Selkirk Street from Burton Avenue to Rio Road and along Snowdon Avenue from the Snowdon BPS to Burton Ave.	37	250	CI	N/A	N/A	N/A	Improve Fire Flow Availability.	A	City Funded	\$40,000	2021
				358	200	CI	N/A	N/A	N/A				\$370,000	
Sudbury Water	SUD- WC -93	Parker Szilva Memorial Path Watermain Upgrade	Upgrade existing watermain along Edward Avenue North, extending north from Allan Street and upgrade existing watermain passing through Coniston Centennial Park between 2nd Avenue and Edward Avenue North.	329	150	CI	329	300	PVC	Improve Fire Flow Availability	A+	City Funded	\$960,000	2021
Sudbury Water	SUD- WD -94	Caruso and John Street Loop	New watermain extending south from Elm Street to connect to the existing watermain along Caruso Street.	N/A	N/A	N/A	809	300	PVC	Service New Proposed Residential Development	A+	Development Funded	\$2,360,000	2031
				454	150	CI	454	300	PVC				\$1,320,000	
Sudbury Water	SUD- WC -95	Spruce Street & Cedar Street Upgrade	Upgrade existing watermains along Cedar Street and Spruce Street between 1st Avenue and 2nd Avenue	218	150	CI	218	200	PVC	Improve Fire Flow Availability	A+	City Funded	\$540,000	2021
Sudbury Water	SUD- WC -96	Rideau Ave Watermain Upgrade	Upgrade existing watermain along Horace Avenue between Caruso Street and Allan Street.	103	150	CI	103	300	PVC	Improve Fire Flow Availability	A+	City Funded	\$300,000	2021
Sudbury Water	SUD- WC -97	First Avenue (Coniston) Watermain	Upgrade existing watermain along First Avenue from north of Spruce Street, extending south to connect to the watermain crossing Coniston Centennial Park.	359	100	CI	359	200	PVC	Improve the service to Sudbury	A+	City Funded	\$890,000	2021
				145	100	CI	145	300					\$420,000	
Sudbury Water	SUD- WC -98	Second Avenue (Coniston) Watermain Upgrade	Upgrade existing watermain along Second Avenue from Hwy 17 to Balsam Street	251	150	CI	251	300	PVC	Improve the service to Sudbury	A+	City Funded	\$820,000	2021
				126	150	CI	126	200	PVC				\$310,000	
Sudbury Water	SUD- WC -99	Spruce Street Watermain Upgrade	Upgrade existing watermain along Spruce Street from Travers Street to Regent Street.	914	150	CI	914	300	PVC	Improve Fire Flow Availability	A+	City Funded	\$2,670,000	2021
				6	200	PVC	6	300	PVC				\$10,000	
				116	150	DI	116	300	PVC				\$270,000	
			Upgrade existing watermain along Barlow Street, extending south from Spruce Street.	64	150	CI	64	200	PVC				\$160,000	
			Upgrade existing watermain along Traverse Street, extending south from Spruce Street.	19	100	CI	19	150	PVC				\$40,000	
Sudbury Water	SUD- WD -100	Cambrian Heights Drive Watermain	Upgrade watermain on Cambrian Heights Drive from Notre Dame Avenue to the T section at 885 Cambrian Heights Drive.	558	250	DI	558	300	PVC	Service New Proposed Residential and ICI Development	A+	Development Funded	\$1,630,000	2021
Sudbury Water	SUD- WC -101	Upgrade Dell Street / Snowdon Avenue Watermain	Upgrade the existing watermain on Dell Street and Snowdon Avenue, from Notre Dame Avenue to the Snowdon BPS.	171	150	CI	171	300	PVC	Improve System Pressures & Fire Flow Availability	A+	City Funded	\$500,000	2021
				504	200	CI	504	300	PVC				\$1,470,000	
				344	250	CI	344	300	PVC				\$1,000,000	
Sudbury Water	SUD- WD -102	Rink Side Court / Greenvalley Drive Loop	New watermain to connect existing watermains on Rink Side Court and Greenvalley Drive. The watermain will create a loop through the future residential development area.	N/A	N/A	N/A	522	200	PVC	Service Proposed Future Residential Development	A+	Development Funded	\$1,300,000	2021
