

APPENDIX 2

Master Plan Consultation

Part 1

Appendices 2.1 to 2.4



APPENDIX 2.1
Stakeholder Directory



STAKEHOLDER REGISTER												
PROJECT NAME	STAKEHOLDER	CONTACT NAME	ADDRESS	PHONE	EMAIL	NOTES	NOTICE OF STUDY (date sent)	NOTICE OF PCC	NOTICE OF PCC 2	FOLLOW-UP	COMMENTS RECEIVED	RESPONSE FROM RVA
CLIENT	POINT OF CONTACT											
PROJECT DESCRIPTION												
STAKEHOLDER	TITLE/ROLE	Contact Name	Address	Phone	Email	Notes	Notice of Study (date sent)	Notice of PCC	Notice of PCC 2	Follow-up	Comments Received	Response from County/RVA
Middlesex County	County Clerk	Mari Ivancic	399 Ridout Street North London, Ontario N6A 2P1	519-434-7321 x2250	mivancic@middlesex.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Perth County	Chief Administrative Officer	Lois Wolfe	1 Huron Street, Stratford, ON N5A 2S4	519-271-0931 x 120	lwolfe@perth.ca		15-Mar-22	13-Sep-22	08-Jun-23			
Perth County	Director of Communications and Public Relations	Melissa Connor	31 Mechanics St., Suite 207, Paris, Ontario N0L 1K1	519-442-6324 x 2208	mconnor@perth.ca		14-Mar-22	13-Sep-22	08-Jun-23			
North York County	Executive	Jim Binney	County Administration Building, 60 Colborne St., Stratford, ON N5A 2S4	519-426-5870 ext 1236	jbinney@perth.ca	NGS#1 Undeliverable	14-Mar-22	13-Sep-22	08-Jun-23			
Norfolk County	Chief Administrative Officer	Al Menses	County Administration Building, 60 Colborne St., S., Stratford, ON N5A 2S4	519-426-5870 x 1225	amenses@perth.ca	Replacing Jill above	14-Mar-22	13-Sep-22	08-Jun-23			
Elgin County	Chief Administrative Officer	Julie Goryou	450 Sunset Drive St. Thomas, Ontario N5R 5V1		jgoryou@elgin.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Bayham	Deputy Clerk/Planning Coordinator	Margaret Underhill	56169 Heritage Line, PO Box 160 Stratford, ON N5L 1Y0		munderhill@bayham.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Thames Centre	Chief Administrative Officer	Stewart Findlay	4300 Henslow Rd Northampton, ON, Canada N0L 1G3	519-269-7334 ext. 228	stewart.findlay@thamescentre.ca	PPCF#1 Undeliverable	14-Mar-22	13-Sep-22	08-Jun-23			
Perth East	Executive Assistant to CAO	Kayla Johnson	Township of Perth East 25 Mill Street East Munton, Ontario N0K 1M0	519-555-2800 x236	kjohnson@perth.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Winnet	Communications Specialist	Katy Baird	60 Snyder's Road West Bucks, Ontario N0A 1A1		kabaird@winnet.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Perth South	CAO Treasurer Deputy Clerk	Rebecca Cloutier	Township of Perth South 3191 Rd 122 St. Pauls ON N0S 1P0	519-271-0519 Ext 227	rcoutier@perth.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Electoral Officials	MP - Ontario	Ernie Hardeman	12 Perry St Woodstock, ON N4S 3C2	519-537-6222	erhardeman@parliament.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Federal Government	MP - Ontario	Lave Mackenzie	208 Huron Street Suite 4 Woodstock, Ontario	519-421-7214	lave.mackenzie@parliament.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Township of Norwich (& Oxford County)	Mayor (Wardens)	Larry Martin	42226 Substation Road Burgessville, ON N0T 1C0	519) 424-2188	larry@norwich.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Township of Norwich	Ward 3 Councillor	Jim Palmer	R.R. #3 Norwich, ON N0L 1P0	519) 469-6215	jp@norwich.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Township of Norwich	Ward 2 Councillor	Lynne DePierick	85 River Oaks Drive Denville, ON N0L 1M0	506) 321-5576	ld@norwich.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Local Agencies	Southwestern Public Health Unit	Program Manager, Environmental Health	1230 Talbot Street, St. Thomas, ON N5P 1G8		amy.fawcett@shsu.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Indigenous Groups	Amnijiwaaing First Nation	Chief	Chris Plan	879 Testmoor Avenue Sarnia, ON N7T 7H5	chris@amnjiiwaaing.ca	519-338-8410	14-March-22 - Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Amnijiwaaing First Nation	Environment Coordinator	Sharilyn Johnson	879 Testmoor Avenue Sarnia, ON N7T 7H5		sharilyn@amnjiiwaaing.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Bejwaning Territory (Walpole Island)	Chief	Chief Charles Sampson	R.R. #3 117 Tanagering Road Walpole Island, ON N0L 1G0		charles.sampson@bejwaning.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Bejwaning Territory (Walpole Island)	Project Review Coordinator	Jarret Macbeth	R.R. #3 117 Tanagering Road Walpole Island, ON N0L 1G0		jarret@bejwaning.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Bejwaning Territory (Walpole Island)	Consultation Manager	Dean Jacobs	R.R. #3 117 Tanagering Road Walpole Island, ON N0L 1G0		dean@bejwaning.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Catlaet First Nation	Acting Chief	Acting Chief Robin Perkins	14 Orange Street Leamington, ON N8H 1P5		robin@catlaet.ca		NGS #1 Undeliverable to with Nikki NOC	14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23	
Catlaet First Nation	Director of Operations	Nikki van Orschoot	14 Orange Street Leamington, ON N8H 1P5		nikki@catlaet.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Catlaet First Nation	Consultation Coordinator	Brianne Sands	14 Orange Street Leamington, ON N8H 1P5		brianne@catlaet.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Kettle and Stony Point First Nation	Chief	Chief Jason Henry	2247 Indian Lane Kettle and Stony Point FN, ON N0N 1J1		jason@kettleandstone.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Kettle and Stony Point First Nation	Consultation officer	Valerie George	2247 Indian Lane Kettle and Stony Point FN, ON N0N 1J1		valerie@kettleandstone.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Chippewas of the Thames First Nation	Chief	Chief Jacqueline French	R.R. #1 289 Jubilee Road Muncey, ON N0L 1Y0		jacqueline@chippewas.ca		NGS#1 all through NationsConnect; submitted through Nations Connect 14-March-22: Letter sent re: NOC	15-Mar-22	13-Sep-22	08-Jun-23		
Chippewas of the Thames First Nation	Consultation Coordinator - Lands & Environment	Fallon Buron	300 Chippewa Road, Muncey, ON N0L 1Y0	519-289-5565 ext-224	fallon@chippewas.ca		NGS#1 all through NationsConnect; submitted through Nations Connect	15-Mar-22	13-Sep-22	08-Jun-23		
Chippewas of the Thames First Nation			300 Chippewa Road, Muncey, ON N0L 1Y0		fallon@chippewas.ca		NGS#1 all through NationsConnect; submitted through Nations Connect	15-Mar-22	13-Sep-22	08-Jun-23		
Munsee-Ojibwa Nation	Chief	Chief Roger Thomas	R.R. #1 289 Jubilee Road Muncey, ON N0L 1Y0	519-289-5396	roger@munsee.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Munsee-Ojibwa Nation	Executive Assistant	Carol Antoine	R.R. #1 289 Jubilee Road Muncey, ON N0L 1Y0		carol@munsee.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Munsee-Ojibwa Nation	Consultation Coordinator	Stacey Phillips	R.R. #1 289 Jubilee Road Muncey, ON N0L 1Y0		stacey@munsee.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Delaware Nation at Moraviantown	Chief	Chief Denise Steneff	14760 School House Line RR3 Thameville ON N0P 2P0	519-692-3936	denise@delawarenation.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Ojibwa of the Thames First Nation	Chief	Chief Adrian Christoph	2212 Elm Avenue Southwell, ON N0L 2D0	519-652-6922	adrian@ojibwa.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Ojibwa of the Thames First Nation	Environment and Consultation Coordinator	Brandon Doolster	2212 Elm Avenue Southwell, ON N0L 2D0	519-652-6922	brandon@ojibwa.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Mississaugas of the New Credit First Nation	Consultation Manager	Mark LaForme	Mississaugas of the New Credit First Nation 2789 Mississauga Road R.R. #5 Hagerson, Ontario N0L 1H0	855)788-1133	Mark.LaForme@missis.ca Mark.LaForme@missis.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Mississaugas of the New Credit First Nation	Department of Consultation & Accommodation	Fawn Saut			fawn@missis.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Mississaugas of the New Credit First Nation	Archaeological Operations Supervisor Department of Consultation and Accommodation (DOCA)	Megan DeVries	4065 Highway 6 North, Hagersville, ON N0A 1H0	P 905-769-4260 M 288-527-2763	Megan.DeVries@missis.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Six Nations of the Grand River	Lands & Resource Director	Lorray Bombarry	Six Nations of the Grand River Consultation and Accommodations Team 2488 Chesham Rd. P.O. Box 5000 Orwellton, ON N0A 1M0		lorray@sixnations.ca		Relationship Building Meeting - June 2, 2022	14-Mar-22	13-Sep-22	08-Jun-23		
Six Nations of the Grand River	Land Use Office, Lands and Research	Rubben Vanstone	Six Nations of the Grand River Consultation and Accommodations Team 2488 Chesham Rd. P.O. Box 5000 Orwellton, ON N0A 1M0		rubben@sixnations.ca		Relationship Building Meeting - June 2, 2022	14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23	
Six Nations of the Grand River	Archaeology Coordinator	Tanya HB-Mourbour	Six Nations of the Grand River Consultation and Accommodations Team 2488 Chesham Rd. P.O. Box 5000 Orwellton, ON N0A 1M0		tanya@sixnations.ca		Relationship Building Meeting - June 2, 2022	14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23	
Hexdunsmuir Confederacy Chiefs Council			Hexdunsmuir Development Institute 16 Sunrise Court - Suite 600 P.O. Box 714 Orwellton, Ontario N0A 1M0	519-443-4222	hexdunsmuir.ca		14-March-22: Letter sent re: NOC	14-Mar-22	13-Sep-22	08-Jun-23		
Utilities	ET Fiber Services Inc.	Gregory Tobias	8020 Chesham Road Mississauga, ON L4W 0B6	905-614-6820	gregory.tobias@etfiber.ca		13-Sep-22	13-Sep-22	08-Jun-23			
Hydro One Networks	Secondary Land Use	General Email	465 Bay Street, North Tower, 15th Floor Toronto, ON	416-345-5866	secondarylanduse@hydroone.ca		13-Mar-22	13-Sep-22	08-Jun-23			
Hagers Municipal Operations Centre	Hagers Municipal Operations Centre	Marking Requests	1140 ON PAV. HWY 255 Hagersville, Ontario N0L 1G5		markingrequests@hagers.ca		14-Mar-22	13-Sep-22	08-Jun-23			
Enterprise Gas Distribution Incorporated	Advisor, Construction Project Manager	Rob Elliot	500 Consumers Road North York, Ontario Canada M2J 1P9		rob.elliott@enterprise.ca		14-Mar-22	13-Sep-22	08-Jun-23			
EXCELINK TELECOM	Operations Supervisor	Jeff Soeteman	1127 Ridgeway Rd P.O. Box 93 Woodstock, ON N4V 1E3	519-456-1094	jeff.soeteman@excelink.com		15-Mar-22	13-Sep-22	08-Jun-23			
TransCanada Pipelines Inc.	Project & Planning Coordinator	Dorlene Gaulty	801 Hurley Road, Belfry ON L7E 5A7	705-737-0863 x01	dorlene@transcanada.com		15-Mar-22	13-Sep-22	08-Jun-23			
Erth Power	Director of Engineering & Operations	Josh Smith	143 Bell Street, PO Box 157, Ingersoll, ON N0C 3K5	519-485-1620 ext. 228	josh.smith@erthpower.com		14-Mar-22	13-Sep-22	08-Jun-23			
Erth Thames Hydro	Director of Regulatory, Finance & Customer Relations	Urag Patti	P.O. Box 157 143 Bell Street Ingersoll, Ontario N0C 3K5	519) 485-1820	urag@erthpower.com		15-Mar-22	13-Sep-22	08-Jun-23			
Tilbury Hydro	General Manager	Ian McKenzie	Tilbury Customer Service Centre 10 Lager Ave Tilbury ON N4G 1A5	519-688-3009 ext. 4800	ian@tilbury.ca		15-Mar-22	13-Sep-22	08-Jun-23			
RELEVANT INTEREST GROUP/OTHER	Proton & Co	Proton & Co			protonandco.com		14-Mar-22	13-Sep-22	08-Jun-23			
Resident							13-Sep-22	13-Sep-22	08-Jun-23			
Resident							13-Sep-22	13-Sep-22	08-Jun-23			
Resident							13-Sep-22	13-Sep-22	08-Jun-23			

STAKEHOLDER REGISTER												
PROJECT NAME STAKEHOLDER	Client/Owner TITLE/ROLE	Contact Name	Address	23-FC-12 Email	PHONE NUMBER Phone	Notes	Notice of Study (date sent)	Notice of PCC	Notice of PCC 2	Follow-up	Comments Received	Response from RVA
CLIENT POINT OF CONTACT	Oxford County Don Ford	dford@oxfordcounty.ca										25-Sep-23 S.Chanis / T. Doucette
PROJECT DESCRIPTION	Water and Wastewater Master Plan servicing strategies to meet growth projections for the next 20 years. Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure and complete all necessary public consultation.											
STAKEHOLDER	TITLE/ROLE	Contact Name	Address	Email	Phone	Notes	Notice of Study (date sent)	Notice of PCC	Notice of PCC 2	Follow-up	Comments Received	Response from County/RVA
MTE Consultants				info@mticonsultants.com				13-Sep-22	08-Jun-23			
MTE Consultants				deane@mticonsultants.com				13-Sep-22	08-Jun-23			
SCS Consulting Group Ltd.		Phil Sheridan		psheridan@scsconsulting.com				13-Sep-22	08-Jun-23			
G. Douglas Vaile Limited		Bridon Darbyson		bridon@vaile.ca				13-Sep-22	08-Jun-23			
Realtor	Re/Max Realty Services Inc.	Lally Thapar		lally@realtor.com	647-949-4545			13-Sep-22	08-Jun-23			
Associate Vice President Broker	D. W. Gould Realty Advisors Inc. Brokerage	Ery Lopez Morales		erly@dwg.ca	905-826-2000			13-Sep-22	08-Jun-23			
Environmental Planner	AECOM	Paul Adams		paul.adams@aecom.com				13-Sep-22	08-Jun-23			
Project Engineer	AECOM	Jeffrey Kello		jeffrey.kello@aecom.com				13-Sep-22	08-Jun-23			
Senior Environmental Planner	AECOM	Kurt Gagnier		kurt.gagnier@aecom.com				13-Sep-22	08-Jun-23			
Planner	GSP Group	Arvinia Siering		arvinia@gspplan.com	226-243-7298			13-Sep-22	08-Jun-23			
Senior Associate	Waterbody	Dan Ferguson		dferguson@waterbody.com	919-486-1932			13-Sep-22	08-Jun-23			
Project Manager	CJDL Consulting Engineers	Andrew and Deb Givney		andrew@cjdl.com				13-Sep-22	08-Jun-23		(6-Sep-23) Received email per information in Appendix 2.7	
Project Manager	CJDL Consulting Engineers	Alexander Mathew		alexander@cjdl.com				13-Sep-22	08-Jun-23			
	Brews	Shawn Lewis		shawn.lewis@brews.com					08-Jun-23			
	Yocde			yocde@yocde.com					08-Jun-23			
	WSP	Marisa Williams		marisa.williams@wsp.com					08-Jun-23			
	GSP Group	Brandon Flewelling		brandon@gspplan.ca					08-Jun-23			
Engineering Services	Cyrl J. Demeyere Ltd.	Cameron Cluett		ccuett@cyrl.com					08-Jun-23			
Resident				residents@oxford.ca					08-Jun-23			
Manager, Engineering	Sidon Properties Limited	Justin Diore		justin@sidon.com	919-852-8466				08-Jun-23			
Real Estate Agent	Ontariowide Real Estate Brokerage	Alex Semacrak		alex@ontariowide.com	919-781-0200				08-Jun-23			
Real Estate Analyst	Wayfore Homes (Performance Communities Inc.)	David Looch		david.looch@wayfore.com	919-471-1466				08-Jun-23		June 26, 2023 - Emailed Mackenzie and asked to be added to Mailing List	
PCC 2 Attendee											Phone calls on June 12 and June 21, 2023	June 12, 2023 Phone Call with John Tymel at about 1 PM. I had reviewed the 2023 PCC1 presentation and was interested in the water servicing for [redacted] has some property that he would like to develop into a residential subdivision. He said that he had a meeting scheduled with County Planning later this week. I answered some general questions on water supply, treatment, and storage but I did state that PCC 2 is expected in the next month and at that point there would be information on the water supply in Township. I do say that approval for development would be something provided by planning and not something necessarily tied up with the water/wastewater master plan. June 29, 2023 Phone Call with John Tymel I received a voicemail message on June 28, 2023 from regarding PCC 2.
PCC 2 Attendee												
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PCC 2 Attendee												
PCC 2 Attendee												
Resident	Land Owner	Dave Piggot				Phone call 13-Jun-23						13-JUN-23 Resident had some property that he would like to develop into a residential subdivision in Bright. RVA answered some general questions on water supply, treatment, and storage but did state that PCC 2 is expected in the next month and at that point there would be information on the water supply in Bright as well as Bradford Westdoon Township. Resident name left in email as resident is named in Top of Bradford-Blenheim August 2, 2023 meeting. Subdivision 2 as above in Appendix 2.7
Resident from Tilsonburg	Property Owner					Email June 25, 2023						25-JUN-23 Resident concerned over price for water in Tilsonburg as well as questions on use for grass watering during the summer. Referred to PCC2 for additional details.

APPENDIX 2

Consultation Summary
Part 2



APPENDIX 2.2
Public Notices



APPENDIX 2.2.1
Commencement Notice



Notice of Study Commencement

Oxford County Water and Wastewater Master Plan

Oxford County has initiated the development of a Water and Wastewater Master Plan (W/WW MP) to provide the County with strategic long-term water and wastewater servicing strategies to support existing servicing needs and accommodate further projected population and employment growth to the year 2046.

What is the Water and Wastewater Master Plan?

The W/WW MP is a long-term strategic planning document that lays out the County's vision and goals for its water and wastewater systems to 2046. The W/WW MP will:

- Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046;
- Develop water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County's Official Plan and strategic initiatives;
- Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure;
- Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability.

R.V. Anderson Associates Limited has been retained by Oxford County to complete the W/WW MP.

The W/WW MP is being conducted in accordance with the Master Plan requirements of Phases 1 and 2 of the *Municipal Class Environmental Assessment* (2000, as amended in 2007, 2011 & 2015), approved under the *Ontario Environmental Assessment Act*.

We want to hear from you

As the Project Team reviews and updates the W/WW MP, it is important to engage with the public to identify the community's servicing needs and priorities. Members of the public are invited and encouraged to comment on the project at any time during the Study.

Those interested in this study are invited to participate by:

- Visiting the study website at www.speakup.oxfordcounty.ca/wwwmp
- Subscribing to the study mailing list to receive notices of future consultation opportunities. To be added to the mailing list, contact one of the key contacts below.
- Attending future Public Consultation Centres (PCC). PCCs will be held at various locations around the County. More details about the PCCs will be provided as they become available
- Providing your comments through the study website on *Speak Up, Oxford!* at www.speakup.oxfordcounty.ca/wwwmp, or submit to the key study contacts listed below.

A draft W/WW MP Study Report will be prepared and made available for public review and comment prior to its finalization.

Contacts for information

Travis Pawlick, P.Eng.
Supervisor, Water and Wastewater
Oxford County
519-539-9800 x3111 | tpawlick@oxfordcounty.ca

John Tyrrell, MSc (Eng.), P.Eng.
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038 | jttyrrell@rvanderson.com

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Posted March 14, 2022

APPENDIX 2.2.2
PCC 1 Notice



Notice of Public Consultation Centre #1

Oxford County Water and Wastewater Master Plan

Oxford County has initiated the development of a Water and Wastewater Master Plan (W/WW MP) to provide the County with strategic long-term water and wastewater servicing strategies that will support existing servicing needs and accommodate further projected population and employment growth to the year 2046.

About the Water and Wastewater Master Plan

The 2024 Water and Wastewater Master Plan (W/WW MP) is a long-term planning document that identifies municipal water treatment, water supply, wastewater collection and wastewater treatment strategies to meet Oxford County's growth needs and service goals in existing serviced areas. The plan will:

- Consider population trends and servicing needs across the County;
- Provide infrastructure solutions that meet the County's level of service framework and objectives; and,
- Recognize water conservation measures and wastewater treatment efficiency optimization to support the County's commitment to environmental sustainability.

R.V. Anderson Associates Limited has been retained by Oxford County to complete the W/WW MP. Key objectives of the master plan include:

- Assess the current water and wastewater systems performance and deficiencies;
- Offer solutions that evaluate full lifecycle costs to understand overall financial implications and sustainability; and,
- Develop a system plan, which will ensure reliability, redundancy, and security of water resources for existing and future consumers through to the year 2046.

The W/WW MP is being conducted in accordance with the Master Plan requirements of Phases 1 and 2 of the *Municipal Class Environmental Assessment* (2000, as amended in 2007, 2011 & 2015), approved under the *Ontario Environmental Assessment Act*.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

We want to hear from you

Public and technical agency consultation will be fundamental in developing the Master Plan, and members of the public are invited and encouraged to comment on the project at any time during the Study.

The Project Team is hosting the study's first Public Consultation Centre (PCC) to introduce the 2024 Water and Wastewater Master Plan. This will be a virtual (online) event held:

Thursday, September 29, 2022

5:00 PM – 7:00 PM

Log-in details at www.oxfordcounty.ca/wwwmp

Representatives from the County and its consultants will be available at the PCC to answer questions and discuss the next steps in the study.

In addition to PCC #1, the Project Team is attending local events to engage directly with members of the community. Pop-up events are planned for:

Wednesday, September 14: Canada's Outdoor Farm Show in Woodstock

Friday, September 23: Ribfest in Tillsonburg.

Events will be advertised via social media, *Speak Up Oxford!*, and local media prior to the event.

The comment period for the W/WW MP PCC#1 closes on **Wednesday, October 19, 2022**.

Contacts for information

Travis Pawlick, P.Eng.
Supervisor, Water and Wastewater
Oxford County
1-800-755-0394 x3111 | tpawlick@oxfordcounty.ca

John Tyrrell, MSc (Eng.), P.Eng
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038 | jtyrrell@rvanderson.com

Posted September 9, 2022

APPENDIX 2.3.3
PCC 2 Notice



Notice of Public Consultation Centre #2

Oxford County Water and Wastewater Master Plan

Oxford County has initiated the development of a Water and Wastewater Master Plan (W/WW MP) to provide the County with strategic long-term water and wastewater servicing strategies that will support existing servicing needs and accommodate further projected population and employment growth to the year 2046.

About the Water and Wastewater Master Plan

The 2024 Water and Wastewater Master Plan (W/WW MP) is a long-term planning document that identifies municipal water treatment, water supply, wastewater collection and wastewater treatment strategies to meet Oxford County's growth needs and service goals in existing serviced areas. The plan will:

- Consider population trends and servicing needs across the County;
- Provide sustainable infrastructure solutions that are consistent with and conform to Provincial policies, legislation and support the County's Official Plan and strategic initiatives;
- Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure.

R.V. Anderson Associates Limited has been retained by Oxford County to complete the W/WW MP. Key objectives of the master plan include:

- Assess the current water and wastewater systems performance and deficiencies;
- Offer solutions that evaluate full lifecycle costs to understand overall financial implications and sustainability; and,
- Develop a system plan, which will ensure reliability, redundancy, and security of water resources for existing and future consumers through to the year 2046.