Sudbury Water	SUD- WD -103	Louisa Dr / Kaireen Street Loop	New watermain to loop Kaireen Street and Muriel Crescent.	N/A	N/A	N/A	641	200	PVC	Service Proposed Future Residential Development	B	Development Funded	\$1,600,000	2021



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Sudbury Water	SUD- WD -104	Bristol & Armstrong Street Loop	New watermain to loop Bristol & Armstrong Street	N/A	N/A	N/A	507	300	PVC	Service Proposed Future ICI and Residential Development	A+	Development Funded	\$1,480,000	2021
Sudbury Water	SUD- WD -105	Bristol/Radcliff Park Loop/Remington Rd Loop	New watermain to loop Bristol/Radcliff Park Loop/Remington Rd	N/A	N/A	N/A	814	300	PVC	Service Proposed Future ICI and Residential Development	A+	Development Funded	\$2,370,000	2021
Sudbury Water	SUD- WD -106	Long Lake Road Watermain	New watermain along Long Lake Road, extending south from Countryside Drive.	N/A	N/A	N/A	828	300	PVC	Service Proposed Future ICI Development	A+	Development Funded	\$2,420,000	2031
Sudbury Water	SUD- WD -107	Hunter Street/Virginia Street Loop	New watermain to loop existing watermains on Hunter Street and Virginia Street.	N/A	N/A	N/A	1,216	300	PVC	Service Proposed Future Residential Development	A+	Development Funded	\$3,630,000	2041
Sudbury Water	SUD- WD -108	Regent Street Loop	New watermain to connect watermains on Regent Street and the south end of Ida Street. The watermain will create a loop through the future ICI development area.	N/A	N/A	N/A	912	300	PVC	Service Proposed ICI Development	A+	Development Funded	\$2,730,000	2031
Sudbury Water	SUD- WD -109	Van Horne / Silverman & Morris Street / Somerset Street Loops	New watermain to connect the existing watermains along Morris Street and Somerset Street. New watermain along Howey Drive, extending east from Somerset Street.	N/A	N/A	N/A	565	300	PVC	Service Proposed Residential Development & Improve Fire Flow Availability.	A+	Development Funded	\$1,650,000	2021
				647	150	AC	647	300					\$1,890,000	
Sudbury Water	SUD- WC -110	Morris Street / Marshall Lane Loop	New watermain along Morris Street, extending west from Marshall Lane.	N/A	N/A	N/A	189	300	PVC	Service existing Residential & Improve Fire Flow Availability	A+	City Funded	\$550,000	2021
			New watermains along Marshall Lane and Van Horne Street, extending south from Morris Street.	N/A	N/A	N/A	180	200	PVC				\$450,000	
Sudbury Water	SUD- WC -111	Hebert Street Watermain Upgrade	Upgrade existing watermain on Hebert Street, from 2nd to 3rd Avenue.	454	150	CI	454	200	PVC	Improve the service to Sudbury	A+	City Funded	\$1,320,000	2021
Sudbury Water	SUD- WC -112	McNeill Blvd/Ethebert Street/Spruce Street Upgrade	Upgrade existing watermain along Ethelbert Street from Linden Street to Spruce Street.	441	150	CI	441	300	PVC	Improve the service to Sudbury	A+	City Funded	\$1,290,000	2021
				N/A	N/A	N/A	228	300					\$660,000	
			Lining the existing watermain under railway along Ethebert Street, extending south from Anderson Avenue.	88	150	DI	N/A	N/A	N/A				\$90,000	
Sudbury Water	SUD- WC -113	Lamothe Street - Barrydowne to Leon Watermain	New Watermain on Lamothe Street from Barrydowne Road to Leon Ave.	74	150	CI	74	200	PVC	Improve the service to Sudbury	A+	City Funded	\$180,000	2021
				20	200	PVC	20	200					\$50,000	
				N/A	N/A	N/A	419	200					\$1,040,000	
Sudbury Water	SUD- WC -114	Parkwood Street Waterman	New watermain to loop Parkwood Street and Poplar Street. The watermain will extend north from Maple Street along Parkwood Street and east along Poplar Street.	31	38	Copper	31	200	PVC	Improve the service to Sudbury	A+	City Funded	\$80,000	2021