The W/WW MP is being conducted in accordance with the Master Plan requirements of Phases 1 and 2 of the *Municipal Class Environmental Assessment* (2000, as amended in 2007, 2011 & 2015), approved under the *Ontario Environmental Assessment Act*.

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

We want to hear from you

Public and technical agency consultation will be fundamental in developing the Master Plan, and members of the public are invited and encouraged to comment on the project at any time during the Study.

The Project Team is hosting the study's second Public Consultation Centre (PCC) to review the draft recommendations of 2024 Water and Wastewater Master Plan. This will be a virtual (online) event held:

Tuesday, June 27, 2023

6:00 PM – 8:00 PM

Log-in details at www.oxfordcounty.ca/wwwmp

Representatives from the County and its consultants will be available at the PCC to answer questions and discuss the next steps in the study.

The final Master Plan document will also be posted for public review following endorsement by Council.

The PCC will be advertised via social media, published on the project page *Speak Up Oxford!*. Area Municipalities and registered project followers will receive an email regarding the PCC.

Contacts for information

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Posted June 9, 2023

APPENDIX 2.2.4

Council Report and Resolution on
2024 Water and Wastewater Master Plan
July 12, 2023



To: Warden and Members of County Council
From: Director of Public Works

**See amended
resolution**

2024 Water and Wastewater Master Plan

RECOMMENDATIONS

1. That County Council endorse, in principle, the draft 2024 Water and Wastewater Master Plan as the recommended servicing strategies to meet Oxford's growth needs to 2046 as well as provide effective on-going continuity to existing serviced settlement areas;
2. And further, that County Council direct Staff to file a Notice of Completion and commence the 45-day public review period as required under the Municipal Class Environmental Assessment (MCEA) process.

REPORT HIGHLIGHTS

- The purpose of this report is to seek County Council's endorsement, in principle, of the draft 2024 Water and Wastewater Master Plan (W/WW MP) which provides a strategic roadmap to service existing needs and accommodate future growth.
- The draft 2024 W/WW MP identifies water and wastewater infrastructure requirements to accommodate projected population and employment growth to 2046 in accordance with the 2020 Provincial Policy Statement and the County's approved Phase I Comprehensive Review (2020), while ensuring service continuity to existing serviced settlement areas. This approach strategically focuses future growth and development primarily in designated community settlement areas (i.e. existing areas that are currently fully or partially serviced).
- The draft 2024 W/WW MP is centered around several key servicing strategies to address risk and capacity considerations, including: optimization of existing infrastructure, new well supplies, water/wastewater treatment plant expansions, extensions of existing water distribution / wastewater collection systems, system redundancy projects, water conservation and sewer system inflow and infiltration reduction.
- A comprehensive public consultation and engagement campaign was undertaken throughout the Master Plan as per the MCEA process. The process involved Community Members, Area Municipalities, Review Agencies, Indigenous Communities, public interest groups, businesses and other stakeholders. Following the potential issuance of the Master Plan Study Notice of Completion, the final consultative stage will include a 45 day review opportunity for all interested parties to comment on the draft W/WW MP Study Report.

Implementation Points

Upon Council approval, staff will proceed to issue and file a Notice of Completion for the draft 2024 W/WW MP. Copies of the final draft of the Master Plan Study Report will be available upon request as well as posted to the Oxford County website and online engagement hub at *Speak Up, Oxford!*.

Following a 45 day public review period and subject to comments received, the 2024 W/WW MP Class Environmental Assessment (Class EA) Study Report can be finalized and filed.

It is recognized that the 2024 W/WW MP proceeded under Approach 1 of the MCEA process and does not address MCEA requirements for Schedule B and Schedule C projects. Class EA Studies for these applicable projects, as identified in the W/WW MP, will be carried out in greater detail in the future at which time the public, agencies, and Indigenous Communities will be provided an opportunity for ongoing review and comment on the same.

Financial Impact

There are no financial impacts to the 2023 Business Plan and Budget based on the recommendations contained within this report.

Once finalized, the 2024 W/WW MP will become an input to the County's 2024 Water and Wastewater Development Charges Technical Study which will inform the upcoming 2024 Development Charges Background Study. It is anticipated that the approved growth forecast to 2046 and associated capital implementation plan may be further refined through the ongoing 2024 Development Charges process.

Future implementation of projects identified in the 2024 W/WW MP will be considered by County Council through the annual budgeting process to which approved projects will be integrated within the County's 2022 Asset Management Plan which focuses on lifecycle needs of existing projects and incorporates the needs of growth projects identified in the Development Charges Background Study.

Increases to the level of services provided, or addition of new services, are not explicitly accounted for within the annual contribution to reserves. It is likely that additional funding and staff resourcing will be required to implement all projects identified in the W/WW MP, including the use of long-term debenture funding, increases to rates and possible prioritization of service projects over lifecycle projects to accommodate funding limitations. Staff will seek out additional funding opportunities wherever possible.

Communications

As noted in Report No. [PW 2022-47](#), an extensive public consultation and engagement program was carried out during the development of the 2024 W/WW MP in order to provide meaningful opportunities for public, Indigenous Communities and stakeholder input. The feedback and input received has been summarized in the draft 2024 W/WW MP Study Report.

The community engagement around the 2024 W/WW MP was undertaken through a range of tools to seek feedback from Oxford's various communities and demographics as follows:

- **Speak Up, Oxford!** This serves as the engagement hub for consultation. It was published in March 2022, with 2300 total visits to the site since its launch.
- **Feedback surveys and question form:** Together, the interactive tools solicited input from 94 visitors who reviewed information or participated in feedback forms (surveys) and/or a questions tool. There were also 583 downloads of documents (public notices, Public Consultation Centre presentations).
- **Public Consultation Centre (PCC) #1:** Taking place on September 29, 2022, this event drew approximately 10 participants for a nearly one and a half hour discussion.
- **PCC #2:** Took place on June 27, 2023, this event drew approximately 25 participants over a nearly two-hour discussion.
- **"Pop-up" events:** These in-person events provided an opportunity for members of the public to speak directly with the project team during the first consultation window, including Canada's Outdoor Farm Show (September 14, 2022), Tillsonburg Ribfest (September 23 and 24, 2022), Ingersoll Town Council Chamber (September 26, 2022).
- **Print advertising:** For audiences that prefer to receive news through newspapers and community publications, information on how to provide input was outlined in 28 **print ads** and **public notices** during the consultation period. Publications encompassed the *Oxford Review*, *Norfolk-Tillsonburg News*, *Woodstock Sentinel Review*, *Ayr News*, *Wilmot-Tavistock Gazette*, *St. Marys Independent*, *What's On Woodstock* and *Village Voice Oxford* editions.
- **Digital (web) and social media ads:** There was extensive online advertising throughout both consultation phases encompassing Facebook and Instagram for social media and digital advertising on popular websites geo-targeted to Oxford County residents. "Organic" (non-paid) postings on the County's social media pages has been ongoing.
- **Media:** A **news release** and posts to the Oxford County **website** were performed.
- **Stakeholder consultation meetings:** Sessions with Area Municipalities, community partners and other key stakeholders ensured such parties were informed about the process and were given opportunity to provide input.

Overall, feedback received through the public consultation and engagement campaign indicated general support for the 2024 W/WW MP strategy. The feedback centered on water and wastewater system service provisions, feasibility and cost effectiveness related to the following topics:

- Drinking water quality improvements (aesthetic);
- Water and wastewater servicing reliability;
- Changing servicing demands and infrastructure expansion (growth considerations);
- Water conservation programs and initiatives;
- Wastewater and water treatment enhancements; and
- Climate change resiliency.

Report No. PW 2023-33 will be circulated to Area Municipalities for information.

Strategic Plan (2020-2022)

					
WORKS WELL TOGETHER	WELL CONNECTED	SHAPES THE FUTURE	INFORMS & ENGAGES	PERFORMS & DELIVERS	POSITIVE IMPACT
1.ii.		3.iii.	4.i. 4.ii.	5.ii.	

DISCUSSION

Background

As noted in Report No. PW 2022-47, the draft 2024 W/WW MP was developed as a strategic planning document which prescribed Oxford County’s comprehensive long-term water and wastewater servicing strategies that will support existing needs and accommodate future growth in population and employment through to the year 2046 in accordance with the 2020 Provincial Policy Statement and the County’s approved Phase I Comprehensive Review (2020).

The draft 2024 W/WW MP was undertaken in accordance with the MCEA process for Master Plans (Appendix 4, Approach #1 of the MCEA, October 2000, as amended in 2007, 2011, 2015 and 2023). Accordingly, the draft 2024 W/WW MP considered all reasonable water and wastewater servicing alternatives and developed a preferred alternative that offered the lowest potential impacts on the natural, cultural, social and economic environment of the community.

In addition to the social, cultural, economic and environmental considerations, focus was placed on sustainability, constructability, operability and service integration with other existing or future water, wastewater and road infrastructure projects. The alternative water and wastewater servicing strategies were assessed for the greatest utility and potential impacts using the evaluation criteria framework shown in Table 1.

Table 1: Water and Wastewater Servicing Evaluation Criteria

Category	Criteria
Technical	<ul style="list-style-type: none"> • Constructability • Improvement to operations • Infrastructure required • Approval requirements • Risk mitigation– regulatory, supply security, climate change, etc.
Social and Cultural	<ul style="list-style-type: none"> • Public acceptance • Impact to cultural heritage infrastructure and landscapes • Impact to archaeological infrastructure and resources
Environmental	<ul style="list-style-type: none"> • Impact to aquatic and terrestrial species and habitat • Impact to surface water quantity and quality • Impact on climate change
Economic	<ul style="list-style-type: none"> • Capital costs • Operation and maintenance costs • Allows for planned community growth

Comments

Preferred Servicing Strategies

Following review of opportunities and constraints across Oxford County's 17 municipal drinking water systems and 11 wastewater systems, the need to develop alternative servicing concepts and strategies were based on ensuring that there is sufficient treatment and transmission capacity available in time to service projected growth as well as sustain service to existing residents and businesses.

Of note, the draft 2024 W/WW MP was established to service growth and development that was focused within designated settlement areas, including fully serviced (municipal) large urban centers and villages as well as partially serviced (municipal) villages. The draft 2024 W/WW MP was directed to assume that any current privately serviced (well and/or septic) villages and/or rural clusters will remain on such servicing given that County approved growth was limited to minor infilling in those areas.

The preferred water and wastewater strategies were developed with the intent to:

- Optimize and maximize the available capacity in existing infrastructure before adding new infrastructure that may be required for additional treatment or transmission capacity;
- Provide reliability, redundancy and security in the infrastructure systems;
- Develop infrastructure systems which meet the MECP legislative requirements, best management practices and County's established asset level of service framework;
- Utilize proven, reliable, and financially sustainable technologies;
- Recognize water conservation and sewage system infiltration reduction measures which support environmental sustainability;
- Optimize pumping and storage infrastructure to maintain level of service under emergency conditions and extreme weather events; and
- Offer infrastructure solutions that recognize potential for growth beyond current planning horizons.

A high-level executive summary of the draft 2024 W/WW MP strategies, associated key actions and implementation plan is provided in Attachment 1. The complete final draft W/WW MP Report can be viewed on W/WW MP project webpage at <https://speakup.oxfordcounty.ca/wwwmp>.

Preferred Water Servicing Strategy and Projects

The preferred water servicing strategy involves extending existing water distribution systems (watermain extensions, new booster pumping stations, new storage facilities) to service infill areas and employment lands, optimizing existing well supply yields, expanding existing water treatment plant capacities, developing new well supplies, ongoing source water protection initiatives and continuing water conservation best management practices.

The preferred water servicing strategy has identified numerous water capital projects which are required to service existing needs and anticipated growth in Oxford County. The overall water capital program from 2024 to 2046 has been estimated to be approximately \$245 million (2023 dollars).

Below is a list of significant water projects for various County drinking water systems (DWS) anticipated for implementation over this timeframe:

Township of Blandford-Blenheim

- *Drumbo DWS* – Standby power to existing wells, trunk watermain extensions/upsizing, new well supply, new water treatment plant with filtration
- *Plattsville DWS* – Water treatment plant filtration upgrades, new well supply
- *Bright DWS* - Plattsville to Bright water system interconnection, Well 5 decommissioning

Township of East Zorra-Tavistock

- *Tavistock DWS* – New Well Supply, New Treatment Plant with Onsite Water Storage, Trunk watermain extensions/upsizing, Water Treatment Plant Filtration Upgrades, Water Tower Rehabilitation
- *Innerkip DWS* – Water Infrastructure Refurbishment
- *Hickson DWS* – Water Infrastructure Refurbishment

Township of Zorra

- *Embro DWS* – New Water Storage, Reservoir disinfection (contact time) alterations, water storage enhancements
- *Thamesford DWS* – Trunk watermain extensions, Reservoir disinfection (contact time) alterations
- *Lakeside DWS* – Water Infrastructure Refurbishment

Township of South-West Oxford

- *Mount Elgin DWS* – Water Treatment Plant Optimization, Ingersoll to Mount Elgin Water System Interconnection
- *Beachville DWS* – New Well Supply and Water Storage
- *Brownsville DWS* – Water Quality Improvements, Water Treatment Plant Filtration Addition
- *Dereham Centre DWS* – Water Infrastructure Refurbishment

Township of Norwich

- *Norwich-Otterville-Springford DWS* – Norwich Water Treatment Plant Filtration and Storage

Town of Tillsonburg

- *Tillsonburg DWS* – Upgrades to Wells 3 and 6A Treatment Facilities (Off-line), Well 7A Filtration Upgrades, Replacements of Wells 1A and 2, Standby Power, Water Storage Expansion, Trunk watermain extensions/upsizing, Source Water Protection

Town of Ingersoll

- *Ingersoll DWS* - Trunk watermain extensions/upsizing, New Booster Pumping Station, New Elevated Water Storage, Water Quality Improvement Pilot (taste / smell)

City of Woodstock

- *Woodstock DWS* – Standby Power, Southside Water Treatment Plant Replacement, Feedermain Twinning, Upgrades to Wells 6 and 9, Trunk watermain extensions/upsizing, New Water Booster Pumping Stations, Pressure Zone Boundary Adjustments, Source Water Protection

Preferred Wastewater Servicing Strategy and Projects

The preferred wastewater servicing strategy involves expanding existing wastewater collection systems (sewer mains extensions, new/upsized forcemains, new/upgraded sewage pumping stations) to service infill areas and employment lands, rehabilitating aging trunk sewers, expanding existing water treatment plant capacities and initiating sewer system inflow and infiltration reduction best management practices.

The preferred wastewater servicing strategy has identified numerous wastewater capital projects which are required to service existing needs and anticipated growth in Oxford County. The overall wastewater capital program from 2024 to 2046 has been estimated to be approximately \$329 million (2023 dollars). Below is a list of significant wastewater projects for various County wastewater systems (WWS) anticipated for implementation over this timeframe:

Township of Blandford-Blenheim

- *Drumbo WWS* – Wastewater Treatment Plant Capacity Expansion (Phase 2), Standby power to SPS locations
- *Plattsville WWS* – Wastewater Treatment Plant Optimization, Lagoon biosolids removal and berm repair, Trunk sewer extensions, forcemain twinning and capacity review

Township of East Zorra-Tavistock

- *Tavistock WWS* – Wastewater Treatment Plant Capacity Expansion (Phase 2), Sewage Pumping Station Capacity Upgrades, Trunk sewer extensions/upsizing, Sewer System Inflow and Infiltration Reduction
- *Innerkip WWS* – Upsizing/Twinning of Forcemain to Woodstock

Township of Zorra

- *Embro WWS* – Sewage Pumping Station Capacity Upgrades, Upsizing/Twinning of Forcemain to Woodstock
- *Thamesford WWS* – Wastewater Treatment Plant Upgrades

Township of South-West Oxford

- *Mount Elgin WWS* – Wastewater Treatment Plant Capacity Expansion (Phase 3 / 4), Ingersoll to Mount Elgin Wastewater System Interconnection (Forcemain)

Township of Norwich

- *Norwich WWS* – Wastewater Treatment Plant Capacity Expansion (Phase 2), Lagoon biosolids removal and berm repair

Town of Tillsonburg

- *Tillsonburg WWS* – Wastewater Treatment Plant Capacity Expansion (Phase 2), Trunk sewer rehabilitation, Upgrades to Sewage Pumping Stations, Forcemain Upgrades, Trunk sewer extensions/upsizing

Town of Ingersoll

- *Ingersoll WWS* - Trunk sewer extensions/upsizing, New Sewage Pumping Stations, New Forcemains, New Trunk sewer river crossing, Wastewater Treatment Plant Upgrades

City of Woodstock

- *Woodstock DWS* – Trunk sewer extensions/upsizing, New Forcemains, New/Upgraded Sewage Pumping Stations, Wastewater Treatment Plant Upgrades, Brick Pond Trunk sewer realignment, Sewer Inflow and Infiltration Reduction

Conclusions

As part of integrated growth management in Oxford County, the water and wastewater servicing strategies and identified infrastructure projects will accommodate the servicing needs in accordance with the County's approved Phase I Comprehensive Review (2020) growth forecast. Further, the preferred servicing strategies will enhance existing system needs and reliability of water and wastewater servicing provisions for existing County residents and businesses.

All project needs have been incorporated in the County's water and wastewater multi-year capital implementation plan to 2046, at a total estimated cost of approximately \$574 million between the years of 2024 and 2046 (~ \$25 million annually).

It is anticipated that the approved growth forecast to 2046 and associated capital implementation plan may be further refined through the ongoing 2024 Development Charges process.

SIGNATURES

Report Author:

Original signed by

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Supervisor of Water and Wastewater Technical Services

Departmental Approval:

Original signed by

David Simpson, P.Eng., PMP
Director of Public Works

Approved for submission:

Original signed by

Benjamin R. Addley
Chief Administrative Officer

ATTACHMENT

Attachment 1 – Draft 2024 Water and Wastewater Master Plan Executive Summary (July 2023)

Draft 2024 Oxford Water and Wastewater Master Plan

Executive Summary

July 6, 2023



**2024 Oxford Water and Wastewater Master Plan
Executive Summary**

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1.0 INTRODUCTION

The County of Oxford (“the County”) has commenced a Water and Wastewater Master Plan (W/WW MP) in order to develop, evaluate and determine a long term water and wastewater approach to manage current servicing needs as well as accommodate future projected population and employment growth to the year of 2046.

1.1 Background

The County owns 17 municipal drinking water systems and 11 municipal wastewater systems which includes, but is not limited to, approximately 735 km of distribution watermains, 34 water treatment plants, 42 water reservoirs/storage towers, 6 water booster stations, 61 active groundwater supply wells, 600+ km of sewers and forcemains, 36 sewage pumping stations, 9 wastewater treatment plants, SCADA systems, 4 bulk water stations and a biosolids management facility.

The County holds full municipal authority and is responsible for all water and wastewater system services, including water treatment, wastewater treatment, water distribution and wastewater collection, as per Section 11(11) of the Municipal Act, 2001.

1.2 Master Plan Goals

The following goals were developed for the W/WW MP:

1. Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046;
2. Develop water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County’s Official Plan and strategic initiatives;
3. Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure; and
4. Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability.

1.3 Study Area

The Study Area below incorporates the County’s entire geographical region which includes its eight Area Municipalities - Township of Blandford-Blenheim, Township of East Zorra-Tavistock, Town of Ingersoll, Township of Norwich, Township of South-West Oxford, Town of Tillsonburg, City of Woodstock, and Township of Zorra. The Study Area is made up of rural areas, settlement clusters and smaller urban centres which cover approximately 2,000 km² as shown in Figure ES-1.1.

In order to provide the necessary land use planning and servicing basis for the settlement expansions that are required to accommodate this growth, the County and some Area Municipalities have recently initiated and/or completed a number of Secondary Plans. The Secondary planning processes are shown in Figure ES-1.2.

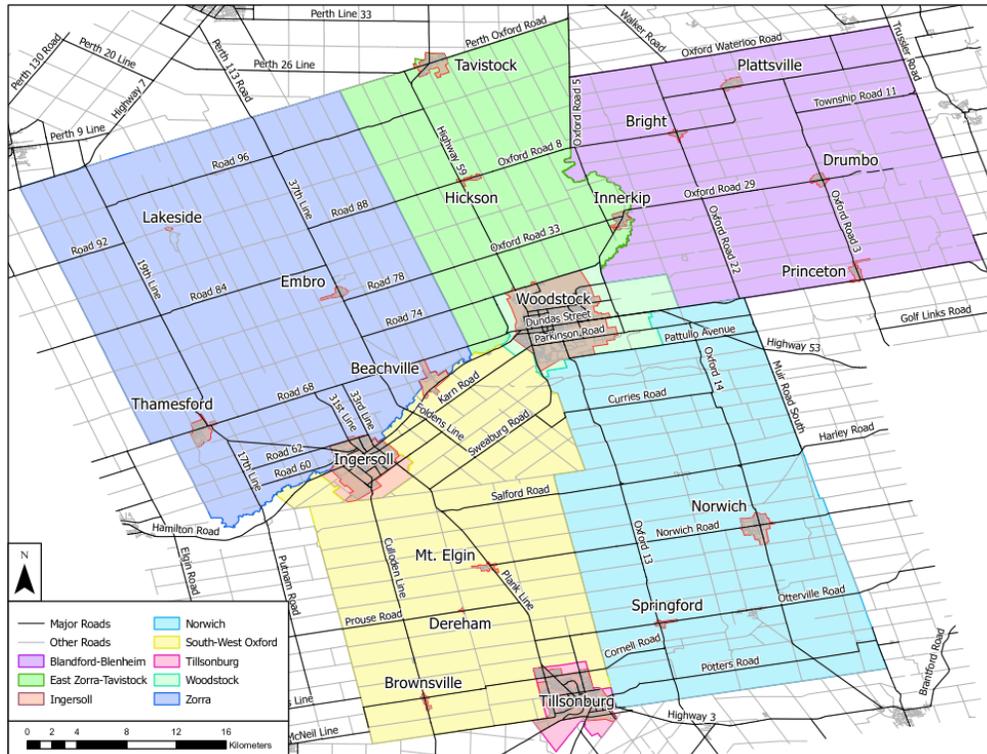


Figure ES-1.1: Water and Wastewater Master Plan Study Area

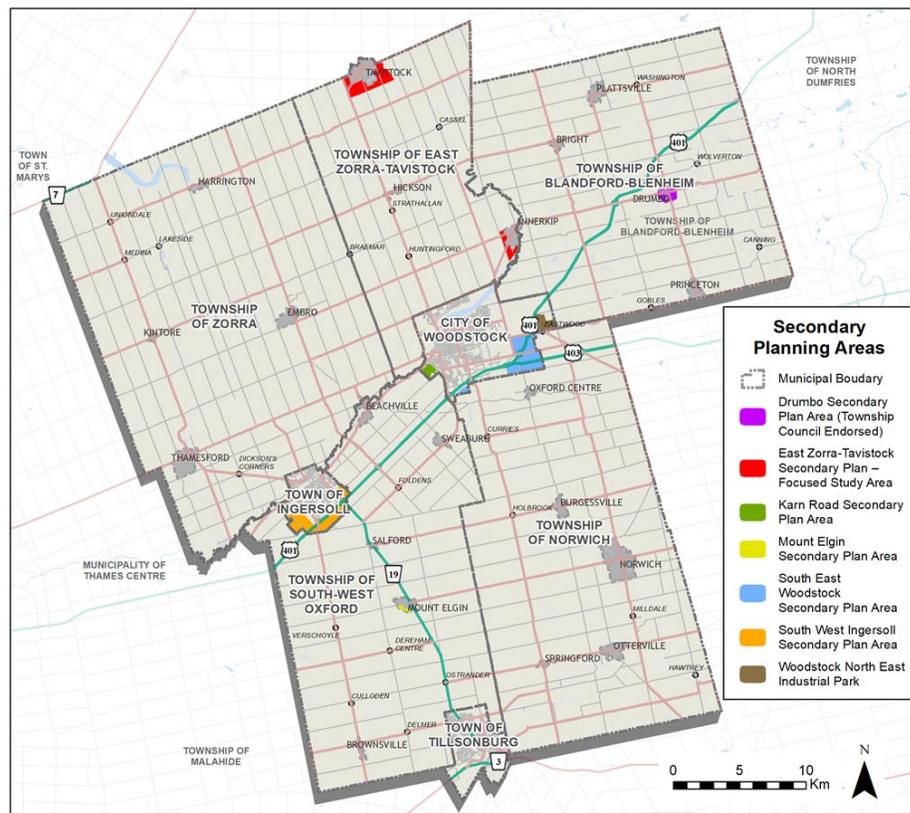


Figure ES-1.2: Oxford County's Secondary Planning Areas

2.0 MASTER PLANNING PROCESS

2.1 Class Environmental Assessment and Master Plan Process

The Master Plan process provides the basis for developing long-range water and wastewater servicing plans which integrates infrastructure requirements for existing / future land use and evaluates all reasonable servicing alternatives with considerations to natural, social, and economic environments (“triple bottom line”).

In this regard, preparation of the 2024 W/WW MP followed the Municipal Class Environmental Assessment (Class EA) process which is an approved planning and design process under the *Ontario Environmental Assessment Act, 1990*. The W/WW MP was developed following Approach #1 of the Municipal Class EA process which involves a broad scope and a high level of assessment of the projects identified in the Study Area. Projects were identified and classified into schedules based on the type of undertakings and related activities (A, A+, B, C).

The W/WW MP serves to satisfy Phases 1 (identify the problem) and 2 (identify alternative solutions to the problem) of the five-phase Municipal Class EA planning and design process. While the Class EA requirements for Schedule A and A+ were fulfilled through the above approach, other project-specific investigations may be required to satisfy additional Class EA requirements (Phases 3 & 4) before implementation of certain individual projects (i.e. Schedule B and C Class EA Studies).

2.2 Problem and Opportunity Statement

The County has defined the following as its statement of the problem/opportunity to be addressed by the W/WW MP:

“To identify preferred water and wastewater servicing strategies to meet Oxford’s growth needs to 2046 as well as provide effective on-going continuity to existing serviced settlement areas across Oxford County as appropriate.”

The W/WW MP will afford on-going servicing continuity for the communities (designated as settlement areas in the Oxford County Official Plan), including fully serviced (municipal) large urban centres and villages, which are intended to be the primary focus for future growth and development, as well as partially serviced villages. The W/WW MP was directed to assume that any rural villages that are privately serviced and/or rural clusters will remain on such servicing given growth is limited to minor infilling in these areas.

The 2024 W/WW MP was developed to service planned population and employment growth forecasts to the year 2046 which are based on the approved 2020 Oxford County Phase 1 Comprehensive Review. As part of the water and wastewater servicing assessment, a sensitivity analysis was also undertaken to evaluate the potential impacts of higher than forecasted growth on the County’s water and wastewater infrastructure needs. The purpose of this analysis was to provide the County with additional information and direction necessary to adjust the infrastructure improvement plans to accommodate higher than forecasted growth should it be identified through upcoming forecast updates, or otherwise materialize over the planning period.

3.0 PUBLIC CONSULTATION AND ENGAGEMENT

In keeping with the principles of the Municipal Class EA process, the W/WW MP featured a high degree of public and stakeholder involvement. The Class EA process requires stakeholder consultation to incorporate input from interested or impacted groups. Potential stakeholders included but were not limited to public, review agencies, Indigenous Communities, Oxford County Internal staff and Council departments, Area Municipality Councils and staff, and Railways, Transit Agencies, Utilities, etc.

The following summarizes the public announcements and consultation opportunities for public and agency input and participation in the study:

- Notice of Study Commencement in March 2022;
- News releases, radio ads, and social media posts;
- Two virtual Public Consultation Centres, in September 2022 and June 2023;
- Six in person consultation events at Canada's Outdoor Farm Show in Woodstock (September 2022), Ribfest in Tillsonburg (September 2022), Ingersoll Town Council Chambers (September 2022, March 2023), Oxford Council Chambers in Woodstock (March 2023), and Tillsonburg Council Chambers (March 2023);
- Updates and references to the study through the Oxford County website and "Speak-Up Oxford" (<https://oxfordcounty.ca/wwwmp>);
- Five advisory committee meetings with the Internal Technical Review Committee (InTAC) (April 2022, April & May 2023) and External Technical Review Committee (ExTAC) (April 2022, June 2023); and
- Presentations to Oxford County County.

Agencies, stakeholders, and Indigenous Communities were notified at key points in the study process, and they were encouraged to provide any information they felt was necessary for the Project Team to consider during the study. All comments received from agencies, stakeholders and Indigenous Communities were recorded and considered throughout the Master Plan process.

4.0 MASTER PLANNING PRINCIPLES

To review the issues and opportunities in the County with regards to water and wastewater servicing to the period to 2046, the following principles shown in the table below were developed by the County.

Table ES-4.1: Oxford County Water and Wastewater Master Planning Principles

2024 Water and Wastewater Master Plan
Integrate growth management planning and infrastructure servicing in a manner which ensures alignment with County’s Official Plan and Strategic Initiatives
Offer infrastructure solutions that recognize potential for growth beyond current planning horizons
Develop infrastructure systems which meet the County’s established asset level of service framework and MECP legislative requirements
Maximize the use of available existing capacity in infrastructure, while considering sustainable infrastructure expansions
Provide reliability, redundancy, and security in the infrastructure systems, including consideration of reserve capacity
Optimize pumping and storage infrastructure to maintain level of service under emergency conditions
Recommend proven, reliable, financially, and sustainable technologies that meet long-term servicing requirements
Recognize water conservation and efficiency measures to support environmental sustainability
Consider infrastructure operating and maintenance costs, including full lifecycle costing, to evaluate overall long-term financial implications and sustainability

5.0 WATER AND WASTEWATER SERVICING STRATEGY DEVELOPMENT

The process of determining Oxford County’s long term water and wastewater servicing needs involved a number of tasks and evaluation processes that were undertaken as part of the W/WW MP process. Some of the key tasks undertaken included:

- Analyzing planning information and undertaking growth sensitivity analyses;
- Establishing existing system conditions;
- Identifying issues and constraints for each system;
- Developing design criteria and projections of future water demands and wastewater flows;
- Assessing existing and future infrastructure capacity;
- Assessing risk;
- Developing servicing evaluation criteria;
- Developing alternative servicing concepts;
- Evaluating alternative servicing strategies; and
- Determining preferred servicing strategy, implementation, and phasing.

There are potential considerations that will influence the County’s ability to provide water and wastewater services with its current infrastructure and these will have to be considered in planning existing and future works as summarized in Table ES-5.1.

Table ES-5.1: Summary of Major Water and Wastewater System Considerations

Water System	Wastewater System
<ul style="list-style-type: none"> • Changes in water quality requirements • Variability in individual well yields • Power Interruptions • Climate Change – lowering of water table • Source water protection – human impacts on water quality and quantity 	<ul style="list-style-type: none"> • Changes to regulated effluent quality • Changes in discharge requirements due to the receiving stream’s assimilative capacity. • Power Interruptions • Climate Change – increased sewer infiltration/inflow, flood levels impacting facilities

6.0 PREFERRED WATER SERVICING STRATEGY

6.1 Overall Water Strategy Summary

The preferred water servicing strategy ensures the County’s municipal drinking water systems have adequate water supply, water treatment capacity, sufficient water system storage and pumping/transmission capabilities to the year 2046. The strategy was based on a combination of servicing alternatives which included:

- Optimizing existing well supply and water distribution conveyance infrastructure.
- Extending existing water distribution systems (watermain extensions, new booster pumping stations, new storage facilities, system interconnections) to service infill areas and employment lands.
- Developing new well supplies and expanding existing water treatment plant capacities.
- Ongoing source water protection initiatives and continuation of water conservation best management practices.
- Focusing growth and development within designated settlement areas, including fully serviced (municipal) large urban centers and villages as well as partially serviced (municipal) villages.

Specific alternatives for each drinking water system were then further developed based on the type of issue found within each system as summarized in Table ES-6.1.

Table ES-6.1: Summary of Solutions Reviewed for Water Issues

Issues	Servicing Solutions Reviewed
Water Supply	Additional standby production well Interconnection with another system Specialized well rehabilitation Water conservation

Issues	Servicing Solutions Reviewed
Water Treatment	Treatment at well site Treatment at centralized site (multiple wells) Treatment technologies (as applicable)
Water Distribution and Booster Pumping	Refurbish/upsized existing watermains New watermains Refurbish existing or build new BPS/standpipe Revise existing or create new pressure zones
Water Storage	In-ground Storage (and associated BPS) Elevated Storage
Risk	Backup power generation Source water protection and emerging water quality threats System redundancy and reliability

6.2 Servicing Requirements by System

As detailed in Table ES-6.2 (located on page ES-13), the preferred water servicing strategy has identified numerous water capital projects which are required to service existing needs and anticipated growth (infill areas, current/future secondary planning areas) in Oxford County to the year 2046. The overall water capital program from 2024 to 2046 has been estimated to be approximately \$245 million (2023 dollars).

Key servicing requirements for each municipal drinking water system (DWS) are as follow:

- **Ingersoll DWS**
 - Trunk watermain extensions/upsizing, New Booster Pumping Station, New Elevated Water Storage, Water Quality Improvement Pilot
- **Tillsonburg DWS**
 - Upgrades to Wells 3 and Well 7A treatment facilities, Replacements of Wells 1A and 2, 6A, and 11, Standby Power, Water Storage Expansion, Trunk watermain extensions/upsizing, Source Water Protection.
- **Woodstock DWS**
 - Standby Power, Southside Water Treatment Plant Replacement, Feedermain Twinning, Upgrades to Wells 6 and 9, Trunk watermain extensions/upsizing, New Water Booster Pumping Stations, Pressure Zone Boundary Adjustments, Source Water Protection.
- **Norwich**
 - **Oxford South DWS (Norwich, Springford and Otterville)**
 - Norwich Well 4 Water Treatment Plant Filtration Upgrades and Storage, New Standby Well supply.

- **Blandford Blenheim**
 - **Drumbo-Princeton DWS**
 - Standby power to existing wells, trunk watermain extensions/upsizing, new well supply, new Water treatment plant with filtration.
 - **Plattsville DWS**
 - Water treatment plant filtration upgrades, New Standby Well supply.
 - **Bright DWS**
 - Plattsville to Bright Water System Interconnection, Well 5 Decommissioning.
- **South-West Oxford**
 - **Mount Elgin DWS**
 - Mount Elgin Water Treatment Plant Optimization, Trunk Watermain Interconnection to Ingersoll Water System.
 - **Beachville DWS**
 - New Standby Well Supply and Water Storage.
 - **Brownsville DWS**
 - Water Quality Improvements, Water Treatment Plant Filtration.
 - **Dereham Centre DWS**
 - Water infrastructure refurbishment
- **East-Zorra Tavistock**
 - **Innerkip DWS**
 - Water infrastructure refurbishment.
 - **Tavistock DWS**
 - New Well Supply, New Treatment Plant with Onsite Storage, Trunk watermain extensions/upsizing, Water Treatment Plant Filtration Upgrades, Water Tower Rehabilitation.
 - **Hickson DWS**
 - Water infrastructure refurbishment.
- **Zorra**
 - **Thamesford DWS**
 - Trunk watermain extensions, Water Reservoir Contact Time Enhancements (reallocation to Storage).
 - **Embro DWS**
 - Water Reservoir Contact Time Enhancements (reallocation to Storage, Water Storage Enhancements at Embro Water Treatment Plant.
 - **Lakeside DWS**
 - Water infrastructure refurbishment.

7.0 PREFERRED WASTEWATER SERVICING STRATEGY

7.1 Overall Strategy Description

The preferred wastewater servicing strategy ensures the County’s municipal wastewater systems have sufficient wastewater conveyance capabilities and wastewater treatment capacity to the year 2046. The strategy was based on a combination of servicing alternatives which included:

- Optimizing existing wastewater collection and treatment plant infrastructure;
- Extending existing wastewater collection systems (sewer mains extensions, new/upsized forcemains, new/upgraded sewage pumping stations, system interconnections) to service infill areas and employment lands.
- Rehabilitating aging trunk sewers and initiating sewer system inflow and infiltration reduction best management practices.
- Expanding existing water treatment plant capacities.
- Focusing growth and development within designated settlement areas, including fully serviced (municipal) large urban centers and villages as well as partially serviced (municipal) villages.

Specific alternatives for each wastewater system were then further developed based on the type of issue found within each system as summarized in Table ES-7.1.

Table ES-7.1: Summary of Solutions Reviewed for Wastewater Issues

Component	Solutions Reviewed
Wastewater Collection and Conveyance	Trunk Sewers and Local Gravity Sewers Sanitary Pumping Station Forcemain Siphon (gravity flow underneath river) Infiltration and Inflow Control and Reduction
Wastewater Treatment	Headworks and Septage receiving facilities Liquid Treatment of wastewater (primary and secondary treatment) Tertiary Treatment (if required) to reduce nutrients in wastewater Wastewater effluent disinfection Biosolids Management (treatment, storage, disposal) Wet weather flow treatment (in some cases)

7.2 Detailed Servicing Requirements

As detailed in Table ES-7.2 (located on page ES-23), the preferred wastewater servicing strategy has identified numerous wastewater capital projects which are required to service existing needs and anticipated growth (infill areas, current/future secondary planning areas) in Oxford County to the year 2046. The overall wastewater 2024 - 2046 capital program is estimated at approximately \$329 million (2023 dollars).

Key servicing requirements for each municipal wastewater system (WWS) are as follow:

- **Ingersoll WWS**
 - Trunk sewer extensions/upsizing, New Sewage Pumping Stations, New Forcemains, New Trunk sewer river crossing, Wastewater Treatment Plant Headworks Upgrades.
- **Tillsonburg WWS**
 - Wastewater Treatment Plant Capacity Expansion (Phase 2), Trunk sewer rehabilitation, Upgrades to Sewage Pumping Stations, Forcemain Upgrades, Trunk sewer extensions/upsizing.
- **Woodstock WWS**
 - Trunk sewer extensions/upsizing, New Forcemains, New/Upgraded Sewage Pumping Stations, Wastewater Treatment Plant Upgrades, Brick Pond Trunk sewer realignment, Sewer Inflow and Infiltration Reduction.
- **Blandford Blenheim**
 - **Drumbo WWS**
 - Wastewater Treatment Plant Capacity Expansion (Phase 2), Standby power to SPS locations.
 - **Plattsville WWS**
 - Wastewater Treatment Plant Optimization, Lagoon biosolids removal and berm repair, Trunk sewer extensions, forcemain twinning and capacity review.
- **Norwich WWS**
 - Wastewater Treatment Plant Capacity Expansion (Phase 2), Lagoon biosolids removal and berm repair.
- **South-West Oxford**
 - **Mount Elgin WWS**
 - Wastewater Treatment Plant Capacity Expansion (Phase 3 / 4), Ingersoll to Mount Elgin Wastewater System Interconnection (Forcemain).
- **East-Zorra Tavistock**
 - **Tavistock WWS**
 - Wastewater Treatment Plant Capacity Expansion (Phase 2), Sewage Pumping Station Capacity Upgrades, Trunk sewer extensions/upsizing, Sewer System Inflow and Infiltration Reduction.
 - **Innerkip WWS**
 - Upsizing/Twinning of Forcemain to Woodstock.
- **Zorra**
 - **Thamesford WWS**
 - Wastewater Treatment Plant Upgrades.
 - **Embro WWS**
 - Sewage Pumping Station Capacity Upgrades, Upsizing/Twinning of Forcemain to Woodstock.

7.3 Supporting Policy and Strategic Projects

In addition to water and wastewater capital projects identified, a number of supporting policies and strategies were also identified to be developed over the Master Plan period as shown in Table ES-7.3.

Table ES-7.3: Total Cost of Policy Development and Strategic Projects

Project Description	1-5 Year	6-10 Year	+10 Year	Total
Fire Rated Systems Policy	\$50,000			\$50,000
Backup Power Prioritization Policy	\$35,000			\$35,000
Servicing Upgrades Policy	\$75,000	\$75,000	\$150,000	\$300,000
Connected Systems Rate Servicing Policy	\$75,000	\$75,000	\$75,000	\$225,000
2029 Water and Wastewater Master Plan	\$450,000			\$450,000
2034 Water and Wastewater Master Plan		\$450,000		\$450,000
2039 Water and Wastewater Master Plan			\$450,000	\$450,000
2044 Water and Wastewater Master Plan			\$450,000	\$450,000
2029 DC W/WW Technical Study		\$100,000		\$100,000
2034 DC W/WW Technical Study		\$100,000		\$100,000
2039 DC W/WW Technical Study			\$100,000	\$100,000
2044 DC W/WW Technical Study			\$100,000	\$100,000
TOTAL	\$685,000	\$800,000	\$1,325,000	\$2,810,000

8.0 IMPLEMENTATION

The preferred short and long term water and wastewater servicing strategies will be implemented in accordance with each project’s respective Class EA schedule:

- Schedule A/A+ projects will move directly forward to design and construction based on the designated schedule.
- Schedule B projects identified will proceed through separate stand-alone studies (a Project File Report will be completed for public filing) or as part of an integrated planning process under the Planning Act in order to satisfy Class EA requirements.
- Schedule C projects identified will continue to Phases 3 and 4 of the Class EA process and have an Environmental Study Report (ESR) completed for public filing. It is anticipated that these Schedule C projects will review and update Phases 1 and 2 of the Class EA process as part of the project scope.

During the subsequent steps of project implementation, primarily during detailed design, the following requirements will be considered:

- Finalization of property requirements;
- Refinement of infrastructure alignment, sizing, facility siting and costing;

- Refinement of construction methodologies;
- Completion of additional supporting investigations as required such as geotechnical, hydro-geotechnical and site specific environmental studies;
- Review and mitigation of potential construction related impacts; and
- Completion of all approval requirements including, but not limited to, provincial approvals (MECP, MNR), local municipality approvals (site plans, building permits), and conservation authority approvals.

Given the growth-related nature of the servicing strategies, these capital programs will also form the foundation for the water and wastewater components of Oxford County's Development Charges (DC) By-Law as part of the County's Integrated Growth Management Process shown below. Along with the Water and Wastewater Development Charges Technical Report, the 2024 Water and Wastewater Master Plan provides recommendations, provides supporting information, and identifies the capital requirements for the Oxford County DC By-Law which will be updated for 2024.

The respective projects identified in the 2024 W/WW MP will also provide a baseline for Oxford County's future capital budgets.

Table ES-6.2 - Detailed Water Capital Implementation Plan

Town of INGERSOLL WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 1,500,000	\$ 375,000	\$ 375,000	\$ 750,000
960307 ING	Groundwater Modelling	\$ 170,000	\$ 170,000		
NEW	Water Quality Improvements	\$ 700,000	\$ 350,000	\$ 350,000	
260300 ING	Specialized Well Rehabilitation Program	\$ 430,000	\$ 185,000	\$ 30,000	\$ 215,000
DISTRIBUTION - VACANT LANDS WITHIN URBAN BOUNDRY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
960325 ING	Watermain Replacements	\$ 30,325,000	\$ 8,284,000	\$ 7,347,000	\$ 14,694,000
960335 ING	Watermain (Cast Iron) Replacements	\$ 2,140,000	\$ 2,140,000		
NEW	Thames Street South Trunk Watermain Extension from CNR to Holcroft	\$ 324,000	\$ 324,000		
SOUTH THAMES RESIDENTIAL AREA					
NEW	Trunk Watermain on Hamilton Road from internal lands to existing water distribution system (Oakwood ??)	\$ 900,000	\$ 900,000		
NEW	Trunk Watermain through internal lands from Hamilton Road to north of CNR (near Thomas Street/Wallace Line)	\$ 720,000	\$ 720,000		
DISTRIBUION - EMPLOYMENT AREAS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
WALLACE LINE INDUSTRIAL PARK					
960337 ING	Wallace Line Trunk Watermain from Robinson Road to north of CNR (D)	\$ 220,000	\$ 220,000		
	Wallace Line Trunk Watermain from Robinson Road to north of CNR (C)	\$ 1,980,000	\$ 1,980,000		
SOUTHWEST INDUSTRIAL PARK					
Second Feed	Wallace Line Second Feedermain from Robinson Road to Hwy 401 (D)	\$ 45,000		\$ 45,000	
NEW	Wallace Line Second Feedermain from Robinson Road to Hwy 401 (C)	\$ 450,000		\$ 450,000	
NEW	Second Feedermain Hwy 401 Crossing - Wallace Line to Union Street (D)	\$ 162,500		\$ 162,500	
NEW	Second Feedermain Hwy 401 Crossing - Wallace Line to Union Street (C)	\$ 1,625,000		\$ 1,625,000	
NEW	Union Road Trunk Watermain from Hwy 401 crossing to Curry Road (D)	\$ 128,250		\$ 128,250	
NEW	Union Road Trunk Watermain from Hwy 401 crossing to Curry Road (C)	\$ 1,282,500		\$ 1,282,500	
NEW	Curry Road Trunk Watermain from Union Road to future water tower site (D)	\$ 286,920		\$ 286,920	
NEW	Curry Road Trunk Watermain from Union Road to future water tower site (C)	\$ 2,869,200		\$ 2,869,200	
NEW	Elevated Water Storage Tank (D)	\$ 340,888			\$ 340,888
NEW	Elevated Water Storage Tank (C)	\$ 3,067,991			\$ 3,067,991
TOTAL		\$ 49,667,248	\$ 15,648,000	\$ 14,951,370	\$ 19,067,878

Tillsonburg WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 1,500,000	\$ 375,000	\$ 375,000	\$ 750,000
260200 WATER TBURG	Specialized Well Rehabilitation Program	\$ 841,300	\$ 342,700	\$ 166,200	\$ 332,400
960200 TBURG	Well 7A - Filtration Upgrades (C)	\$ 1,500,000	\$ 1,500,000		
960201 TBURG	Well 3 Facility Upgrade (D)	\$ 415,000	\$ 415,000		
960201 TBURG	Well 3 Facility Upgrade (C)	\$ 2,300,000	\$ 2,300,000		
NEW	Backup Power for North Street Pumphouse	\$ 465,000	\$ 465,000		
NEW	Replacement of Well 6A	\$ 150,000	\$ 150,000		
960211 TBURG	Broadway Secondary Transmission Main Feed	\$ 1,309,000	\$ 1,309,000		
NEW	Mall Rd Replacement Wells for Wells 1a and 2	\$ 465,000		\$ 465,000	
NEW	Bell Mill Replacement Well for Well 11	\$ 642,000	\$ 642,000		
NEW	Well 12 capacity increase feasibility study	\$ 321,000			\$ 321,000
NEW	Well 4 and 5 Treatability Study	\$ 100,000	\$ 100,000		
DISTRIBUTION					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Secondary Elevated Storage	\$ 2,272,586			\$ 4,545,171
NEW	Watermain West Town Line from Simcoe Street to Pot	\$ 639,000		\$ 639,000	
960235 TBURG	Watermain Replacements	\$ 20,518,000	\$ 7,678,000	\$ 4,280,000	\$ 8,560,000
NEW	Victoria Wood Subdivision Watermain on Street I from Westin Drive to Street F	\$ 300,000	\$ 300,000		
NEW	Victoria Wood Subdivision Watermain on Grandview Drive (near Quarter Townline) West to Street A then N to Concession Street W.	\$ 675,000	\$ 675,000		
960213 TBURG	Cranberry Road Watermain Extension from Beckett Blvd North to Town Limits (C)	\$ 1,309,000	\$ 1,309,000		
NEW	North End Watermain Looping	\$ 1,711,800	\$ 1,711,800		

Tillsonburg WATER SYSTEM

DISTRIBTUION - EMPLOYMENT AREAS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
Innovation Park Industrial Lands					
NEW	Watermain looping VanNorman St watermain loop (off HWY 3)	\$ 540,000			\$ 540,000
Rokeby Sideroad Industrial Lands					
NEW	Vienna Road Watermain Extension from Rouse Street to South on Vienna Rd.	\$ 271,250		\$ 271,250	
TOTAL		\$ 40,517,521	\$ 19,272,500	\$ 6,196,450	\$ 15,048,571