				N/A	N/A	N/A	194	200					\$370,000	
Sudbury Water	SUD- WC -115	Margaret Street Watermain Upgrade	Upgrade existing watermain on Margret Street, extending east from 2nd Avenue N and loop Margret Street watermain to Garland Crescent	181	100	CI	181	200	PVC	Improve the service to Sudbury	A+	City Funded	\$450,000	2021
				N/A	N/A	N/A	63	200					\$120,000	
Sudbury Water	SUD- WC -116	Arvo Street Watermain Upgrade	Upgrade existing watermain along Arvo Avenue, extending north from Sparks Street.	396	100,150	CI	396	200	PVC	Improve the service to Sudbury	A+	City Funded	\$990,000	2021
Sudbury Water	SUD- WC -117	Rita Street Watermain Upgrade	Upgrade existing watermain along Rita Street, extending east from Wilfred Street.	115	100	CI	115	200	PVC	Improve the service to Sudbury	A+	City Funded	\$290,000	2021
Sudbury Water	SUD- WC -118	Avalon Road Watermain Upgrade	Upgrade existing watermain along Avalon Road, extending south from Bancroft Drive.	139	100	PVC, CI	139	200	PVC	Improve the service to Sudbury	A+	City Funded	\$350,000	2021



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Sudbury Water	SUD- WC -119	Dundas Street Watermain Upgrade	Upgrade existing watermain along Dundas Street between bancroft Drive and Hargreaves Avenue.	83	100,200	CI, PVC	83	200	PVC	Improve the service to Sudbury	A+	City Funded	\$210,000	2021
Sudbury Water	SUD- WC -120	Maley Drive Watermain Upgrade	Parallel existing watermain along Maley Drive from east end of Springdale Crescent to rail crossing. The watermain will create a connection from Springdale Cresent to Maley Drive.	855	250, 300	CI, DI, PVC, PE	855	600	PVC	Improve the service to Sudbury	A+	City Funded	\$3,740,000	2021
Sudbury Water	SUD- WC -121	Mont Adam Watermain Upgrade	Upgrade existing watermain on Mont Adam from Lloyd Street to Cochrane Street.	99	150	CI	99	300	PVC	Improve the service to Sudbury	A+	City Funded	\$290,000	2021
Sudbury Water	SUD- WC -122	St. Nicholas Watermain Upgrade	Upgrade existing watermain along St Nicholas Street from Edmund Street to Wembley Drive.	93	200	CI	258	300	PVC	Improve the service to Sudbury	A+	City Funded	\$750,000	2021
			Line existing watermain along St. Nicholas Street from Edinburgh Street to Edmund Street.	165	300	CI	N/A	N/A	N/A				\$230,000	
Sudbury Water	SUD- WC -123	Lorne Street Watermain	New watermain along Lorne Street from McLoad Road to Kelly Lake Road	2276	150, 200	CI, DI	2276	400	PVC	Improve the service to Sudbury	A+	City Funded	\$6,330,000	2021
Sudbury Water	SUD- WC -124	Maclachlan Street Watermain Upgrade	New watermain along Maclachlan Street, extending south from Spruce Street.	81	50	GI	81	200	PVC	Improve the service to Sudbury	A+	City Funded	\$200,000	2021
Sudbury Water	SUD- WC -125	Maple Street Watermain Upgrade (Reginald Street to Ethelbert Street)	Upgrade existing watermain on Maple Street Between Reginald Street & Ethelbert Street	149	150	CI	149	300	PVC	Improve the service to Sudbury	A+	City Funded	\$430,000	2021
		Maple Street Watermain Upgrade (Ethelbert Street to East End)	New watermain on Maple Street from Ethelbert Street to east end	53	50	Copper	53	300	PVC				\$150,000	2021
Sudbury Water	SUD- WC -126	Maple Street Watermain Update (Parkwood Street to West End)	New watermain on Maple Street from Parkwood Street to West End	70	50	Copper	70	300	PVC	Improve the service to Sudbury	A+	City Funded	\$200,000	2021
Sudbury Water	SUD- WC -127	Morin Avenue Watermain Upgrade	Upgrade existing watermain on Morin Avenue from Mable Avenue to the South End	95	50	GI	95	200	PVC	Improve the service to Sudbury	A+	City Funded	\$240,000	2021