City of WOODSTOCK WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 2,000,000	\$ 500,000	\$ 500,000	\$ 1,000,000
NEW	Strik Drain Stormwater Management Facility	\$ 550,000	\$ 550,000		
260100 WDSTK	Specialized Well Rehabilitation Program	\$ 2,000,000	\$ 500,000	\$ 500,000	\$ 1,000,000
960159 WDSTK	Thornton to Woodstock Feedermain Replacement (D)	\$ 1,000,000	\$ 1,000,000		
960159 WDSTK	Thornton to Woodstock Feedermain Replacement (C)	\$ 10,000,000	\$ 10,000,000		
NEW	Zone 1 Pressure Reducing Valve Control Building to Southside Supply	\$ 300,000	\$ 300,000		
NEW	Thornton to HWY 401 crossing Feedermain Upgrade (RELINING 401 CROSSING)	\$ 1,206,000	\$ 1,206,000		
NEW	Thornton WTP High Lift Pumping Upgrades	\$ 100,000		\$ 100,000	
	Well 9 and Well 6 upgrades at Southside WTP	\$ 350,000		\$ 350,000	
NEW	Southside WTP Revitalization Study	\$ 200,000		\$ 200,000	
NEW	Tower Generators	\$ 300,000		\$ 300,000	
DISTRIBUTION - VACANT LANDS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
Karn Rd Secondary Plan Area					
960154 WDSTK	Karn Rd (Zone 6) Booster Pumping Station (D)	\$ 400,000	\$ 400,000		
960154 WDSTK	Karn Rd (Zone 6) Booster Pumping Station (C)	\$ 4,000,000	\$ 4,000,000		
960134 WDSTK	Watermain from Karn Rd Booster Pumping Station west to Anderson Street, east along Karn Road and looping back to Booster Pumping Station	\$ 1,845,000	\$ 1,845,000		
NEW	Realignment of Zone 1 supply transmission main and 450 mm reservoir drain through Karn Road Subdivision	\$ 450,000	\$ 450,000		
Existing Distribution System					
960120 WDSTK	Decommissioning of 0.8 MG Bowerhill Reservoir	\$ 750,000	\$ 750,000		
NEW	Bowerhill Reservoir Expansion (Zone 1)	\$ 6,817,757			\$ 6,817,757
NEW	Zone 2 Second Feedermain Trunk from Karn Road Booster Pumping Station to new expanded Zone 2 (northwest of Athlone service area)	\$ 270,000	\$ 270,000		
960141 WDSTK	Watermain Replacements (City)	\$ 38,047,000	\$ 9,547,000	\$ 9,500,000	\$ 19,000,000
960153 WDSTK	Watermain Replacements (County)	\$ 13,240,000	\$ 3,310,000	\$ 3,310,000	\$ 6,620,000
960155 WDSTK	Zone 3 Booster Pumping Station (D)	\$ 376,026		\$ 376,026	
960155 WDSTK	Zone 3 Booster Pumping Station (C)	\$ 2,506,842		\$ 2,506,842	
960163 WDSTK	County Road 17 / 11 th Line Watermain (D)	\$ 144,000		\$ 144,000	
960163 WDSTK	County Road 17 / 11 th Line Watermain (C)	\$ 1,440,000		\$ 1,440,000	
960164 WDSTK	11th Line Watermain Replacement (D)	\$ 144,000		\$ 144,000	
960164 WDSTK	11th Line Watermain Replacement (C)	\$ 1,440,000		\$ 1,440,000	
NEW	Zone 3 Pressure Reducing Valve Control Building to northern Zone 1 area (near Nellis Booster Pumping Station)	\$ 200,000		\$ 200,000	
East Woodstock Secondary Plan Area					
NEW	Township Rd 3 Waterman from Oxford Road 4 to EPA woodlot area	\$ 1,240,000	\$ 1,240,000		

City of WOODSTOCK WATER SYSTEM

DISTRIBUTION - EMPLOYMENT LANDS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
North East Industrial Park					
960135 WDSTK	Toyota Easement Watermain from Elevated Storage tower to west side of Hwy 401 (C)	\$ 1,096,000	\$ 1,096,000		
NEW	Toyota Easement Hwy 401 Watermain Crossing (C)	\$ 1,116,000	\$ 1,116,000		
NEW	Easement Watermain from east side of Hwy 401 to west limit of Corlett site (D)	\$ 43,000	\$ 43,000		
NEW	Easement Watermain from east side of Hwy 401 to west limit of Corlett site (C)	\$ 388,000	\$ 388,000		
NEW	Street C Watermain from Corlett site to Blandford Road (D)	\$ 12,000	\$ 12,000		
NEW	Street C Watermain from Corlett site to Blandford Road (C)	\$ 112,000	\$ 112,000		
NEW	Blandford Rd Watermain from Street C to Township Road #2 (D)	\$ 23,000			\$ 23,000
NEW	Blandford Rd Watermain from Street C to Township Road #2 (C)	\$ 207,000			\$ 207,000
South East Industrial Park					
960135 WDSTK	PHASE II				
	WM 400 mm on Patullo (~ 150 m east of Alyea Street/ opposite SPS to Southwest Limit of study area) 790 meters & WM 400 mm on Patullo (Southwest Limit of study area to Middletown Line) 944 meters (D)	\$ 164,000	\$ 164,000		
	WM 400 mm on Patullo (~ 150 m east of Alyea Street/ opposite SPS to Southwest Limit of study area) 790 meters & WM 400 mm on Patullo (Southwest Limit of study area to Middletown Line) 944 meters (C)	\$ 1,475,000	\$ 1,475,000		
	Middletown Line Watermain from Patullo Avenue to Street A (D)	\$ 7,000	\$ 7,000		
	Middletown Line Watermain from Patullo Avenue to Street A (C)	\$ 65,000	\$ 65,000		
	PHASE III				
	Street A service corridor to Street B (D)	\$ 10,000			\$ 10,000
	Street A service corridor to Street B (C)	\$ 100,000			\$ 100,000
	Street A Watermain from Middletown Line to Service Corridor (D)	\$ 10,000			\$ 10,000
	Street A Watermain from Middletown Line to Service Corridor (C)	\$ 100,000			\$ 100,000
	Service corridor Watermain from Street A to Hwy 403 (D)	\$ 4,000			\$ 4,000
	Service corridor Watermain from Street A to Hwy 403 (C)	\$ 36,000			\$ 36,000
	Street B Watermain from Street A to Patullo Avenue (D)	\$ 5,000			\$ 5,000
	Street B Watermain from Street A to Patullo Avenue (C)	\$ 45,000			\$ 45,000
TOTAL		\$ 96,334,625	\$ 40,346,000	\$ 21,010,868	\$ 34,977,757

Township of NORWICH WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 300,000	\$ 75,000	\$ 75,000	\$ 150,000
260400 Water Townships	Specialized Well Rehabilitation Program	\$ 140,000	\$ 20,000	\$ 40,000	\$ 80,000
NORWICH					
NEW	New Standpipe at Main St WTF (Well 4)	\$ 2,272,586		\$ 2,272,586	
960429 Manganese Filtration Townships	New Filtration Facility at Main St WTF (D)	\$ 361,454	\$ 361,454		
960429 Manganese Filtration Townships	New Filtration Facility at Main St WTF (C)	\$ 3,253,087		\$ 3,253,087	
NEW	New Water Supply	\$ 1,571,400			\$ 1,571,400
DISTRIBUTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
960400 Townsh	Watermain Replacements (Townships)	\$ 1,953,000	\$ 1,953,000		
960402 New As	New Asset Supply/Linear Watermain Replacements (Townships)	\$ 600,000	\$ 150,000	\$ 150,000	\$ 300,000
TOTAL		\$ 10,451,527	\$ 2,559,454	\$ 5,790,673	\$ 2,101,400

Township of Blandford Blenheim WATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034-2046
NEW	Water Efficiency/Buy-Back Program	\$ 300,000	\$ 75,000.00	\$ 75,000.00	\$ 150,000.00
960429	Manganese Filtration Townships	\$ 426,159	\$ 426,159.00		
960429	Manganese Filtration Townships	\$ 2,841,059	\$ 2,841,059.00		
BRIGHT					
NEW	Bright to Plattsville Interconnecting Watermain	\$ 4,417,500			\$ 4,417,500
NEW	Bright Well 5 Abandonment Study	\$ 150,000			\$ 150,000
PLATTSVILLE					
NEW	Land Acquisition for new WTF for Manganese Treatment	\$ 400,000	\$ 400,000		
NEW	New Well Supply	\$ 1,571,400			\$ 1,571,400
NEW	Backup Generation at WTF	\$ 427,646		\$ 427,646	
DRUMBO-PRINCETON					
NEW	New Well Supply	\$ 1,167,000	\$ 1,167,000		
NEW	Provide backup generation to Wells 1 and 2A	\$ 300,000	\$ 150,000	\$ 150,000	
NEW	Water Treatment Plant Land Acquisition		\$ 400,000		
NEW	Water Treatment Plant Relocation (D)		\$ 701,283		
NEW	Water Treatment Plant Relocation (C)		\$ 4,675,217		
DISTRIBUTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034-2046
NEW	Plattsville N Boundary Trunk Watermain Extension Hoffstetter Rd North to limit	\$ 333,250	\$ 333,250		
NEW	Applewood Trunk Watermain Upsizing	\$ 82,500	\$ 82,500		
NEW	Princeton Roper Street Trunk Watermain Upsizing	\$ 232,250	\$ 232,250		
960400	Watermain Replacements (Townships)	\$ 150,000	\$ 150,000		
TOTAL		\$ 18,575,264.00	\$ 11,633,718.00	\$ 652,646.00	\$ 6,288,900.00

Township of South-West Oxford WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 300,000	\$ 75,000	\$ 75,000	\$ 150,000
260400 Water Townships	Specialized Well Rehabilitation Program	\$ 100,000	\$ 10,000	\$ 30,000	\$ 60,000
960422 TWSP	Water Quality Improvements (Brownsville)	\$ 100,000	\$ 100,000		
960429 Manganese Filtration Townships	Manganese Filtration (Brownsville)	\$ 2,565,878		\$ 2,565,878	
MOUNT ELGIN					
NEW	Graydon Facility Enhancement / Optimization	\$ 200,000	\$ 200,000		
NEW	Ingersoll to Mt Elgin Watermain Connection (D)	\$ 1,093,575			\$ 1,093,575
BEACHVILLE					
NEW	Additional Well Supply and Standpipe	\$ 1,935,014		\$ 1,935,014	
TOTAL		\$ 6,294,467	\$ 385,000	\$ 4,605,892	\$ 1,303,575

Township of East Zorra-Tavistock WATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 300,000	\$ 75,000	\$ 75,000	\$ 150,000
260400 Water Townships	Specialized Well Rehabilitation Program	\$ 100,000	\$ 10,000	\$ 30,000	\$ 60,000
960429 Manganese Filtration Townships	Manganese Filtration (Townships)	\$ 5,592,871		\$ 5,592,871	
TAVISTOCK					
NEW	Tower CT Enhancement Study	\$ 30,000	\$ 30,000		
960437-TAV	New Well Supply - Well #4 and Storage (D)	\$ 511,081	\$ 511,081		
960437-TAV	New Well Supply - Well #4 and Storage (C)	\$ 4,599,729	\$ 4,599,729		
960462-TAV	Water Tower Rehabilitation and Repainting (D)	\$ 400,000		\$ 400,000	
960462-TAV	Water Tower Rehabilitation and Repainting (C)	\$ 3,600,000		\$ 3,600,000	
DISTRIBUTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
960400 Township Distribution Replacement	Watermain Replacements (Townships)	\$ 1,895,400	\$ 1,053,000	\$ -	\$ 842,400
960402 New Asset Supply/Linear	New Asset Supply/Linear Watermain Replacements (Townships)	\$ 440,000	\$ 170,000	\$ 90,000	\$ 180,000
TOTAL		\$ 17,469,081	\$ 6,448,810	\$ 9,787,871	\$ 1,232,400

Township of ZORRA WATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Water Efficiency/Buy-Back Program	\$ 300,000	\$ 75,000	\$ 75,000	\$ 150,000
960400 Water Townships	Specialized Well Rehabilitation Program	\$ 130,000	\$ 10,000	\$ 40,000	\$ 80,000
THAMESFORD					
NEW	Reservoir and Tower CT Enhancement Study	\$ 300,000	\$ 300,000		
EMBRO					
NEW	Reservoir CT Enhancement Upgrades	\$ 300,000	\$ 300,000		
NEW	Embros - Storage Expansion	\$ 568,146		\$ 568,146	
DISTRIBUTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
960400 Township Distribution Replacement	Watermain Replacements (Townships)	\$ 3,342,000	\$ 867,000	\$ 825,000	\$ 1,650,000
NEW	Watermain Trunk Extension on Oxford Road 2 to west of Banner Road (Thamesford)	\$ 1,007,500	\$ 1,007,500		
Total		\$ 5,947,646	\$ 2,559,500	\$ 1,508,146	\$ 1,880,000

Table ES-7.2 - Detailed Wastewater Capital Implementation Plan

Town of INGERSOLL WASTEWATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Sanitary Trunk Sewer Infiltration and Inflow Reduction	\$ 17,200,000	\$ 4,300,000	\$ 4,300,000	\$ 8,600,000
NEW	WWTP Headworks Upgrades	\$ 14,000,000			\$ 14,000,000
NEW	Digester Biogas Project	\$ 450,000	\$ 450,000		
COLLECTION					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
950330 ING	Sanitary Sewer Replacements	\$ 23,639,000	\$ 5,117,000	\$ 6,174,000	\$ 12,348,000
950332 ING	Sanitary Sewer Relining	\$ 3,040,000	\$ 760,000	\$ 760,000	\$ 1,520,000
NEW	Second Sanitary Trunk Crossing of Thames River	\$ 1,372,500		\$ 150,000	\$ 1,222,500
SOUTH THAMES RESIDENTIAL AREA					
NEW	Hamilton Road Sanitary Sewer from service lands to east of Ingersoll Street and north to existing 675 mm Trunk Sewer	\$ 475,000	\$ 475,000		
NEW	Sanitary Sewer through internal lands from Hamilton Road to north of CNR (near Thomas Street/Wallace Line)	\$ 760,000	\$ 760,000		
COLLECTION - EMPLOYMENT LANDS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
WALLACE LINE INDUSTRIAL PARK					
950336 - ING SW INDUSTRIAL PARK	Wallace Line Sanitary Sewer from Robinson Road to north of CNR (D)	\$ 110,000	\$ 110,000		
950336 - ING SW INDUSTRIAL PARK	Wallace Line Sanitary Sewer from Robinson Road to north of CNR (C)	\$ 1,100,000	\$ 1,100,000		
SOUTHWEST INDUSTRIAL PARK (areas B1a,B1b,B1c,B2,C1)					
NEW	Union Road Sanitary Sewer from Culloden Line to Curry Road	\$ 527,800		\$ 527,800	
NEW	Curry Road Sanitary Sewer from Union Road to west limit of CPR	\$ 964,100		\$ 964,100	
NEW	CPR Easement Sanitary Sewer from Curry Road to West Sewage Pumping Station - south of Hwy 401	\$ 557,525		\$ 557,525	
NEW	West Sewage Pumping Station - south of Hwy 401 (area B1a)	\$ 5,625,000		\$ 5,625,000	
NEW	Easement Forcemain Hwy 401 crossing from West Sewage Pumping Station to Clarke Road area (existing system)	\$ 925,750		\$ 925,750	
NEW	Curry Road Sanitary Sewer from east limit of CPR to Plank Line	\$ 923,025		\$ 923,025	
NEW	Plank Line Sewage Pumping Station (south of Hwy 401) (in area C1)	\$ 4,500,000		\$ 4,500,000	
NEW	Easement Forcemain from Plank Line Sewage Pumping Station to West Sewage Pumping Station	\$ 895,125		\$ 895,125	
TOTAL		\$ 77,064,825	\$ 13,072,000	\$ 26,302,325	\$ 37,690,500

Tillsonburg WASTEWATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Sanitary Trunk Sewer Infiltration and Inflow Reduction	\$ 1,200,000	\$ 300,000	\$ 300,000	\$ 600,000
NEW	Tillsonburg Wastewater Treatment Plant Phase II Capacity Expansion (D)	\$ 1,387,448			\$ 1,387,448
NEW	Tillsonburg Wastewater Treatment Plant Phase II Capacity Expansion (C)	\$ 13,874,485			\$ 13,874,485
NEW	Climate change resiliency study (flooding/barricades)	\$ 150,000			\$ 150,000
NEW	Sanitary Gravity Trunk Line replacement and upsizing from Vienna Rd to Wastewater Treatment Plant	\$ 600,000	\$ 200,000	\$ 400,000	
NEW	Gravity inlet trunk sewer replacement to WWTP	\$ 127,500	\$ 127,500		
COLLECTION					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
950226 TBURG	Sanitary Sewer Replacements	\$ 14,956,000	\$ 5,690,000	\$ 1,788,000	\$ 7,478,000
NEW	Stoney Creek Trunk Sewer Rehabilitation from Quarter Town Line to Concession Street West	\$ 600,000	\$ 200,000	\$ 400,000	
NEW	John Pound forcemain replacement and upsizing	\$ 575,000	\$ 575,000		
NEW	John Pound SPS capacity enhancements (D)	\$ 118,000	\$ 118,000		
NEW	John Pound SPS capacity enhancements (C)	\$ 214,000		\$ 214,000	
950216 TBURG	Cranberry Road Sanitary Trunk extension on Tilson Ave from North of Beckett Blvd to North Town Limit	\$ 856,000		\$ 856,000	
NEW	Loraine Ave Sanitary Trunk Upsizing	\$ 577,500			\$ 577,500
COLLECTION - EMPLOYMENT LANDS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
Rokeby Sideroad Industrial Lands					
NEW	Rouse St SPS upgrades	\$ 1,500,000		\$ 1,500,000	
TOTAL		\$ 36,735,933	\$ 7,210,500	\$ 5,458,000	\$ 24,067,433

City of WOODSTOCK WASTEWATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Sanitary Trunk Sewer Infiltration and Inflow Reduction	\$ 2,000,000	\$ 500,000	\$ 500,000	\$ 1,000,000
NEW	Woodstock WWTP Operational Upgrades	\$ 12,500,000		\$ 12,500,000	
NEW	Thames Valley SPS Capacity Review (D)	\$ 200,000		\$ 200,000	
NEW	Thames Valley SPS (C)	\$ 2,052,000			\$ 2,052,000
Linear Existing Projects					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Brick Pond Sanitary Trunk Sewer Re-alignment Class EA Study			\$ 214,000	
NEW	Brick Pond Sanitary Trunk Sewer Re-alignment Class	\$ 4,066,000		\$ 4,066,000	
950173 WDSTK	Sanitary Sewer Replacement (OR 59 & Fairway) - (D)	\$ 25,000	\$ 25,000		
950173 WDSTK	Sanitary Sewer Replacement (OR 59 & Fairway) - (C)	\$ 225,000	\$ 225,000		
950174 WDSTK	Sanitary Sewer Replacements - County Projects	\$ 6,060,000	\$ 2,760,000	\$ 1,100,000	\$ 2,200,000
950158 WDSTK	Sanitary Sewer Replacements - City Projects	\$ 39,987,000	\$ 9,987,000	\$ 10,000,000	\$ 20,000,000
950162 WDSTK	11th Line Sanitary Sewer (D)	\$ 62,500		\$ 62,500	
950162 WDSTK	11th Line Sanitary Sewer (C)	\$ 625,000		\$ 625,000	
950140 WDSTK	Northwest Trunk Upsizing	\$ 250,000	\$ 250,000		
COLLECTION - VACANT LANDS					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
Karn Rd Secondary Plan Area					
960154 WDSTK	Gravity / Siphon Upsize	\$ 545,000		\$ 545,000	
East Woodstock Secondary Plan Area					
NEW	East Trunk Sewer	\$ 907,500	\$ 907,500		
NEW	Extension of East Trunk Sewer	\$ 775,000	\$ 775,000		
950163 WDSTK	Lansdowne Sewage Pumping Station (C)	\$ 3,000,000	\$ 3,000,000		
NEW	West Trunk Sewer	\$ 742,500	\$ 742,500		

City of WOODSTOCK WASTEWATER SYSTEM

Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
North East Industrial Park					
950150 WDSTK	Sewage Pumping Station A (D)	\$ 228,000	\$ 228,000		
	Sewage Pumping Station A (C)	\$ 2,000,000	\$ 2,000,000		
	Dundas Street Forcemain from Houser's Lane (MH SA 992) to Water Tower site (C)	\$ 2,100,244	\$ 2,100,244		
	Toyota Easement Forcemain from Water Tower Site to west side of Hwy 401 (C)	\$ 424,696	\$ 424,696		
	Hwy 401 Forcemain Crossing (C)	\$ 424,080	\$ 424,080		
	Street C Forcemain from east side of Hwy 401 to SPS A (Blandford Road) (D)	\$ 90,000	\$ 90,000		
	Street C Forcemain from east side of Hwy 401 to SPS A (Blandford Road) (C)	\$ 813,000	\$ 813,000		
	Blandford Road Forcemain from Street C to SPS A (D)	\$ 20,000	\$ 20,000		
	Blandford Road Forcemain from Street C to SPS A (C)	\$ 180,000	\$ 180,000		
	Southeast Sanitary Trunk Oversizing Capacity Assessment	\$ 100,000	\$ 100,000		
	Southeast Sanitary Trunk Oversizing SA752051-SA751578 west of Butler	\$ 3,342,000			\$ 3,342,000
South East Industrial Park					
950152 WDSTK	PHASE II				
	Patullo Avenue Sanitary main from Alyea SPS to southwest limit of South East Secondary Plan Area (D)	\$ 100,000	\$ 100,000		
	Patullo Avenue Sanitary main from Alyea SPS to southwest limit of South East Secondary Plan Area (C)	\$ 917,000	\$ 917,000		
	Patullo Avenue Sanitary main from South East Secondary Plan Area to Middletown Line (D)	\$ 50,000	\$ 50,000		
	Patullo Avenue Sanitary main from South East Secondary Plan Area to Middletown Line (C)	\$ 431,000	\$ 431,000		
	Middletown Line Sanitary main from Patullo Avenue to Street A (C)	\$ 169,000	\$ 169,000		
950151 WDSTK	Southeast Trunk Sanitary Condition assessment	\$ 100,000	\$ 100,000		

City of WOODSTOCK WASTEWATER SYSTEM

	Patullo Avenue South East Sanitary Trunk Oversizing from South Trunk Sewer (MH SA754367) to South Trunk Sewer (MH SA755111) (D)	\$ 189,945			\$ 189,945
	Patullo Avenue South East Sanitary Trunk Oversizing from South Trunk Sewer (MH SA754367) to South Trunk Sewer (MH SA755111) (C)	\$ 1,899,450			\$ 1,899,450
	TOTAL	\$ 87,814,915	\$ 27,319,020	\$ 29,812,500	\$ 30,683,395

Township of NORWICH WASTEWATER SYSTEM

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
	Sanitary Trunk Sewer Infiltration and Inflow Reduction	\$ 5,160,000	\$ 1,290,000	\$ 1,290,000	\$ 2,580,000
NORWICH					
950409-NOR	Norwich Lagoon Biosolids Clean-out	\$ 1,000,000		\$ 1,000,000	
950410 -NOR	Norwich Lagoon Berm Repair	\$ 100,000	\$ 100,000		
950412-NOR	Norwich Wastewater Treatment Plant Capacity Expansion - Phase II (D)	\$ 1,250,000	\$ 1,250,000		
950412-NOR	Norwich Wastewater Treatment Plant Capacity Expansion - Phase II (C)	\$ 10,500,000	\$ 10,500,000		
COLLECTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NORWICH					
950450-NOR	Sanitary Sewer Replacements	\$ 3,915,000	\$ 1,200,000	\$ 905,000	\$ 1,810,000
TOTAL		\$ 21,925,000	\$ 14,340,000	\$ 3,195,000	\$ 4,390,000

Township of Blandford Blenheim WASTEWATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
PLATTSVILLE					
950607-PLAT	Plattsville Lagoon Biosolids Clean-out	\$ 910,000	\$ 910,000		
950608-PLAT	Plattsville Lagoon Berm Repair	\$ 100,000	\$ 100,000		
NEW	Plattsville WWTP Operational Enhancement	\$ 1,000,000	\$ 1,000,000		
DRUMBO					
950810-DRUMBO	Drumbo Wastewater Treatment Capacity Expansion (Phase II) - (D)	\$ 100,000	\$ 100,000		
950810-DRUMBO	Drumbo Wastewater Treatment Capacity Expansion (Phase II) - (C)	\$ 500,000	\$ 500,000		
COLLECTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
PLATTSVILLE					
950650-PLAT	Plattsville Sanitary Sewer Replacements	\$ 2,932,800	\$ 1,497,600	\$ 478,400	\$ 956,800
NEW	Plattsville FM Twinning and SPS capacity review			\$ 125,000	
TOTAL		\$ 5,667,800	\$ 4,107,600	\$ 603,400	\$ 956,800

Township of South-West Oxford WASTEWATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
MOUNT ELGIN					
950905 MT ELGIN	Mt. Elgin Wastewater Treatment Plant Capacity Expansion Phase 3 and 4 (C)	\$ 2,679,600	\$ 2,679,600		
NEW	Sanitary Forcemain Connection to Ingersoll	\$ 10,990,000			\$ 10,990,000
COLLECTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
MOUNT ELGIN					
NEW	Sanitary Sewer Upgrades	\$ 400,000	\$ 100,000	\$ 100,000	\$ 200,000
NEW	Forcemain Upsizing	\$ 891,250	\$ 891,250		
TOTAL		\$ 14,960,850	\$ 3,670,850	\$ 100,000	\$ 11,190,000

Township of East Zorra-Tavistock WASTEWATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
NEW	Sanitary Trunk Sewer Infiltration and Inflow Reduction	\$ 8,600,000	\$ 2,150,000	\$ 2,150,000	\$ 4,300,000
TAVISTOCK					
950504-TAV	Tavistock Wastewater Treatment Plant Capacity Expansion to x m3/d (D)	\$ 5,250,000	\$ 5,250,000		
950504-TAV	Tavistock Wastewater Treatment Plant Capacity Expansion to x m3/d (C)	\$ 35,000,000	\$ 35,000,000		
NEW	Tavistock Lagoon Cell Clean Out	\$ 3,400,000			\$3,400,000
INNERKIP					
NEW	Woodstock to Innerkip Interconnecting Sanitary Forcemain Twinning	\$ 6,480,000	\$ 6,480,000		
COLLECTION - VACANT LANDS WITHIN URBAN BOUNDARY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
TAVISTOCK					
950550-TAV	Tavistock Sanitary Sewer Replacements	\$ 3,141,000	\$ 1,821,000	\$ 440,000	\$ 880,000
950513-TAV	William Street Sewage Pumping Station Capacity Expansion (D)	\$ 725,000	\$ 725,000		
950513-TAV	William Street Sewage Pumping Station Capacity Expansion (C)	\$ 6,525,000	\$ 6,525,000		
Total		\$ 69,121,000	\$ 57,951,000	\$ 2,590,000	\$ 8,580,000

Township of ZORRA WASTEWATER SYSTEMS

CAPACITY					
Project ID	Project Description	Cost	2024-2028	2029-2033	2034 - 2046
THAMESFORD					
950718 THAMES	WWTP Upgrades (C)	\$ 3,800,000	\$ 3,800,000		
EMBRO					
NEW	Woodstock to Embro Interconnecting Sanitary Forcemain - enhancements	\$ 11,625,000			\$ 11,625,000
NEW	Embro SPS - enhancements	\$ 750,000			\$ 750,000
TOTAL		\$ 16,175,000	\$ 3,800,000	\$ -	\$ 12,375,000

Municipal Council of the County of Oxford
Council Meeting - Oxford County

Date: Wednesday, July 12, 2023

Moved By: Brian Petrie

Seconded By: David Mayberry

Resolved that the recommendations contained in Report No. PW 2023-33, titled "2024 Water and Wastewater Master Plan", be received as information;
And further, that the draft report be circulated to area municipalities requesting their feedback within 75 days (September 25, 2023);
And further that the draft report be posted to Speak Up Oxford for feedback from the public for 75 days (September 25, 2023);
And further that all comments received be provided in a report for council's consideration when considering the draft report.

DISPOSITION: Motion Carried

APPENDIX 2.2.5

Report to Council 2024 Water and Wastewater
Master Plan – Extended Consultation
October 11, 2023



REPORT TO COUNTY COUNCIL

2024 Water and Wastewater Master Plan – Extended Consultation

To: Warden and Members of County Council

From: Director of Public Works

RECOMMENDATIONS

1. That County Council endorse, in principle, the draft 2024 Water and Wastewater Master Plan (W/WW MP) as the recommended servicing strategies to meet Oxford’s growth needs to 2046, as well as provide effective ongoing continuity to existing serviced settlement areas as previously detailed in Report No. PW 2023-33 entitled “2024 Water and Wastewater Master Plan”;
2. And further, that County Council direct Staff to file a Notice of Completion and commence the 30-day public review period as required under the Municipal Class Environmental Assessment (MCEA) process.

REPORT HIGHLIGHTS

- The purpose of this report is to seek County Council’s endorsement, in principle, of the draft 2024 W/WW MP which provides a strategic roadmap to service existing needs and accommodate future growth.
- Following the July 12, 2023 Council Resolution to Report No. [PW 2023-33](#), County staff was directed to commence a 75-day informal review period for Area Municipalities to further comment on the draft W/WW MP.
- All feedback received was reviewed and considered in the final draft W/WW MP, which resulted in refinements to the multi-year capital implementation plan as appropriate.

IMPLEMENTATION POINTS

Upon Council approval, staff will proceed to issue and file a Notice of Completion for the final draft 2024 W/WW MP. Printed copies of the final draft W/WW MP report will be available upon request, as well as posted to the Oxford County website and online engagement hub at *Speak Up, Oxford!*

Following a 30-day public review period and subject to comments received, the 2024 W/WW MP Class Environmental Assessment (Class EA) Study Report can be finalized and filed.

Financial Impact

There are no financial impacts to the 2023 Business Plan and Budget based on the recommendations contained within this report.

Communications

The draft W/WW MP report and appendices were previously posted to *Speak-Up, Oxford!* (<https://speakup.oxfordcounty.ca/wwwmp>) in July, 2023. In accordance with the resolution to Council Report No. PW 2023-33, dated July 12, 2023, the W/WW MP Executive Summary and a link to the full W/WW MP report on *Speak-Up, Oxford!* were forwarded to all Area Municipal Clerks on July 20, 2023 for distribution to members of their Councils for their information, as well as any appropriate staff, requesting their feedback within 75 days.

Since July 12, 2023 there has been over 920 *new* project webpage visits and 310 additional downloads of the W/WW MP document. Additional formal feedback was received from four of the eight Area Municipalities.

Members of the W/WW MP team provided Council delegations as requested at the following Area Municipalities and fielded several questions from the respective Councils:

- Town of Tillsonburg (August 14th, 2023).
- Township of East-Zorra Tavistock (September 6, 2023).

Report No. PW 2023-41 will be circulated to Area Municipalities for information.

2023-2026 STRATEGIC PLAN

Oxford County Council approved the [2023-2026 Strategic Plan](#) on September 13, 2023. The Plan outlines 39 goals across three strategic pillars that advance Council's vision of "Working together for a healthy, vibrant, and sustainable future." These pillars are: (1) *Promoting community vitality*, (2) *Enhancing environmental sustainability*, and (3) *Fostering progressive government*.

The recommendations in this report supports the following strategic goals.

Strategic Plan Pillars and Goals

		
Promoting community vitality	Enhancing environmental sustainability	Fostering progressive government
Goal 1.2 – Sustainable infrastructure and development	Goal 2.2 – Preserve and enhance our natural environment	Goal 3.2 – Collaborate with our partners and communities

See: [Oxford County 2023-2026 Strategic Plan](#)

DISCUSSION

Background

Report No. PW 2023-33, which included a draft W/WW MP executive summary and *Speak Up, Oxford!* link to the full draft report, was deliberated at Oxford County Council on July 12, 2023. Council subsequently directed County staff to circulate the Report to all Area Municipalities and to commence a 75-day informal review period for Area Municipalities to further comment on the draft W/WW MP.

Comments

Overall, the additional feedback from the Area Municipalities received since the July 12, 2023 Council meeting through the 75-day review period indicated general support for the draft W/WW MP. The water and wastewater system feedback centered around specific system servicing capacities; growth related impacts to infrastructure, infrastructure cost, project funding options, design criteria, drinking water quality and specific scope and requirements of certain projects.

A summary of formal comments received from the Area Municipality Councils are as follows:

- Township of Blandford-Blenheim submitted a Council resolution (Attachment 1) on August 2, 2023 that the 2024 W/WW MP be received as information. They affirmed their support for the proposed drinking water system interconnection between Bright and Plattsville and subsequent decommissioning of Bright Well 5. They requested the interconnection be moved ahead in the project schedule. As a result County staff have rephrased the proposed work from the 2034-2046 horizon to occur in 2032-2033.

The Township of Blandford-Blenheim provided a second Council resolution on August 2, 2023 (Attachment 1) moving that the W/WW MP consider an additional 64 acres of property be designated as development and brought back into the Bright settlement boundary. This request was forwarded to Community Planning for future consideration as the scope of the 2024 W/WW MP was limited to service planned growth in accordance with the 2020 Provincial Policy Statement and the County's approved Phase I Comprehensive Review (2020) growth forecast (Report No. [PW 2022-47](#)), which did not include such lands.

- Town of Ingersoll submitted a Council resolution (Attachment 2) on September 18, 2023 requesting that the complete data set used for determining the drinking water system and wastewater treatment design criteria in the W/WW MP be provided to the Town. The W/WW MP already describes how the Town of Ingersoll design criteria was established using actual residential and non-residential metered water demands and associated residential and non-residential populations.
- Township of South-West Oxford provided a resolution (Attachment 3) from their Council meeting held September 19, 2023 resolving that the draft W/WW MP be received as information and further that the Township support and endorse the plan as presented to meet the Township's future growth needs until 2046, which includes prioritizing future development within the Township's only current fully serviced village, Mount Elgin, unless servicing becomes critically required by another village.
- Town of Tillsonburg provided a Council Report (Attachment 4) on the draft W/WW MP on September 25, 2023 indicating that the growth forecasts used were not reflective of current/anticipated future growth rates, that project funding opportunities be further explained and that more refined project phasing be provided. During the County staff delegation to Tillsonburg Council on August 14, 2023, it was explained that adjustments to the growth forecast and more detailed project phasing would be provided through the preparation of the 2024 Development Charges Background Study. The range of project funding options was also explained during the same delegation.
- No other formal comments were received from the City of Woodstock, Township of Norwich, Township of East Zorra-Tavistock or Township of Zorra.

All above feedback was reviewed and considered in the update to the original draft 2024 W/WW MP, which resulted in refinements to project phasing within the multi-year capital implementation plan.

The complete final draft W/WW MP Report can be viewed on the W/WW MP project webpage at www.oxfordcounty.ca/wwwmp and is ready for public release.

CONCLUSIONS

Staff appreciated the additional comments received in this 75-day review period and intends to proceed with filing a Study Notice of Completion and commence with the 30-day public review period as required under the MCEA process.

County Council approval of the final draft W/WW MP is required to move forward with projects included in the 2024 budget (also shown in the 2024 W/WW MP implementation plan).

SIGNATURES

Report author:

Original signed by

Don Ford, BA, CMM III, C. Tech.
Manager of Water and Wastewater Services

Departmental approval:

Original signed by

David Simpson, P.Eng., PMP
Director of Public Works

Approved for submission:

Original signed by

Benjamin R. Addley
Chief Administrative Officer

ATTACHMENTS

- Attachment 1: Council Resolutions: Township of Blandford-Blenheim
- Attachment 2: Council Resolution: Town of Ingersoll
- Attachment 3: Council Resolution: Township of South-West Oxford
- Attachment 4: Council Report: Town of Tillsonburg

Township of Blandford-Blenheim - Council Resolution

Resolution No. 10

Date: August 2, 2023

Moved by Nancy Demerit

Seconded by P. Bomb

That the 2024 Water and Wastewater Master Plan Study from the County of Oxford be received; and,

Whereas the study includes a recommendation that the water systems in Bright and Plattsville be interconnected and that well 5 be decommissioned within the timeframe of 2034 – 2046; and,

Whereas there has been a history of issues with water supply from wells in Bright in the past and currently well 5 is the sole source of water for Bright,

Be It Resolved that comment be sent to the County of Oxford that the Council of the Township of Blandford-Blenheim requests that interconnection project between the Plattsville and Bright systems be moved ahead in the schedule to ensure there is an adequate and safe supply of water for the community of Bright

Township of Blandford-Blenheim - Council Resolution

Agenda Item 9. a. i.
Resolution No. 7

August 2, 2023

Moved by *D. Baird*

Seconded by *Nancy Demme*

Be it hereby resolved that the correspondence from Kim and Dave Piggott be forwarded to Oxford County Council; and,

That the Council of the Township of Blandford-Blenheim advise the Council of the County of Oxford that they support the request of Kim and Dave Piggott to designate 64.18 acres of their property as Development and to bring it back into the Bright settlement boundary area; and,

That Council requests that this property be taken into consideration during the 2024 Oxford County Water and Wastewater Master Plan study.



TOWN OF INGERSOLL
Town Centre

SENT VIA EMAIL

September 18, 2023

Chloe Senior, Clerk
Oxford County

Dear Ms. Senior,

Re: Oxford County Water and Wastewater Master Plan

Please be advised that at their regular meeting on September 11, 2023, Council of the Corporation of the Town of Ingersoll passed the following resolution:

Moved by Councillor Hutson; seconded by Councillor Van Kooten-Bossence

THAT the Council of the Corporation of the Town of Ingersoll receive staff report OP-017- 23 as information;

AND THAT the Town of Ingersoll Council request that Oxford County Council provide complete included data used and results thereof for the recommended Drinking Water System Design Criteria established for the Water Wastewater Master Plan;

AND THAT the Town of Ingersoll Council request that Oxford County Council provide completed included data used and results thereof for the recommended Wastewater Treatment System Design Criteria for the Water Wastewater Master Plan.

CARRIED

Please do not hesitate to contact me if you have any questions or concerns.

Regards,

A handwritten signature in black ink, appearing to read 'Danielle Richard', is written over a light blue horizontal line.

Danielle Richard
Town Clerk

cc:

Don Ford, Manager, Water and Wastewater Services, Oxford County
dford@oxfordcounty.ca



STAFF REPORT

Report No: CL 44-2023
Meeting Date: 19 Sep 2023
Department: Clerk's Department

SWOX Housing Opportunities Committee Resolution: Oxford County draft Water/Wastewater Master Plan

Recommendation:

RESOLVED that the Council of the Township of South-West Oxford receive report CL 44-2023: SWOX Housing Opportunities Committee Resolution: Oxford County draft Water/Wastewater Master Plan as information;

AND FURTHER THAT the Council of the Township of South-West Oxford support and endorse Oxford County's 2024 draft Water and Wastewater Master Plan as presented to meet the Township's future growth needs until 2046, which includes prioritizing future development within the Township's only current fully serviced village, Mount Elgin, unless servicing becomes critically required by another village.

Purpose:

The purpose of this report is to bring forward a recommendation from the SWOX Housing Opportunities Committees in relation the County of Oxford 2024 draft Water and Wastewater Master Plan.

Background:

At the County Council meeting of July 12th, 2023, County Council received report PW 2023-33 in relation to the County's draft 2024 Water and Wastewater Master Plan. This report identified water and wastewater infrastructure requirements to accommodate projected population and employment growth to 2046 in accordance with the 2020 Provincial Policy Statement and the County's approved Phase I comprehensive review (2020), while ensuring service continuity to existing serviced settlement areas. **The County intends to focus future growth and development primarily in designated community settlement areas.** At this meeting, County Council passed the following resolution:

RESOLVED that the recommendations contained in Report No. PW 2023-33, titled "2024 Water and Wastewater Master Plan", be received as information;

AND FURTHER THAT the draft report be circulated to area municipalities requesting their feedback within 75 days (September 25, 2023);

AND FURTHER THAT the draft report be posted to Speak Up Oxford for feedback from the public for 75 days (September 25, 2023);

AND FURTHER THAT all comments received be provided in a report for council's consideration when considering the draft report.

Drinking water system projects anticipated over this period of time within South-West Oxford include:

- Mount Elgin DWS – Water Treatment Plant Optimization, Ingersoll to Mount Elgin Water System Interconnection;
- Beachville DWS – New Well Supply and Water Storage;
- Brownsville DWS – Water Quality Improvements, Water Treatment Plant Filtration Addition;
- Dereham Centre DWS – Water Infrastructure Refurbishment.

Wastewater projects anticipated over this period of time within South-West Oxford include:

- Mount Elgin WWS – Wastewater Treatment Plant Capacity Expansion (Phase 3 / 4), Ingersoll to Mount Elgin Wastewater System Interconnection (Forcemain).

At the August 8th, 2023 Township of South-West Oxford Council meeting, this matter was referred to the SWOX Housing Opportunities Committee for discussion and consideration. Mayor David Mayberry advised Council that the County is not planning to service any additional villages other than those that are already serviced. It was noted that South-West Oxford is the only municipality within the County that has only one fully serviced village (Mount Elgin). Members of Council were encouraged to give consideration to future servicing needs within the Township so that comments may be provided to the County by the September 25th, 2023 deadline.

Discussion:

The SWOX Housing Opportunities Committee considered this matter at their meeting held on September 5th, 2023. The Committee reviewed the draft Water/Wastewater Master Plan, which recommends that priority be given to improving existing servicing, and not expanding servicing to other settlement areas in the County. Oxford County has requested comments from area municipalities by September 25th, 2023.

Discussion took place regarding the advantages and disadvantages of servicing another village within the Township. Currently, Mount Elgin is the only fully serviced village in South-West Oxford, and the water and wastewater system in place may be sufficient for many years to come. If needed, water and wastewater services may be expanded between Ingersoll and Mount Elgin.

The Committee questioned the need for servicing: They considered whether servicing is needed for growth and development? Does the Township want more homes or need to house more people for sustainability? Should servicing take place for environmental protection purposes? In considering one of the goals of the committee - to address affordable housing needs, it was noted that without servicing and future development, the Township will have little impact in relation to higher density development locally. The Committee discussed that in order to provide more affordable housing, higher density development is likely required. Higher density development requires servicing - this is consistent with the County's Official Plan and goals in relation to the preservation of agricultural land. Further discussion took place regarding the potential advantages and disadvantages of servicing another village within the Township. In summary, comments were noted as follows:

One Serviced Village

Advantages:

- Lessen the impact on prime agricultural land – lower quality soil in north-eastern quadrant of Mount Elgin;
- Township may focus on one village “hub” with a mix of housing, trails, parks, commercial development;
- Central location prevents potential future annexation by larger urban areas;
- Prevents and limits growth of other settlement areas – this is a priority for many residents in combination with the preservation of agricultural land.

Disadvantages:

- Cost to expand servicing (extension between Mount Elgin and Ingersoll) - projected 2034 to 2046 in excess of \$10 million;
- Residents in other communities may feel that Mount Elgin is the priority/favoured.

Multiple Serviced Villages

Advantages:

- Growth, more houses and living spaces throughout the community as a whole;
- Positive environmental impact/groundwater protection (replacement of failing septic systems);
- Cheaper to construct now versus in the future;
- Enables higher density in multiple areas throughout the community.

Disadvantages:

- More negative impact on prime agricultural land;
- Serviced rural land may expand into other urban areas (servicing may be done more efficiently by surrounding urban municipalities)
- Many existing villages to not have the capacity to grow without servicing.

Overall, in considering the potential advantages and disadvantages, the Committee expressed support for the continued growth of Mount Elgin to limit the loss of prime agricultural land to development and to continue to have influence

with respect to the need for higher density housing to address the need for affordable housing locally.

The SWOX Housing Opportunities Committee passed the following recommendation:

RESOLVED that the SWOX Housing Opportunities Committee recommend that the Council of the Township of South-West Oxford support and endorse Oxford County's 2024 draft Water and Wastewater Master Plan;

AND FURTHER THAT the SWOX Housing Opportunities Committee endorse the recommended servicing strategies outlined in the County's draft Water and Wastewater Master Plan to meet the Township's growth needs going forward to 2046, which includes focusing any future development within the Township's current serviced village (Mount Elgin), unless servicing becomes critically required by another village.

Staff is seeking Council's support of the Committee's recommendation and direction from Council in relation to the comments to be sent to Oxford County Council from the Township with respect to the 2024 draft Water and Wastewater Master Plan.

Strategic Plan:

The Township will promote quality of life by protecting and enhancing our natural environment and create a sense of well-being, belonging and active engagement in the community.

The Township will maintain quality of services by demonstrating corporate and community leadership to enhance quality of life and to strive for excellence in stewardship of all resources.

The Township will support economic development by empowering the community to live, work and thrive in a changing environment.

Financial Implications:

There are no current financial implications to the Township in relation to this matter.

Julie Middleton

Approved by Chief Administrative Officer Mary Ellen Greb

Subject: 2024 Water and Wastewater Master Plan - County of Oxford Review

Report Number: OPD 23-39

Department: Operations and Development Department

Submitted by: Jonathon Graham, Director of Operations and Development

Meeting Type: Council Meeting

Meeting Date: Monday, September 25, 2023

RECOMMENDATION

- A. THAT report titled OPD 23-39 Water and Wastewater Master Plan - County of Oxford Review (*by the Town of Tillsonburg*) be received as information; and

- B. THAT staff be directed to issue comments as identified for public record through the County of Oxford's Water and Wastewater Master Plan public commentary process for official record.

BACKGROUND

At the Town Council's regular meeting on August 14, 2023, the Director of Public Works from Oxford County, presented to Town Council a [DRAFT 2024 Water and Wastewater Master Plan](#) as prepared by R.V. Anderson Associates Limited; subsequently, Town Council passed the following resolution:

Resolution # 2023-324

Moved By: Councillor Spencer

Seconded By: Councillor Rosehart

- A. *THAT Council receives the presentation from David Simpson, regarding the 2024 Water and Wastewater Master Plan, as information; and*

- B. *THAT the Director of Development and Operations be directed to prepare a report regarding Oxford County's Water and Wastewater Masterplan and present to Council for consideration*

Carried

This report is intended to summarize the County of Oxford's Water and Wastewater Servicing Master Plan (W/WW MP). The W/WW MP will set out the long-term water and

OPD 23-39 - 2024 Water & Wastewater Master Plan - County of Oxford Review

wastewater servicing strategies to support existing needs and accommodate future growth in population through to the year 2046. The plan is intended to identify infrastructure improvements that will support the long-term growth of Oxford County.

Generally the W/WW MP consist of:

- A comprehensive background review of water and wastewater services, including water distribution, wastewater collection, treatment facilities, storage towers, etc...;
- A sensitivity analysis of current water and wastewater needs and projected changes to population, development, social and economic conditions, economy, facilities, and land use and planning initiatives;
- A summary of public feedback;
- A review of best practices; and,
- List of recommendations and proposals to guide the future water and wastewater services as weighted against population growth.

Furthermore, the W/WW MP has been undertaken consistent with Ontario Regulations as a Municipal Class Environmental Assessment. The recommended approach of the W/WW MP includes a portfolio of water distribution and wastewater collections projects and programs that aim to service future and assets lifecycle renewal demands in a methodical manner aligning with current Asset Management policie.

Of special note, standard municipal practices is to wholesomely review/update a W/WW MP on a five (5) year rotation.