Sudbury Water	SUD- WC -128	Barbara Street Watermain Upgrade	Upgrade existing watermain on Barbara Street from Yale Street to Arnold Street	523	150	CI	248	300	PVC	Improve the service to Sudbury	A+	City Funded	\$720,000	2021
							275	200	PVC				\$530,000	
Sudbury Water	SUD- WC -129	Elm Street Watermain Replacement	New watermain on Elm Street between Frood Road and Elgin Street	82	300	CI	82	300	PVC	Improve the service to Sudbury	A+	City Funded	\$240,000	2021
Sudbury Water	SUD- WC -130	Gutcher Avenue Watermain Upgrade	New watermain on Gutcher Avenue from Mary Street to Lorne Street	387	150, 250	CI, PVC	387	300	PVC	Improve the service to Sudbury	A+	City Funded	\$1,130,000	2021
Sudbury Water	SUD- WC -131	St. Jerome Easement Watermain Upgrade	Upgrade existing watermain on St. Jerome Easement east of Notre Dame Avenue	355	100	CI	355	200	PVC	Improve the service to Sudbury	A+	City Funded	\$880,000	2021
Sudbury Water	SUD- WC -132	Kelly Lake Road Watermain Upgrade	Upgrade existing watermain along Kelly Lake Road from just north of Copper Street to railroad just south of Lorne Street	956	200, 250	CI, DI, PVC	956	300	PVC	Improve the service to Sudbury	A+	City Funded	\$2,890,000	2021
Sudbury Water	SUD- WC -133	Lorne Street Easement Watermain Upgrade	Upgrade existing watermain between Sutherland Avenue and Dean Avenue, and north on Dean Avenue.	227	150	CI	227	200	PVC	Improve the service to Sudbury	A+	City Funded	\$570,000	2021
Sudbury Water	SUD- WC -134	Marcel Street Loop	Upgrade existing watermain and implement a new watermain on Marcel Street from Yale Street to Bouchard Street	167	150	CI	167	200	PVC	Improve the service to Sudbury	A+	City Funded	\$420,000	2021
				N/A	N/A	N/A	69	200	PVC				\$170,000	



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				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Sudbury Water	SUD- WC -135	Laberge Lane Watermain Upgrade	Upgrade existing watermain on Laberge Lane from 23 m north of Bancroft Drive to the North End of the Street	190	150	CI	190	200	PVC	Improve the service to Sudbury	A+	City Funded	\$470,000	2021
Sudbury Water	SUD- WC -136	Fairburn Street Watermain Upgrade	New watermain on Fairburn Street from Barrydowne Road to East End	314	200, 300	CI	314	300	PVC	Improve the service to Sudbury	A+	City Funded	\$920,000	2021
Sudbury Water	SUD- WC -137	Barry Downe Road Watermain Upgrade	Upgrade and replace existing watermain on Barry Downe Road from Westmount Avenue to Kingsway	5	250	DI	5	500	PVC	Improve the service to Sudbury	A+	City Funded	\$20,000	2021
				734	500	DI	734	500	PVC				\$2,590,000	
Sudbury Water	SUD- WC -138	Northway Watermain Upgrade	Upgrade to existing watermain on Northway from Lasalle Boulevard to Palisade Place	181	150	CI	181	200	PVC	Improve the service to Sudbury	A+	City Funded	\$450,000	2021
Sudbury Water	SUD- WC -139	Maureen Crescent Watermain Upgrade	Upgrade to existing watermain on Maureen Crescent from Downland Avenue to Gemmel Street	216	150	CI	216	200	PVC	Improve the service to Sudbury	A+	City Funded	\$540,000	2021
Sudbury Water	SUD- WC -140	Patrick Avenue Watermain Upgrade	Upgrade existing watermain on Patrick Avenue from Hawthorne Drive to Canterbury Street	250	150	CI	250	200	PVC	Improve the service to Sudbury	A+	City Funded	\$620,000	2021
Sudbury Water	SUD- WC -141	Barrington Street Watermain Upgrade	Upgrade the existing watermain on Barrington Street from Falconbridge Road to west the end	194	150	CI	194	200	PVC	Improve the service to Sudbury	A+	City Funded	\$480,000	2021