DISCUSSION

The subject County W/WW MP plan provides costs for capital works and programs to support future growth into 2046. In this plan, the Town of Tillsonburg has a population projections of 23,890 by 2046 as per the following *Table 3.1: Forecasted Residential*

OPD 23-39 - 2024 Water & Wastewater Master Plan - County of Oxford Review

Population Growth:

Municipality	Estimated Annual Population Growth *						2021-2046
	2021**	2026	2031	2036	2041	2046	
Woodstock	47,965	51,825	55,815	59,825	63,595	67,295	19,330
Tillsonburg	19,120	20,020	20,980	21,980	22,960	23,890	4,770
Ingersoll	14,065	14,955	15,915	16,895	17,855	18,785	4,720
Blandford-Blenheim	7,770	8,090	8,440	8,810	9,190	9,550	1,780
East Zorra-Tavistock	8,050	8,530	9,040	9,560	10,050	10,510	2,460
Norwich	11,450	11,920	12,420	12,960	13,490	13,990	2,540
South-West Oxford	7,785	8,025	8,295	8,555	8,765	8,975	1,190
Zorra	8,860	9,110	9,370	9,650	9,950	10,240	1,380
Oxford County	125,065	132,475	140,275	148,235	155,855	163,235	38,170

* Values may not add precisely due to rounding. Where a Township contains more than one fully serviced settlement area, assumptions regarding the allocation of the Township's total forecasted growth to each settlement will also be used to inform the study findings for each system.

** 2021 Census Population with preliminary correction for undercount of approximately 3%

WATER DISTRIBUTION SYSTEM IMPROVEMENTS TO EXISTING SYSTEM NEW FACILITIES AND WATERMAINS:

The capital project/improvements strategy includes a series of new watermains to provide appropriate pressures storage and specific well rehabilitation. It recommends improvements to existing pumping infrastructure and replacement of storage elements at the end of their service life. Of note, Town Council may wish to review and consider *Appendix ES-1 – Water Projects Identified*, pages ES-19 in this regard. These identified capital project/improvements will be subject to further studies such as but not limited to, Detailed Engineering Design, Environmental Assessments including more consultation with the public when required, etc...

WASTEWATER COLLECTION SYSTEM IMPROVEMENTS TO EXISTING SYSTEM – NEW TRUNK SEWERS AND STRATEGIC FLOW DIVERSIONS:

The capital project/improvements strategy includes a series of new sewers as proposed to alleviate existing capacity issues including the identified Phase 2 improvements for the Town's Pollution Control Plant. Of note, Town Council may wish to review and consider *Appendix ES-2 – Wastewater Projects Identified*, pages ES-41 in this regard. The study also included a review of inflow and infiltration, or I&I, practices and programs. Again, these identified capital project/improvements will be subject to further studies and processes.

OPD 23-39 - 2024 Water & Wastewater Master Plan - County of Oxford Review

PUBLIC/TOWN COMMENTS AND CONCERNS

Through the review of the County of Oxford's Water and Wastewater Servicing Master Plan, Town Staff is seeking Council's direction to add the following comments to the Public Record:

1. Population trend and sensitivity analysis:
 - In light of recently received and/or approved Draft Plans (both at the County and Town level) staff estimates that there could be a total of 2,173 to 2,920 additional residential units constructed (+/-).
 - Hereafter, if we carry a fair estimate of 2.4 people per unit, Tillsonburg estimated increased population could be considered between 5,200-7,000
 - ✓ Although there are many influencing factors towards the development and construction of these new proposed unit, this analysis suggest that Tillsonburg is in a state of accelerated growth.
 - This is especially critical in consideration to the deflated population value as compared to Tillsonburg's 2021 Census Population vs. actual population.
 - ✓ Therefore, in the cross examination of *Table 3.1: Forecasted Residential Population Growth*, Tillsonburg could/would out pace the current forecasted; it is strongly advised that this impact should be addressed and incorporated into the appendix projects identified.
2. Upsizing and contribution through current developments:
 - Although the report identifies regional and servicing upsizing the correlation of Development Charges towards "development/developer(s) upsizing" could be explained and/or refined to consider alternative funding arrangements.
3. The appendixes included provide a conceptual roadmap of identified infrastructure needs; however, a refined schedule/roadmap should be considered to ensure timely and appropriate lead times are incorporated to complete official processes especially in the periods of 2024-2033 (i.e. Environmental Approvals, Detail Design, Tendering, etc.)

CONSULTATION

Oxford County's Director of Public Works, County Water/Wastewater Staff, Manager of Engineering, Manager of Public Works, external stakeholders (i.e. developers and consultants)

OPD 23-39 - 2024 Water & Wastewater Master Plan - County of Oxford Review

FINANCIAL IMPACT/FUNDING SOURCE

Localized to the Town of Tillsonburg's cost associated to meet the populations demand are estimated at a combined total of \$74.9 million until 2046. Where divided into respective services areas; water is estimated at \$38.2 million and wastewater at \$36.7 million. To reaffirm, the funds identified above are subject to the water/wastewater user rates, development charges and financing managed at the County of Oxford upper tier level.

Furthermore, future capital project/improvements will be incorporated into the County's multi-year budget and as per current Town practices, in ensuring a collaborative cost sharing philosophy (in striving for value added), the Town leads and complements services improvements/capital project subject to our local multi-year budget practices.

Generally, future (and current) capital project/improvements will be prioritized based on fiscal and human constraints, and in alignment with all stakeholder's organizational priorities, which means the actual budgeting may extend beyond 2046 and/or priorities may shift. The majority of the projects recommended in the W/WW MP include a growth related component and are included in the ongoing Development Charges Background Study to be funded by future development charges (DCs) and will be considered in future.

Any shortfall in DC funding for growth projects and non-growth portion of capital projects as well as operating costs would be rate funded through the Water and Wastewater user rates (i.e. impacts of Bill 23's scheduled/milestone rate increase). The rate model is currently being reviewed and once complete, will be used to forecast the long-term rate impact of the W/WW MP and provided to County Council; Town staff will also be requesting a delegation in similar fashion to be presented to Town Council in this regard.

CORPORATE GOALS

How does this report support the corporate goals identified in the Community Strategic Plan?

- Lifestyle and amenities
- Customer service, communication and engagement
- Business attraction, retention and expansion
- Community growth
- Connectivity and transportation
- Not Applicable

OPD 23-39 - 2024 Water & Wastewater Master Plan - County of Oxford Review

Does this report relate to a specific strategic direction or project identified in the Community Strategic Plan? Please indicate section number and/or any priority projects identified in the plan.

Goal – The Town of Tillsonburg will strive for excellence and accountability in government, providing effective and efficient services, information, and opportunities to shape municipal initiatives.

Strategic Direction – Explore opportunities for service efficiencies in partnership with adjacent municipalities.

Priority Project – *Short Term* - Municipal service review

ATTACHMENTS

Appendix A – DRAFT 2024 Water and Wastewater Master Plan - County of Oxford

APPENDIX 2.2.6
Notice of Completion



John Tyrrell

From: Samya Chams
Sent: November 30, 2023 12:31 PM
To: eanotification.swregion@ontario.ca; MEA.Notices.EAAB@ontario.ca; mike.harris@pc.ola.org; Smith, Mark (MECP; Stephen.Dunn@ontario.ca; angela.stroyberg@ontario.ca; Jim.W.Miller@ontario.ca; Mark.Badali1@ontario.ca; rob.wrigley@ontario.ca
Cc: Mackenzie Schultz; dford@oxfordcounty.ca; John Tyrrell
Subject: Oxford Water and Wastewater Master Plan - Updated Notice of Master Plan
Attachments: NOTICE WWWMP Notice of Completion 20231115.pdf
Categories: Filed by Newforma

Good afternoon,

On behalf of Oxford County, please find attached the updated Notice of Master Plan for the Oxford County Water and Wastewater Master Plan.

Thank you,

Samya



Samya Chams, B.A (she/her)

ADMINISTRATIVE ASSISTANT/ PROJECT SUPPORT COORDINATOR

t 519 681 9916 ext. 5021

a 557 Southdale Road East, Suite 200, London, ON N6E 1A2



rvanderson.com



Notice of Master Plan

Oxford County Water and Wastewater Master Plan

Oxford County has completed the 2024 Water and Wastewater Master Plan (W/WW MP) Class Environmental Assessment (EA) Study. The W/WW MP has identified the preferred water and wastewater servicing solutions to meet Oxford's growth needs to 2046 as well as provide effective ongoing continuity to existing serviced settlements.

Environmental Assessment process

The Class EA Study was undertaken in accordance with the master planning and design process of the Municipal Class Environmental Assessment (MCEA, 2023), approved under the Ontario *Environmental Assessment Act*. The 2024 W/WW MP followed Approach 1 of the MCEA process, which fulfills the requirements for Exempt (Schedule A and A+) projects and provides a basis for future investigations for Schedule B and C projects (where additional project specific investigations may be required to satisfy additional MCEA requirements before implementation). A W/WW MP report document has been prepared that details the planning and decision-making process followed during the Class EA Study.

Public comment period

By this notice, the W/WW MP report is being placed online on the public record for a **30-day review period starting November 1 and ending November 30, 2023**. The W/WW MP is available for review at www.oxfordcounty.ca/wwwmp.

Written comments will be accepted until **November 30, 2023**. All comments and concerns should be sent directly to either one of the following contacts:

Don Ford, CMM III, C. Tech.
Manager, Water and Wastewater
Oxford County
dford@oxfordcounty.ca | 1-800-755-0394, ext. 3191

John Tyrrell, MSc (Eng.), P.Eng
Senior Project Manager
R.V. Anderson Associates Limited
jtyrrell@rvanderson.com | 519-681-9916, ext. 5308

The Minister of the Environment, Conservation and Parks can only issue an order with respect to Schedule B or C projects identified in the Master Plan requiring a higher level of study, or that conditions be imposed, only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights.

Requests on other grounds will not be considered. The Minister cannot make an order with respect to Exempt projects identified in the Master Plan.

Requests must include your contact information and be received by November 30, 2023. Requests should specify what kind of order is being requested (request for conditions or a request for an individual/comprehensive environmental assessment); how an order may prevent, mitigate or remedy potential adverse impacts on Aboriginal and treaty rights; and any information in support of the statements in the request. This will ensure that the Ministry is able to efficiently begin reviewing the request.

The request should be sent in writing or by email to:

Minister, Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, ON M7A 2J3
Minister.mecp@ontario.ca

AND

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto, ON M4V 1P5
EABDirector@ontario.ca

Requests should also be copied to Oxford County through the project contacts.

For more information on requests for orders under Section 16 of the *Environmental Assessment Act* visit: <https://www.ontario.ca/page/class-environmental-assessments-section-16-order>

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Issued November 1, 2023
Re-issued November 15, 2023

APPENDIX 2.3
Indigenous Consultation



APPENDIX 2.3.1

Letters, Response Survey and Correspondence



March 14, 2021

Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia, ON N7T 7H5

**RE: Oxford County Water and Wastewater Master Plan
Municipal Class Environmental Assessment Study – Master Plan
Notice of Study Commencement**

Dear Chief Chris Plain,

Oxford County (the County) has retained R.V. Anderson and Associates (RVA) to undertake the development of a Water and Wastewater Master Plan (Master Plan). The Master Plan will provide the County with long-term water and wastewater servicing strategies to accommodate future projected population and employment growth to the year 2046 as well as provide effective on-going servicing continuity for existing settlement areas across Oxford County, as appropriate.

The Master Plan will be prepared as per Master Plan Approach #1 per the Municipal Engineers Association (MEA) *Municipal Class Environmental Assessment* document (October 2000, amended 2007, 2011 & 2015), which is approved under the Ontario *Environmental Assessment Act*. The intent of the Master Plan consultation will be to provide County staff with sufficient understanding of the comments and concerns provided by agencies, Indigenous communities, and interested members of the public to properly undertake future planned projects.

The key outcomes of the Master Plan will:

- Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046;
- Develop water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County's Official Plan and strategic initiatives;
- Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure; and
- Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability.

Consultation for this Class EA Study will comply with the mandatory guidelines developed by the MEA for First Nations and Aboriginal Peoples consultation as detailed in its *Municipal Class Environment Assessment* (EA) document. The County also recognizes and follows the Ministry of Environment, Conservation and Parks (MECP) guidance protocol (Code of Practice for Consultation in Ontario's Environmental Assessment Process) for Aboriginal consultation under the *Ontario Environmental Assessment Act*.

Accordingly, the County willingly accepts its responsibility to conduct *interest-based consultation* with Indigenous Communities as part of the Environmental Assessment process. The County is committed to the open flow of information and to ensuring that there are meaningful opportunities for Aamjiwnaang First Nation to provide input during this Class EA Study. As our neighbours in our community, we wish to build a strong and open relationship with your Nation.

In order to initiate engagement with this Study, we are notifying you of the project (see enclosed Notice of Commencement) in hopes that you can assist our project team in determining if your community may hold an interest in this project. For your convenience, we have enclosed a "Project Response Form" for you to review, complete and submit to the County's project manager as a first consultation step. Specifically, we are seeking your input on:

- Any preliminary comments or concerns that your community has on the proposed project;
- The level of interest in the project from the community for further engagement; and
- The best methods to communicate with your community.

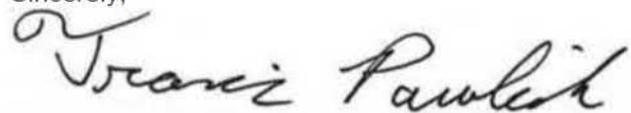
Your comments are welcome and will be taken into consideration throughout this Class EA Study. Our project team would be pleased to meet with you at any time during the Study to answer your questions or respond to any concerns you may have.

Should potential adverse impacts of the project undertakings on asserted or established Aboriginal or treaty rights be anticipated or determined to exist, the Crown has a legal *rights-based duty to consult* Indigenous Communities. Where the Crown's rights-based duty to consult process may be triggered, the MECP Environmental Approvals Branch will assess the extent of any Crown duty to consult in such circumstances. In such cases, additional procedural aspects of the consultation process may be delegated from the MECP Environmental Approvals Branch to Oxford County (the Study proponent).

For project updates please visit Speak Up Oxford at <https://speakup.oxfordcounty.ca/wwwmp>

Thank you in advance for your participation. Should you have any questions or require additional information, please contact the undersigned by phone 519-539-9800, ext. 3111, or email tpawlick@oxfordcounty.ca.

Sincerely,



Travis Pawlick, P.Eng.
Supervisor of Water and Wastewater Technical Services

Encl. Project Response Form and Notice of Study Commencement

cc: John Tyrrell, M.Sc (Eng.), P.Eng., Project Manager, R.V. Anderson Associates Limited
Mark Badali, Environmental Resource Planner & EA Coordinator, MECP

Project Response Form
Notice of Study Commencement
2024 Oxford Water and Wastewater Master Plan
Class Environmental Assessment Study

Name: _____
 (Please Print)

Phone No: _____

Signed: _____

Date: _____

If there is a different contact for your organization that we should follow-up with, please let us know:	
Name:	
Address:	
Phone:	
Email:	

The study is in its initial stages and information can be provided as it progresses.

Please assist us in identifying your interests:		YES	NO
1.	Do you wish to participate in this project?		
2.	If the answer to Question 1 is "no", would you like to be removed from the contact list?		

Please assist us in identifying your interests:		YES	NO
3.	Are there areas of cultural significance to your community in close proximity to the study area that Oxford staff should be aware of? (if yes, please provide details below)		
4.	Is the project within an area subject to a land claim?		
5.	Would your community / organization like to meet with Oxford staff to discuss this study?		

Is there any additional information your community requires from the Oxford County in order to better understand the study and to identify if / how the project may adversely impact Aboriginal and / or Treat rights of your community?

Please identify any initial comments your community or organization may have at this time.

PUBLIC WORKS
21 Reeve Street, PO Box 1614
Woodstock, ON N4S 7Y3
519.539.9800 | 1.800.755.0394
oxfordcounty.ca



Please identify any initial comments your community or organization may have at this time.

Please return this completed to either:

Oxford County
Travis Pawlick, P. Eng.
Supervisor, Water and Wastewater
Tel: 1.800.755.0394x3111
E-mail: tpawlick@oxfordcounty.ca

R.V. Anderson Associates Limited
John Tyrrell, M.Sc. (Eng.), P.Eng.
Senior Project Manager
Tel: 519.681.9916x5038
E-mail: jtyrrell@rvanderson.com

Notice of Study Commencement

Oxford County Water and Wastewater Master Plan

Oxford County has initiated the development of a Water and Wastewater Master Plan (W/WW MP) to provide the County with strategic long-term water and wastewater servicing strategies to support existing servicing needs and accommodate further projected population and employment growth to the year 2046.

What is the Water and Wastewater Master Plan?

The W/WW MP is a long-term strategic planning document that lays out the County's vision and goals for its water and wastewater systems to 2046. The W/WW MP will:

- Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046;
- Develop water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County's Official Plan and strategic initiatives;
- Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure;
- Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability.

R.V. Anderson Associates Limited has been retained by Oxford County to complete the W/WW MP.

The W/WW MP is being conducted in accordance with the Master Plan requirements of Phases 1 and 2 of the *Municipal Class Environmental Assessment* (2000, as amended in 2007, 2011 & 2015), approved under the *Ontario Environmental Assessment Act*.

We want to hear from you

As the Project Team reviews and updates the W/WW MP, it is important to engage with the public to identify the community's servicing needs and priorities. Members of the public are invited and encouraged to comment on the project at any time during the Study.

Those interested in this study are invited to participate by:

- Visiting the study website at www.speakup.oxfordcounty.ca/wwwmp
- Subscribing to the study mailing list to receive notices of future consultation opportunities. To be added to the mailing list, contact one of the key contacts below.
- Attending future Public Consultation Centres (PCC). PCCs will be held at various locations around the County. More details about the PCCs will be provided as they become available
- Providing your comments through the study website on *Speak Up, Oxford!* at www.speakup.oxfordcounty.ca/wwwmp, or submit to the key study contacts listed below.

A draft W/WW MP Study Report will be prepared and made available for public review and comment prior to its finalization.

Contacts for information

Travis Pawlick, P.Eng.
Supervisor, Water and Wastewater
Oxford County
519-539-9800 x3111 | tpawlick@oxfordcounty.ca

John Tyrrell, MSc (Eng.), P.Eng.
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038 | jtyrrell@rvanderson.com

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Posted March 14, 2022

Samya Chams

From: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>
Sent: March 30, 2022 10:03 AM
To: Tisha Doucette; Dawn Russell
Cc: Samya Chams; John Tyrrell; tpawlick@oxfordcounty.ca; mschultz@oxfordcounty.ca
Subject: RE: Oxford County Water and Wastewater Master Plan - Notice of Study Commencement

[CAUTION EXTERNAL EMAIL] Make Sure that it is legitimate **before** Replying or Clicking on any links

Good Morning Tisha,

I have cc'd Dawn Russell, Dawn coordinates meetings for the team and she will be happy to assist.

Have a great day!!

Kind Regards,

Tanya j. Hill-Montour B.A Hons.
Six Nations of the Grand River - Archaeology Supervisor.
c.226.388.0665
e. tanyahill-montour@sixnations.ca

From: Tisha Doucette [mailto:TDoucette@rvanderson.com]
Sent: March 29, 2022 4:35 PM
To: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>
Cc: Samya Chams <schams@rvanderson.com>; John Tyrrell <JTyrrell@rvanderson.com>; tpawlick@oxfordcounty.ca; mschultz@oxfordcounty.ca
Subject: RE: Oxford County Water and Wastewater Master Plan - Notice of Study Commencement

Hi Tanya,

We're also looking forward to a relationship building meeting. We will plan to schedule one sometime in the month of June.

Kind regards,
Tisha



Tisha Doucette, B.Sc., EP, ENV SP (she/her)
ASSOCIATE, SENIOR PLANNING ECOLOGIST

t 519 681 9916 ext. 5035 | m 519-868-1658

a 557 Southdale Road East, Suite 200, London, ON N6E 1A2

From: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>
Sent: March 24, 2022 10:11 AM
To: John Tyrrell <JTyrrell@rvanderson.com>
Cc: Tisha Doucette <TDoucette@rvanderson.com>; Samya Chams <schams@rvanderson.com>; Mackenzie Schultz <mschultz@oxfordcounty.ca>; Travis Pawlick <tpawlick@oxfordcounty.ca>
Subject: RE: Oxford County Water and Wastewater Master Plan - Notice of Study Commencement

[CAUTION EXTERNAL EMAIL] Make Sure that it is legitimate **before** Replying or Clicking on any links

Thank you John,

Much appreciated! Also, looking forward to at some point having a relationship building meeting.

Kind Regards,

Tanya j. Hill-Montour B.A Hons.
Six Nations of the Grand River - Archaeology Supervisor.
c.226.388.0665
e. tanyahill-montour@sixnations.ca

From: John Tyrrell [<mailto:JTyrrell@rvanderson.com>]
Sent: March 18, 2022 2:24 PM
To: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>
Cc: Tisha Doucette <TDoucette@rvanderson.com>; Samya Chams <schams@rvanderson.com>; Mackenzie Schultz <mschultz@oxfordcounty.ca>; Travis Pawlick <tpawlick@oxfordcounty.ca>
Subject: RE: Oxford County Water and Wastewater Master Plan - Notice of Study Commencement

Hi Tanya,

Tisha is on vacation today, so I am responding on her behalf.

We are in the early stages of the development of the Water and Wastewater Master Plan, so there is nothing further to share currently. We will be scheduling a Public Consultation Centre (PCC) in the next few months; at which time we will have some additional information that we can provide.

Please keep in mind that a Master Plan is a broad level assessment that will require more detailed investigations at the project-specific level including an assessment of the potential location and footprint of proposed infrastructure. The Master Plan will become the basis for, and be used in support of, future investigations for specific Schedule B and C projects that are identified within the Master Plan. This would also be the time that archaeological assessments or a management plan would take place.

For some additional background, in August 2016, Oxford County released a draft Oxford Natural Heritage System Study (ONHSS). The 2016 ONHSS is still relevant in terms of a County-wide natural heritage assessment; however, the County does intend to update the document in 2022. The County has not completed any County-wide Phase 1 Archeological Assessments or Cultural Heritage Desktop Reports; however, area specific reports have been part of recent Secondary Planning reviews (i.e., various Woodstock expansions, Tavistock and Innerkip Secondary Plan, upcoming Ingersoll Secondary Plan, etc.).

I hope that this provides you with the information that you require at this time.

Take care,



John Tyrrell, M.Sc.(Eng.), P.Eng.
SENIOR PROJECT MANAGER/REGIONAL MANAGER

t 519 681 9916 ext. 5038 | m 519-878-7903

a 557 Southdale Road East, Suite 200, London, ON N6E 1A2



rvanderson.com

From: Tanya Hill-Montour <tanyahill-montour@sixnations.ca>

Sent: March 15, 2022 6:06 AM

To: Tisha Doucette <TDoucette@rvanderson.com>

Cc: rlinn@sixnations.ca; tpawlick@oxfordcounty.ca; John Tyrrell <JTyrrell@rvanderson.com>; Samya Chams <schams@rvanderson.com>; Mark.Badali1@ontario.ca

Subject: Re: Oxford County Water and Wastewater Master Plan - Notice of Study Commencement

[CAUTION EXTERNAL EMAIL] Make Sure that it is legitimate **before** Replying or Clicking on any links

Good Morning Tisha,

Hope you been keeping well!

I have an interest in building a relationship with our community. I do have a question, is there a Archaeological Management Plan that you can share? Or a plan in development?

Looking forward in conversations, have a lovely day!

Kind Regards,

Tanya j. Hill-Montour B.A Hons.

Six Nations of the Grand River - Archaeology Supervisor.

c.226.388.0665

e. tanyahill-montour@sixnations.ca

On Mar 14, 2022, at 3:51 PM, Tisha Doucette <TDoucette@rvanderson.com> wrote:

Good afternoon Robbin,

Oxford County has initiated the process of developing a Water and Wastewater Master Plan (W/WW MP). The W/WW MP will provide the County with strategic long-term water and wastewater servicing strategies that support existing needs and accommodate further growth in population and employment through to the year 2046.

Oxford County values the participation of all stakeholders and Indigenous communities and wishes to ensure that your community's interests and concerns are taken into consideration and addressed in a timely manner. If you would like further information on the project, or have any questions or comments please contact either one of the project managers identified in the attached Notice and/or complete the attached Project Response Form.