Sudbury Water	SUD- WC -142	Noble Street Watermain Upgrade	Upgrade to existing watermain on Noble Street from Huron Street to Granite Street	89	150	CI	89	200	PVC	Improve the service to Sudbury	A+	City Funded	\$220,000	2021
Sudbury Water	SUD- WC -143	Hope Street Watermain Upgrade	Upgrade existing watermain on Hope Street from Huron Street to Granite Street	89	150	CI	89	200	PVC	Improve the service to Sudbury	A+	City Funded	\$220,000	2021
Sudbury Water	SUD- WC -144	Yale Street Watermain Upgrade	Upgrade existing watermain on Yale Street from Marcel Street to Regent Street	254	150	CI	254	200	PVC	Improve the service to Sudbury	A+	City Funded	\$630,000	2021
Sudbury Water	SUD- WC -145	Leslie Street Watermain Upgrade	Upgrade existing watermain on Leslie Street from Myles Street to Mont Adam Street	418	200	CI	418	200	PVC	Improve the service to Sudbury	A+	City Funded	\$1,040,000	2021
Sudbury Water	SUD- WC -146	Minto Street Watermain Upgrade	Upgrade existing watermain on Minto Street from Larch to Elgin	371	250	CI	371	300	PVC	Improve the service to Sudbury	A+	City Funded	\$1,080,000	2021
Sudbury Water	SUD- WC -147	David Street WTP yard piping upgrade	New 600 mm yard piping & future Zone 1R suction for David St PS	N/A	N/A	N/A	390	600	Concrete	Improve reliability and enable future use for booster	A	City Funded	\$1,660,000	2031
Sudbury Water	SUD- WC -148	David Street WTP PRV	David St. WTP common discharge header inspection and two new 300mm PRV for future Zone 1RED (reduced).	N/A	N/A	N/A	N/A	300	N/A	Reduce leakage and pipe breaks due to excessive pressures caused by large elevation range	A	City Funded	\$90,000	2021
Sudbury Water	SUD- WC -149	Sudbury Pressure Control	PRV(2) pairs in chamber to control both daily and fire flow upon completion of Sudbury Pressure Control Study	N/A	N/A	N/A	N/A	400	N/A	Allow existing Ellis storage to be top-filled without over-pressurising distribution in south-west Sudbury	A	City Funded	\$40,000	2021
				N/A	N/A	N/A	N/A	200	N/A				\$220,000	
				N/A	N/A	N/A	N/A	300	N/A				\$40,000	
				N/A	N/A	N/A	N/A	150	N/A				\$220,000	
Sudbury Water	SUD- WC -150	Sudbury Pressure Control	New check valves upon completion of Sudbury Pressure Control Study	N/A	N/A	N/A	N/A	300	N/A	Reduce break frequency and leakage	A	City Funded	\$110,000	2021
				N/A	N/A	N/A	N/A	200	N/A				\$20,000	
				N/A	N/A	N/A	N/A	250	N/A				\$20,000	
				N/A	N/A	N/A	N/A	400	N/A				\$60,000	



System	Project ID	Project Name	Project Extents/Description	Existing Watermains			Required Watermains			Trigger for the New Infrastructure	Class EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing (Project end date)
				Length (m)	Diameter (mm)	Pipe Material	Length (m)	Diameter (mm)	Pipe Material					
Sudbury Water	SUD- WC -151	Wanapitei Paralell Trunk	New watermain extending from Wanapieie WTP west through Coniston to Sudbury. A PRV can be implemented at the south end of the 300 mm Coniston watermain for redundancy	N/A	N/A	N/A	190	400	Concrete	Improve the service to Sudbury	A+	City Funded	\$440,000	2031
				N/A	N/A	N/A	7,426	750					\$33,160,000	
												TOTAL	\$238,880,000	



City of Sudbury Water and Wastewater Master Plan
Recommended Water Infrastructure
Vertical Water Projects

System	Project ID	Project Name	Project Extents/Description	Trigger for the New Infrastructure	Class EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing (Project end date)
Falconbridge Water	FAL- WC -152	Falconbridge Storage	New water storage facility to be implemented on the site of the existing elevated tank	Improve servicing to Falconbridge	B	City Funded	\$2,392,000	2021