Kind regards,
Tisha

Tisha Doucette, B.Sc., EP, ENV SP (she/her)
ASSOCIATE, SENIOR PLANNING ECOLOGIST

t 519 681 9916 ext. 5035 | m 519-868-1658

a 557 Southdale Road East, Suite 200, London, ON N6E 1A2

APPENDIX 2.3.2

Relationship Building Meeting





Growing stronger together

Water and Wastewater Master Plan

June 2nd, 2022
Time: 2:00 p.m.



R.V. Anderson Associates Limited
engineering • environment • infrastructure



Purpose of Meeting - Agenda

- Introduce you to the 2024 Water and Wastewater Master Plan (W/WW MP)
- Provide an overview of the study process
- Identify the issues and reason for this study
- Summarize the current state of the County's water and wastewater system



We want to hear from you!

- Do you have any observations that you would like to share?
- Do you have any questions regarding the study?
- Do you have any questions regarding the Master Plan process?

Oxford County

Name	Title/Role
Travis Pawlick	Supervisor, Water and Wastewater Technical Services
Don Ford	Manager, Water and Wastewater Services
Jennifer Lavallee	Manager, Capital Planning
Paul Michiels	Manager, Policy Planning
Reuben Davis	Supervisor, Engineering Services
Ryan Vink	Project Engineer
Melissa Abercrombie	Manager, Engineering Services
Mackenzie Schultz Jennifer White	Coordinator, Water & Wastewater Programs
David Simpson	Director, Public Works

**R.V.
Anderson
Associates
Limited**

Name	Title/Role
John Tyrrell	Associate, Regional Manager, Senior Project Manager
Tisha Doucette	Associate, Planning Ecologist
Darika Sharma	Project Designer
Samya Chams	Administrative Assistant/ Project Support Coordinator

Problem/Opportunity Statement

To identify preferred water and wastewater servicing strategies to meet Oxford's growth needs to 2046 as well as provide effective on-going continuity to existing serviced settlement areas across Oxford County as appropriate.

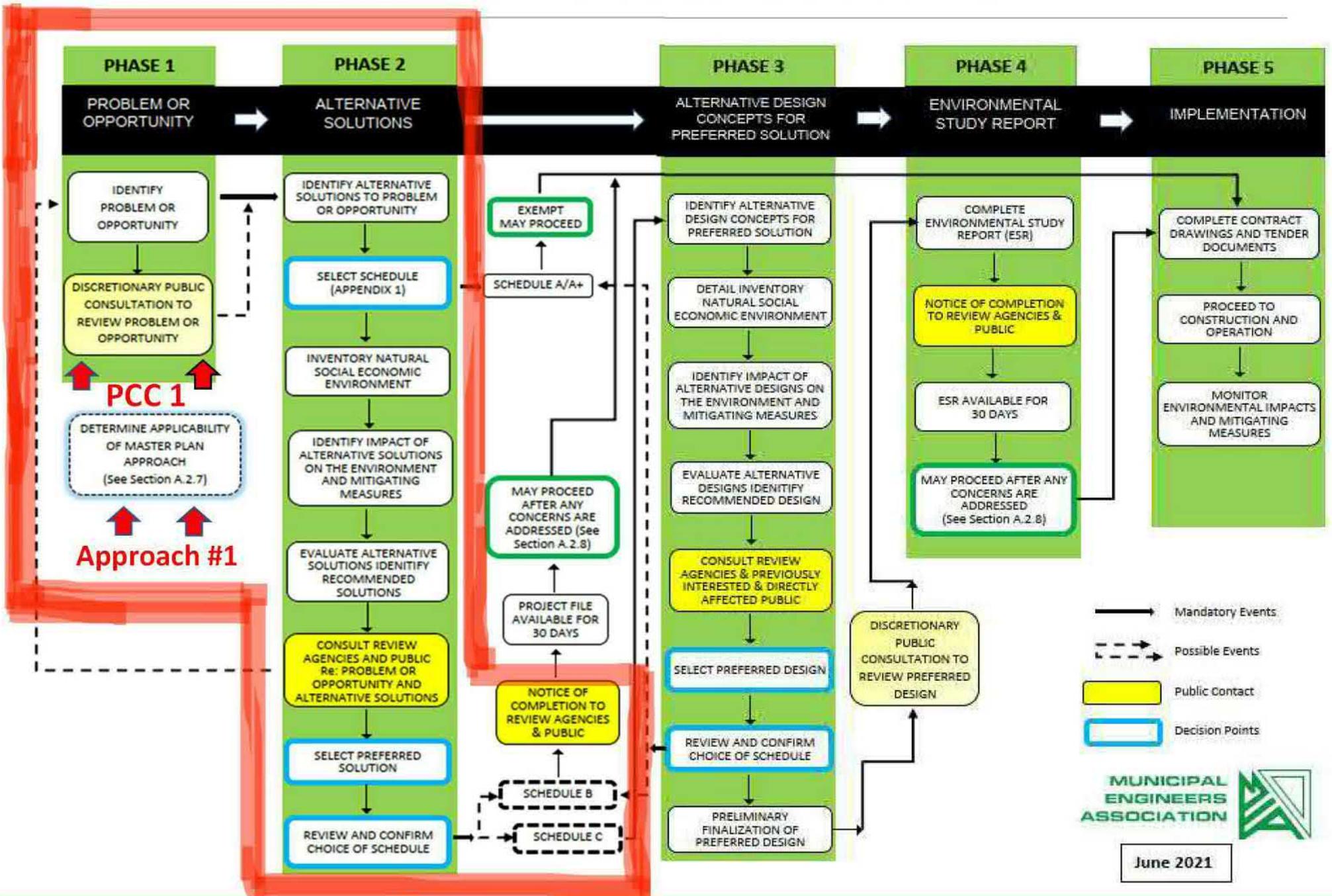


Study Area & Background

Located in the heart of southwestern Ontario, Oxford County has a population of approximately 122,000 residents. Oxford is “growing stronger together” through demonstrated partnerships with residents, businesses, and the eight area municipalities, comprising Blandford-Blenheim, East Zorra-Tavistock, Ingersoll, Norwich, South-West Oxford, Tillsonburg, Woodstock, and Zorra.

Oxford County is one of Ontario’s foremost farming communities, and its location at the crossroads of Highways 401 and 403 has contributed to the development of a significant commercial and industrial sector growth.

Class EA/ Master Plan Process



Goals of Oxford's W/WW MP

1. Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046;
2. Ensure water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County's Official Plan and strategic initiatives;
3. Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure; and,
4. Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability.

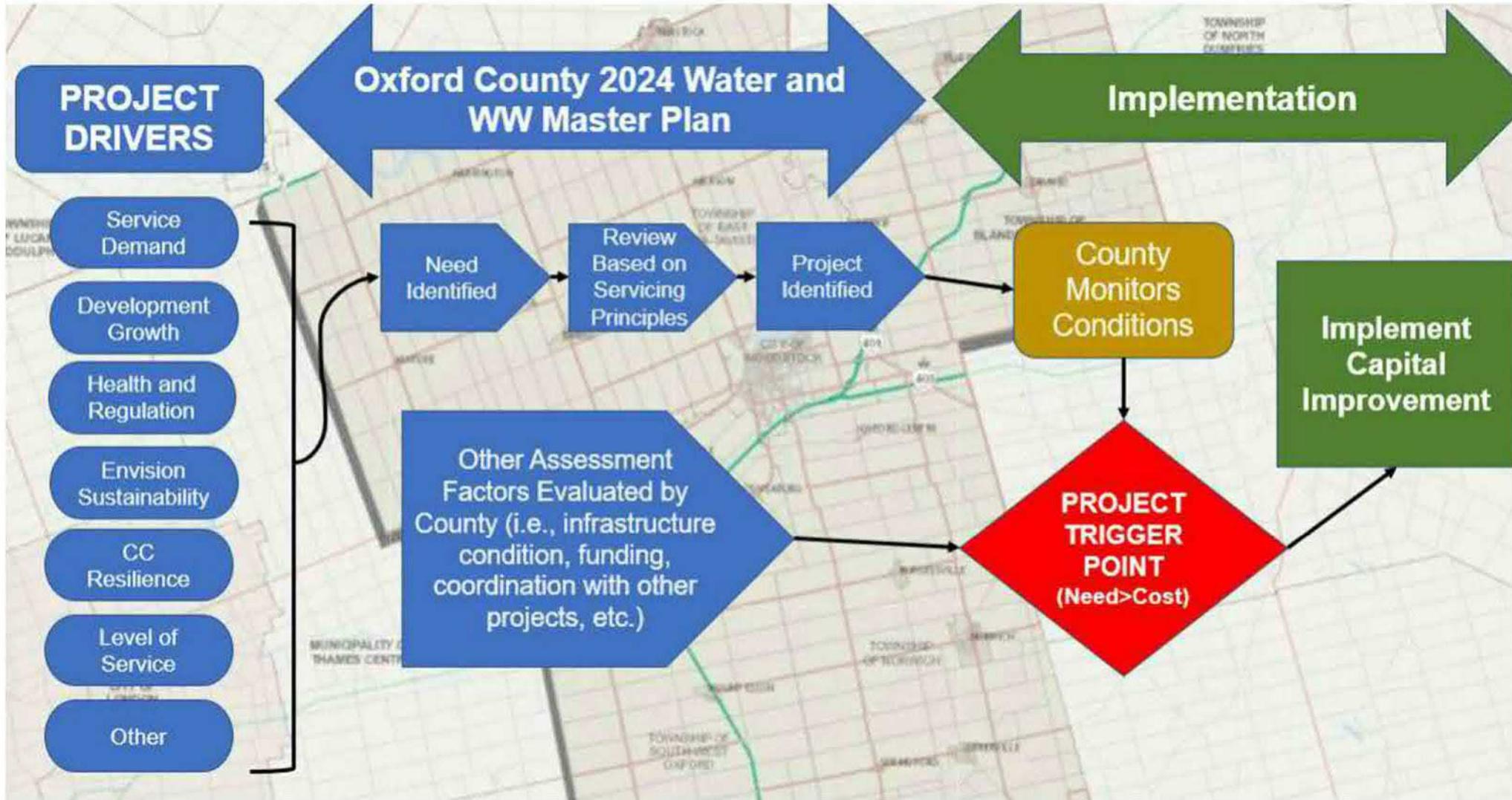
Master Planning Principles

- Integrate growth management planning and infrastructure servicing in a manner which ensures alignment with County's Official Plan and Strategic Initiatives
- Offer infrastructure solutions that recognize potential for growth beyond current planning horizons
- Develop infrastructure systems which meet the County's established asset level of service framework and MECP legislative requirements
- Maximize the use of available existing capacity in infrastructure, while considering sustainable infrastructure expansions

Master Planning Principles

- Provide reliability, redundancy, and security in the infrastructure systems, including consideration of reserve capacity
- Optimize pumping and storage infrastructure to maintain level of service under emergency conditions
- Recommend proven, reliable, financially, and sustainable technologies that meet long-term servicing requirements
- Recognize water conservation and efficiency measures to support environmental sustainability
- Consider infrastructure operating and maintenance costs, including full lifecycle costing, to evaluate overall long-term financial implications and sustainability

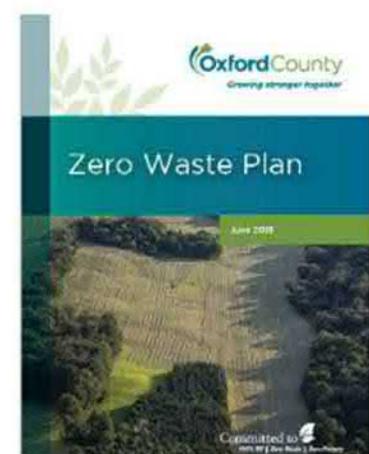
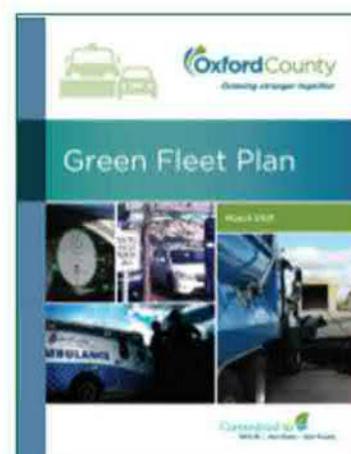
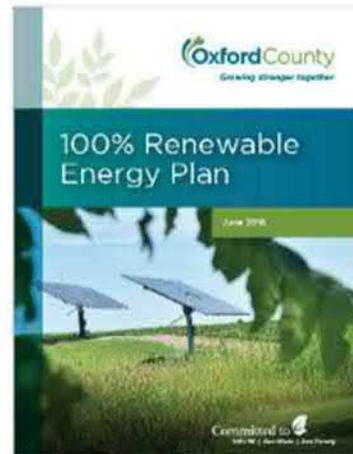
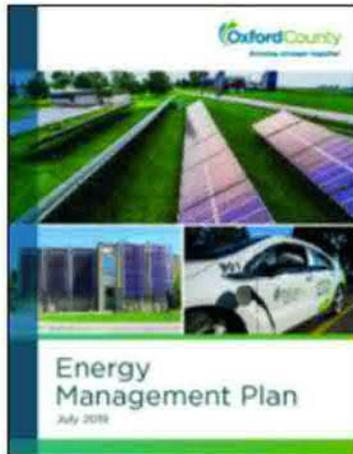
Municipal Class Environmental Assessment



CLIMATE CHANGE & SUSTAINABILITY

Oxford County is committed to building a sustainable future; including commitments to zero waste, 100% renewable energy and low carbon transportation.

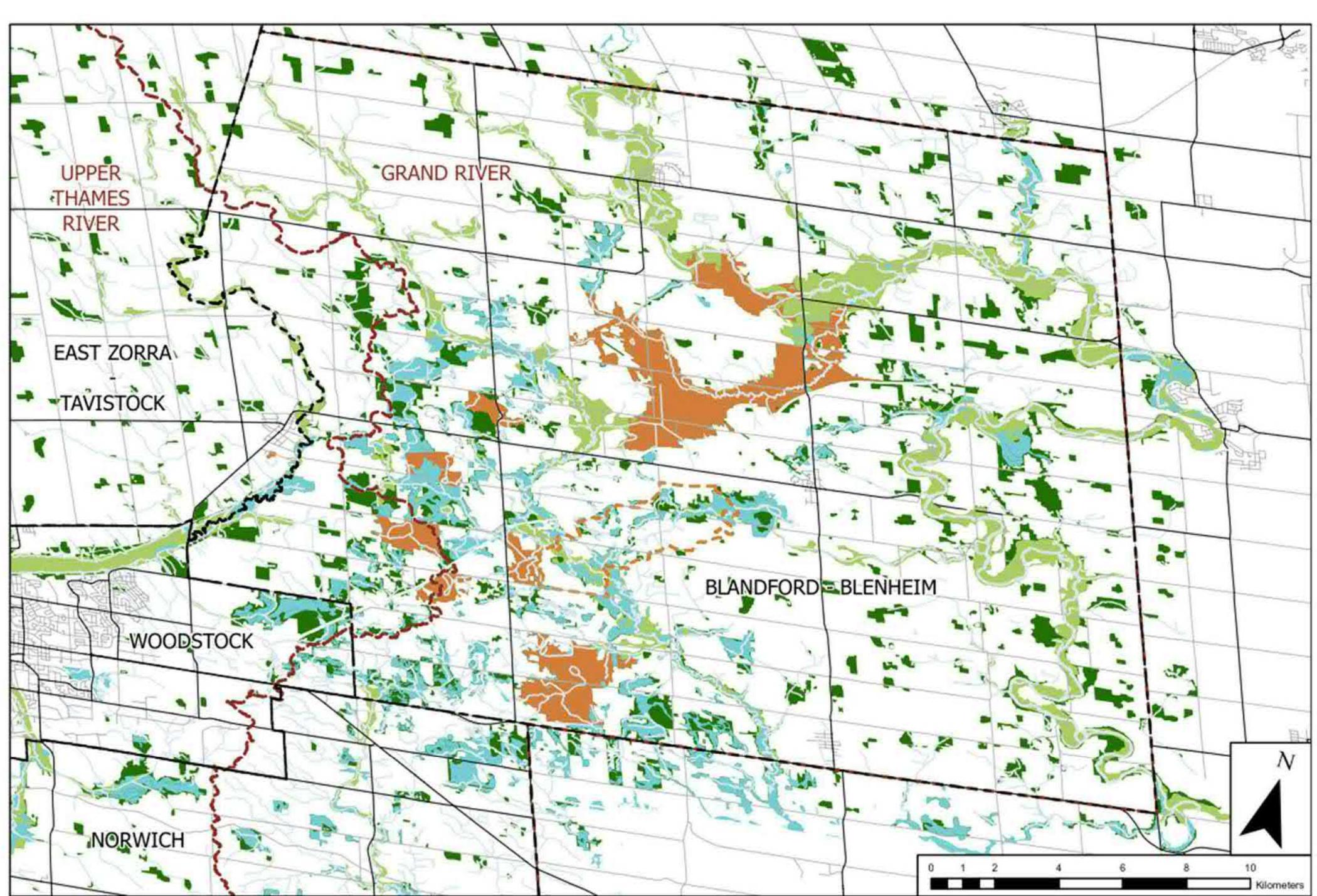
These commitments will be integrated into the Water and Wastewater Master Plan.



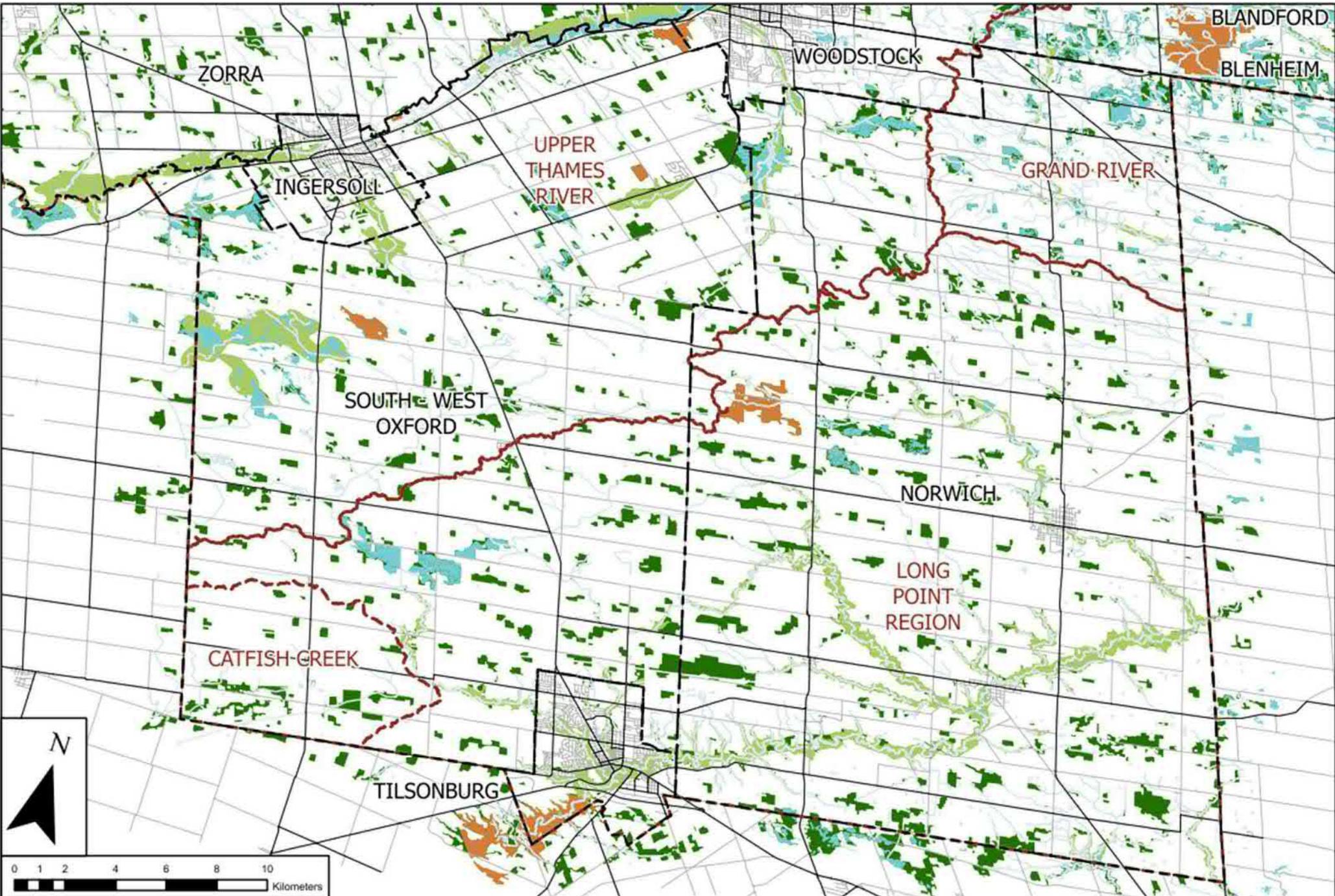
NATURAL ENVIRONMENT

Oxford County has a natural heritage system made up of important ecological features including woodlands, wetlands, valleylands, meadows and watercourses.

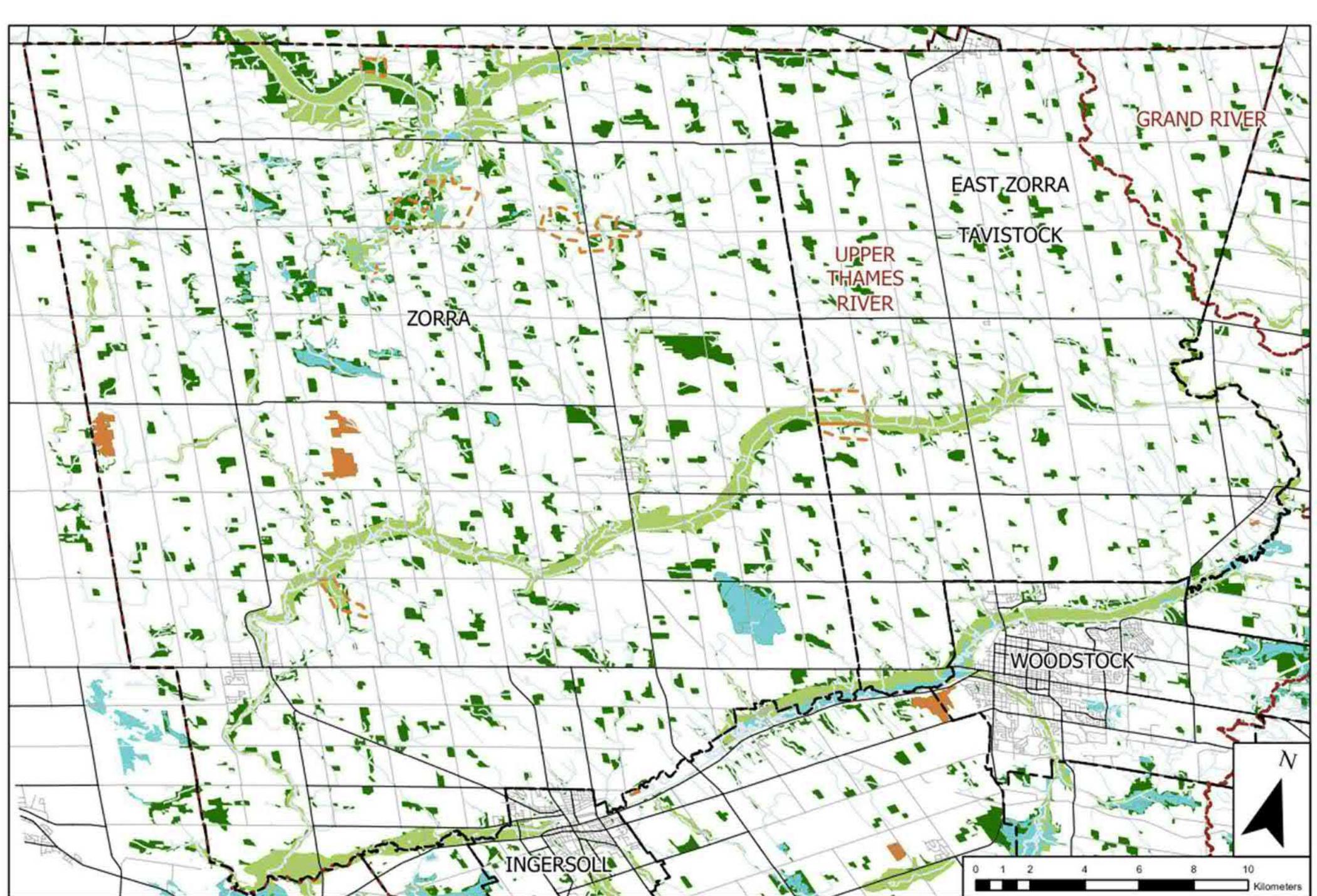
A desktop review of potential environmental constraints and opportunities will be completed once potential servicing areas have been identified.