Falconbridge Water	FAL- WC -153	Falconbridge fire flow booster pumps	Two new fire booster pumps and associated piping and controls. Each pump 32kW (45HP) to deliver 95L/s at 26m TDH	Improve fire flow available to Falconbridge including Mott Booster zone	B	City Funded	\$3,738,000	2021
Falconbridge Water	FAL- WC -154	Falconbridge Fluoridation Facility	Falconbridge fluoridation facility upgrade	Optimize operation of Valley system	A	City Funded	\$748,000	2021
Valley Water	VAL- WC -155	Valley wells rehabilitation study and rehabilitation	Well Study and future rehabilitation of Valley wells	Required to reach rated capacity	A	City Funded	\$23,322,000	2031
Valley Water	VAL- WC -156	Valley wells upgrade	Valley Well UV system replacement	Optimize operation of Valley system	A	City Funded	\$1,794,000	2031
Valley Water	VAL- WC -157	Valley wells treatment	Additional treatment of Valley Wells where required	Optimize operation of Valley system	B	City Funded	\$4,485,000	2031
Valley Water	VAL- WC -158	Valley wells standby power	Additional standby power where required	Optimize operation of Valley system	A	City Funded	\$1,346,000	2021
Valley Water	VAL- WC -159	Valley pressure control	Booster pumps and SCADA instalation at Azilda Standpipe site to drain tank down against system HGL.	Make full use of existing storage, delaying or eliminating new storage and the need for a pressure reduction station (on the 600mm between Valley East and Chelmsford/Azilda). Improves water quality and reduces pressure and leakage throughout valley.	B	City Funded	\$6,728,000	2021
			Install SCADA and electric actuator to existing isolation valves. Enable daily lock-out of Chelmsford and Val Caron tanks		A	City Funded	\$179,000	2021
Sudbury Water	SUD- WC -160	Garson wells standby power	Additional standby power where required	Optimize operation of Sudbury system	A	City Funded	\$449,000	2021
Sudbury Water	SUD- WC -161	David Street WTP upgrade	David St. WTP upgrades due to source water deterioration	Optimize operation of Sudbury system	B	City Funded	\$2,990,000	2021

System	Project ID	Project Name	Project Extents/Description	Trigger for the New Infrastructure	Class EA Schedule	Funding Source	Rounded Project Cost (\$)	Implementation Timing (Project end date)
City of Greater Sudbury	CGS- WC -162a	Wanapitei Lake Water Treatment Plant	1,200 hp raw water pumping station	Provide supply to the existing Sudbury, Falconbridge, and Valley Drinking Water systems. Allow for the decomisssoning of Valley wells.	C	City Funded	\$21,528,000	2031
	CGS- WC -162b		Raw watermain to stretch for 7.5 km with a diameter of 750 mm from Wanapitei Lake to the prposed Water Treatment Plant			City Funded	\$39,244,000	2031
	CGS- WC -162c		60 MLD Water Treatment Plant to be located near the aiport, with intake from Wanapitei Lake			City Funded	\$134,550,000	2031
	CGS- WC -162d		15 ML storage facility to be implemented with the Water Treatment Plant			City Funded	\$26,910,000	2031
	CGS- WC -162e		Decomissioning of Valley Wells			City Funded	\$748,000	2031
	CGS- WC -162f		750 mm watermain to extend 20.5 km to connect the proposed Water Treatment Plant to Sudbury via Maley Drive	Interconnect Sudbury with the Valley and Falconbridge systems		City Funded	\$113,396,000	2031
	CGS- WC -162g		600 mm watermain to extend 13 km to connect the proposed Water Treatment Plant to the Valley system via Notre Dame Avenue			City Funded	\$56,362,000	2031
	CGS- WC -162h		300 mm watermain to extend 0.5 km to connect the proposed Water Treatment Plant to the Falconbridge system			City Funded	\$1,121,000	2031
TOTAL							\$442,030,000	