- Major Roads
- Other Roads
- Watercourse
- ▭ Municipal Boundary
- ▭ Watershed Boundaries
- Significant Valleylands
- Provincially Significant Wetlands
- ▭ Earth Science Areas of Natural and Scientific Interest
- Life Science Areas of Natural and Scientific Interest
- Significant Woodlands



- Major Roads
- Other Roads
- Watercourse
- ▭ Municipal Boundary
- ▭ Watershed Boundaries
- ▭ Significant Valleylands
- ▭ Provincially Significant Wetlands
- ▭ Earth Science Areas of Natural and Scientific Interest
- ▭ Life Science Areas of Natural and Scientific Interest
- ▭ Significant Woodlands



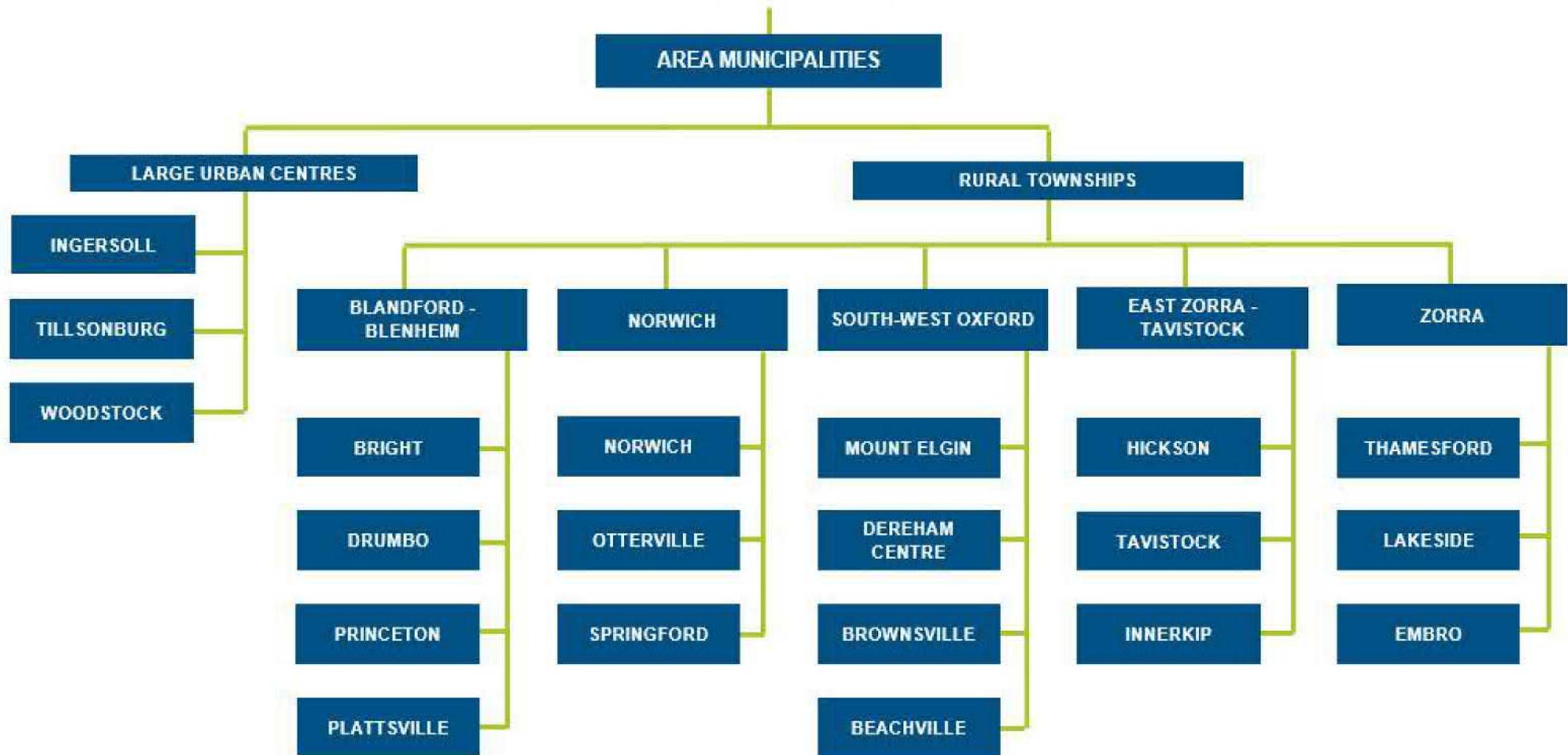
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|---------------|------------------------|-------------------------------------|--|---|-------------------------|
| — Major Roads | ⬜ Municipal Boundary | ■ Significant Valleylands | ⬜ Earth Science Areas of Natural and Scientific Interest | ■ Life Science Areas of Natural and Scientific Interest | ■ Significant Woodlands |
| — Other Roads | ⬜ Watershed Boundaries | ■ Provincially Significant Wetlands | | | |
| — Watercourse | | | | | |

Water and Wastewater Systems

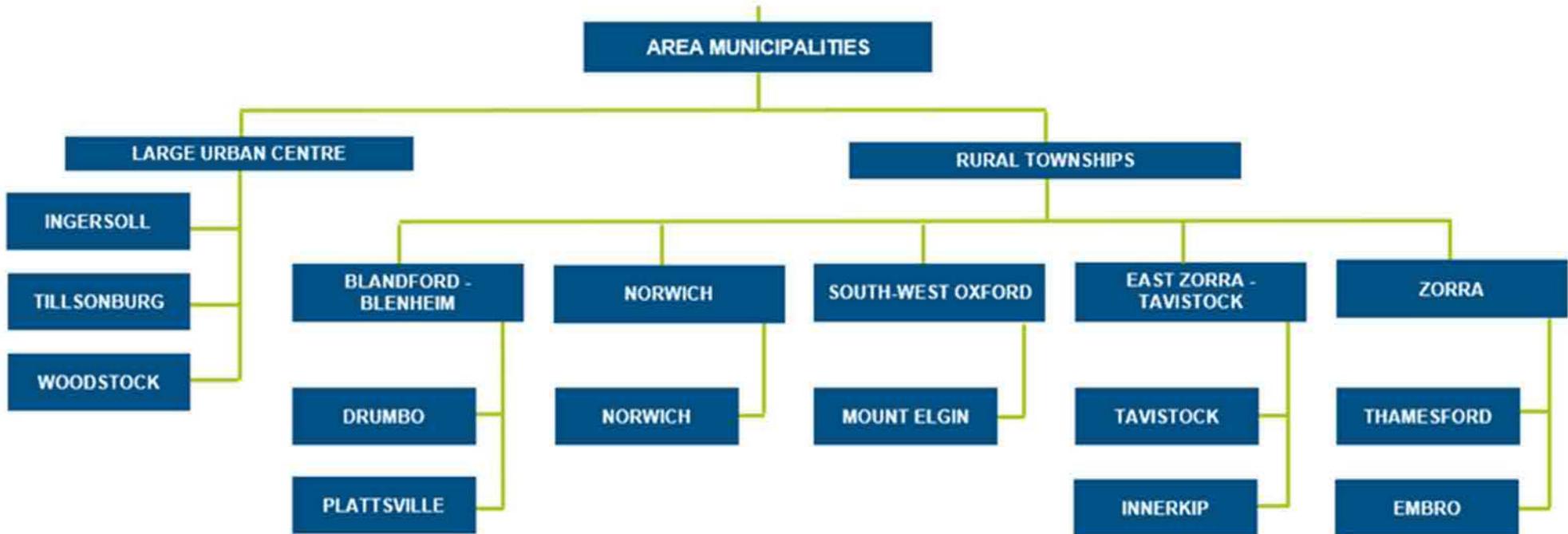
The County owns and operates:

- 17 municipal drinking water systems
- 11 municipal wastewater systems
- Over 735 km of distribution watermains/ 600 km of sewers & forcemains
- 34 water treatment facilities
- 42 water reservoirs/storage towers
- 7 water booster pumping stations
- 61 active groundwater wells
- 36 sewage pumping stations
- 9 wastewater treatment plants and a biosolids management facility
- SCADA systems to control operations

OXFORD COUNTY – AREA MUNICIPALITIES SERVICED BY WATER TREATMENT SYSTEMS



OXFORD COUNTY – AREA MUNICIPALITIES SERVICED BY WASTEWATER TREATMENT SYSTEMS



Questions or
comments?



THANK YOU FOR ATTENDING!

- Please feel free to submit your comments via email, phone a member of the study team or visit the study website on *Speak Up, Oxford!*

<https://speakup.oxfordcounty.ca/wwwmp>



Travis Pawlick, P.Eng.

Supervisor, Water and Wastewater
Technical Services

Oxford County

519-539-9800 x3111

tpawlick@oxfordcounty.ca



John Tyrrell, MSc, P.Eng.

Senior Project Manager

R.V. Anderson Associates Limited

519-681-9916 x 5038

jttyrrell@rvanderson.com

APPENDIX 2.4
Public Consultation



APPENDIX 2.4.1

PCC 1 Presentation and Note to File





Welcome
Virtual Public Consultation Centre #1
2024 Water and Wastewater Master Plan

Thursday, September 29th, 2022
5:00 p.m. – 7:00 p.m.



R.V. Anderson Associates Limited
engineering • environment • infrastructure



Virtual Meeting Format



Presentation by the Project Team



Question and Answer Period “Raise Your Hand” or Dial “9”



Presentation, Transcript, and Question and Answer Summary will be available at www.oxfordcounty.ca/wwwmp after the meeting



To assist our ongoing development of this Master Plan, please provide any comments by October 19, 2022

Purpose of Meeting - Agenda

- Introduce you to the study
- Provide an overview of the study process
- Identify the issues and reason for this study
- Summarize the County's water and wastewater system
- Present information on what we have found to date



We want to hear from you!

- Do you have any observations that you would like to share?
- Do you have any questions regarding the study?
- Do you have any questions regarding the Master Plan process?



Study Area & Background

- Located in the heart of southwestern Ontario, Oxford County has a population of approximately 120,781 residents (2021 Statistics Canada census)
- Oxford County comprises of eight area municipalities: Blandford-Blenheim, East Zorra-Tavistock, Ingersoll, Norwich, South-West Oxford, Tillsonburg, Woodstock, and Zorra
- Ingersoll, Tillsonburg and Woodstock are designated as 'Large Urban Centers' as the majority of employment and residential growth is concentrated here
- The remaining five municipalities are termed 'Townships', and consists of non serviced, and partially and fully serviced villages

Oxford County Official Plan

Provides fundamentals based on a 20-year horizon projection for:

- County-wide development strategy
- Resource management policies
- Land use policies
- Implementation strategies

The plan concentrates growth and development in communities containing a mix of residential and non-residential land use and the following hierarchy of servicing options:

1. Servicing extended from existing centralized water and wastewater treatment facilities
2. Individual septic systems and private wells
3. The extension of communal wastewater or water supply facilities beyond the designated limits of serviced communities is prohibited

Drinking Water Treatment and Supply Systems

The County owns and operates:

- 17 municipal drinking water systems
- 34 water treatment facilities
- 735 km of distribution watermains
- 39 water reservoirs/storage towers
- 7 water booster pumping stations
- 61 active groundwater wells
- SCADA systems to control operations



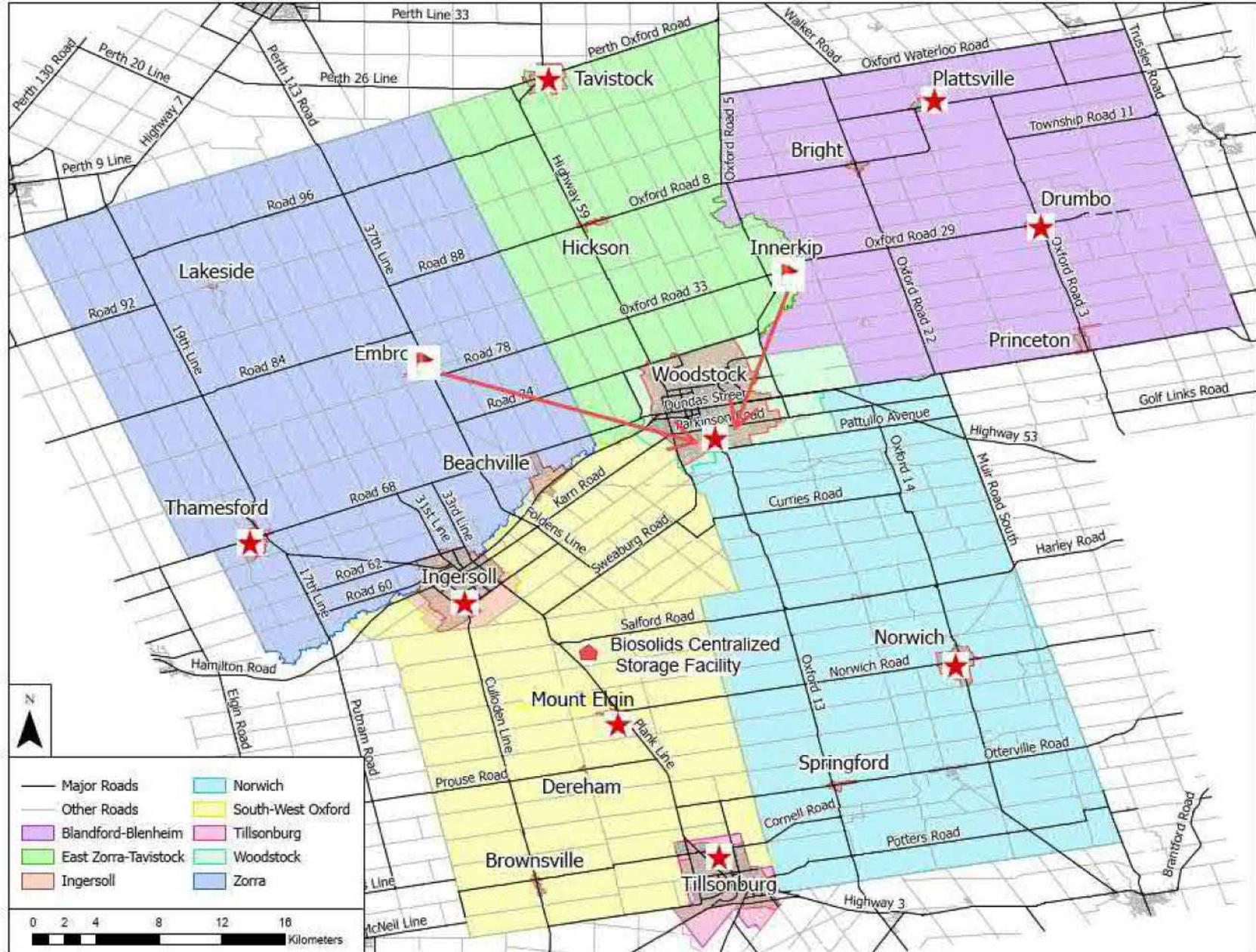
Wastewater Treatment and Collection Systems

The County owns and operates:

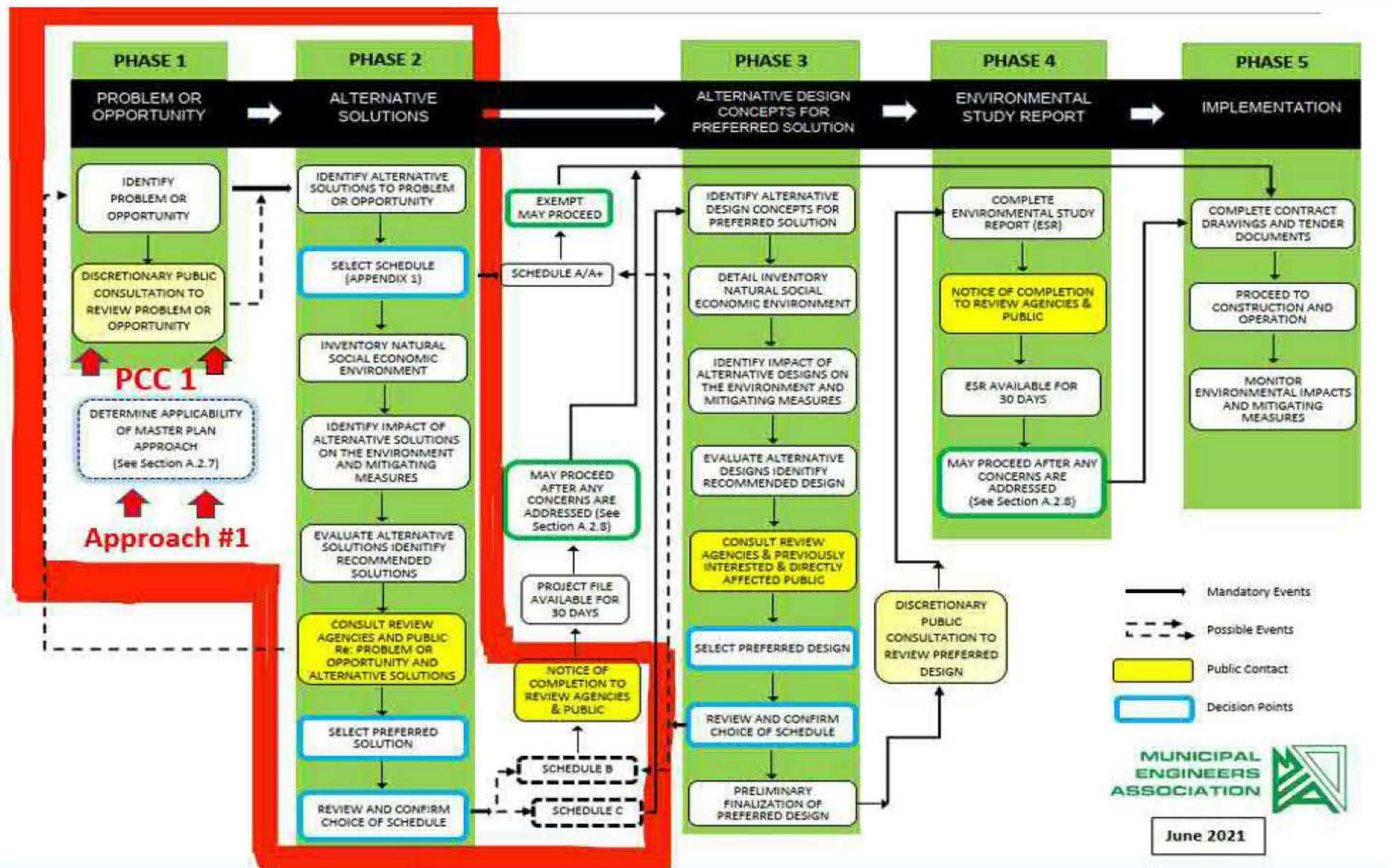
- 11 municipal sewage collection systems
 - Pumped sewage to other plants – Embro, Innerkip have odour control facilities
- 600 km of sewers & forcemains
- 36 sewage pumping stations
- 9 wastewater treatment plants
 - Activated Sludge WWTPs - Ingersoll, Tillsonburg, Woodstock
 - Extended Aeration WWTP- Thamesford
 - Lagoon – Norwich, Plattsville, Tavistock
 - Recirculating Sand Filter – Mount Elgin
 - Sequencing Batch Reactor (being converted to a Membrane Bio-reactor) - Drumbo
- One biosolids management facility
- SCADA systems to control operations



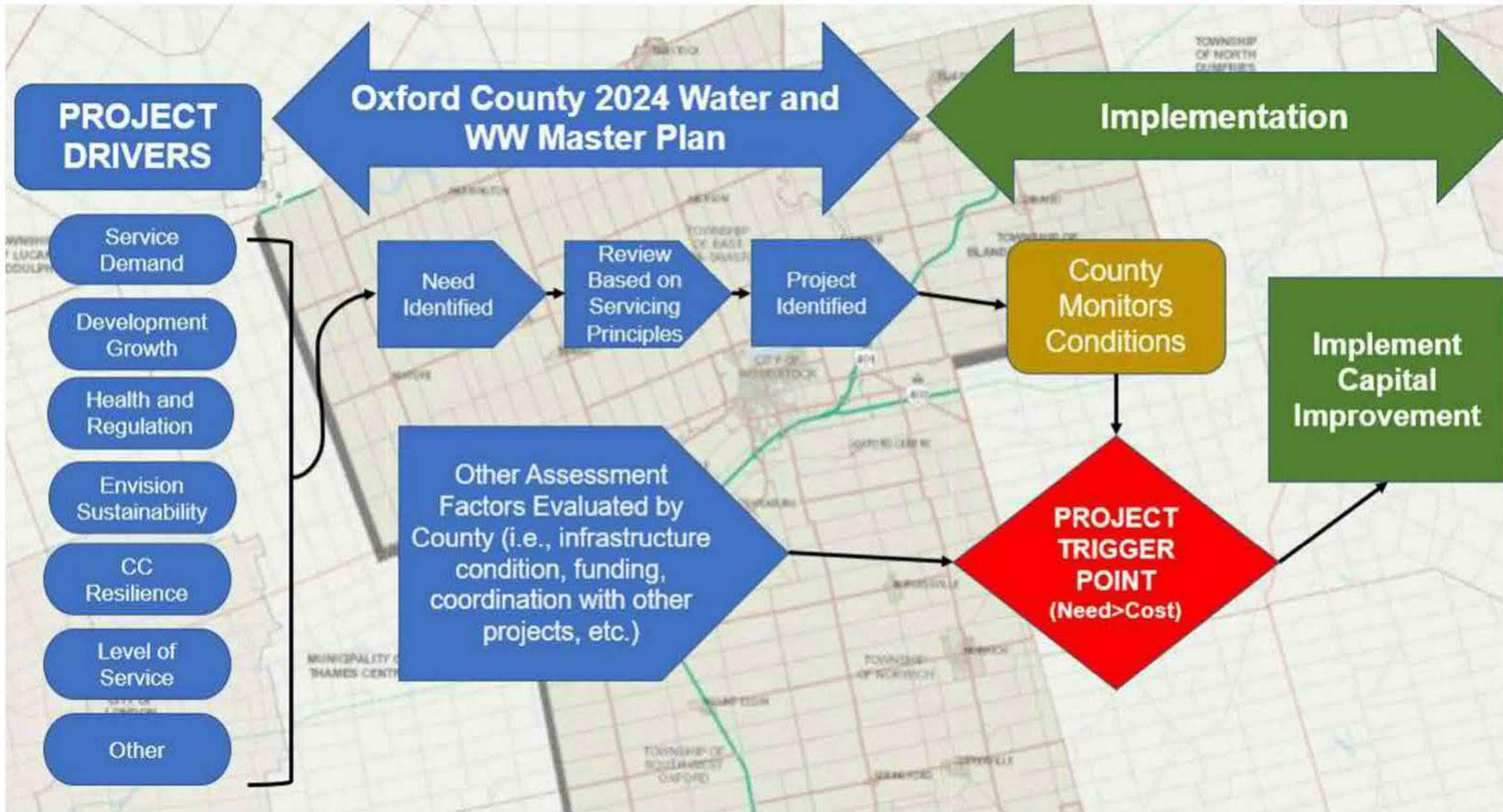
Oxford County Wastewater Treatment Systems



Class EA/ Master Plan Process



Municipal Class Environmental Assessment



Any comments
or questions?



Problem/Opportunity Statement

To comprehensively develop, evaluate and select preferred long-term water and wastewater serving strategies to support existing servicing needs and accommodate future projected population and employment growth to the year 2046



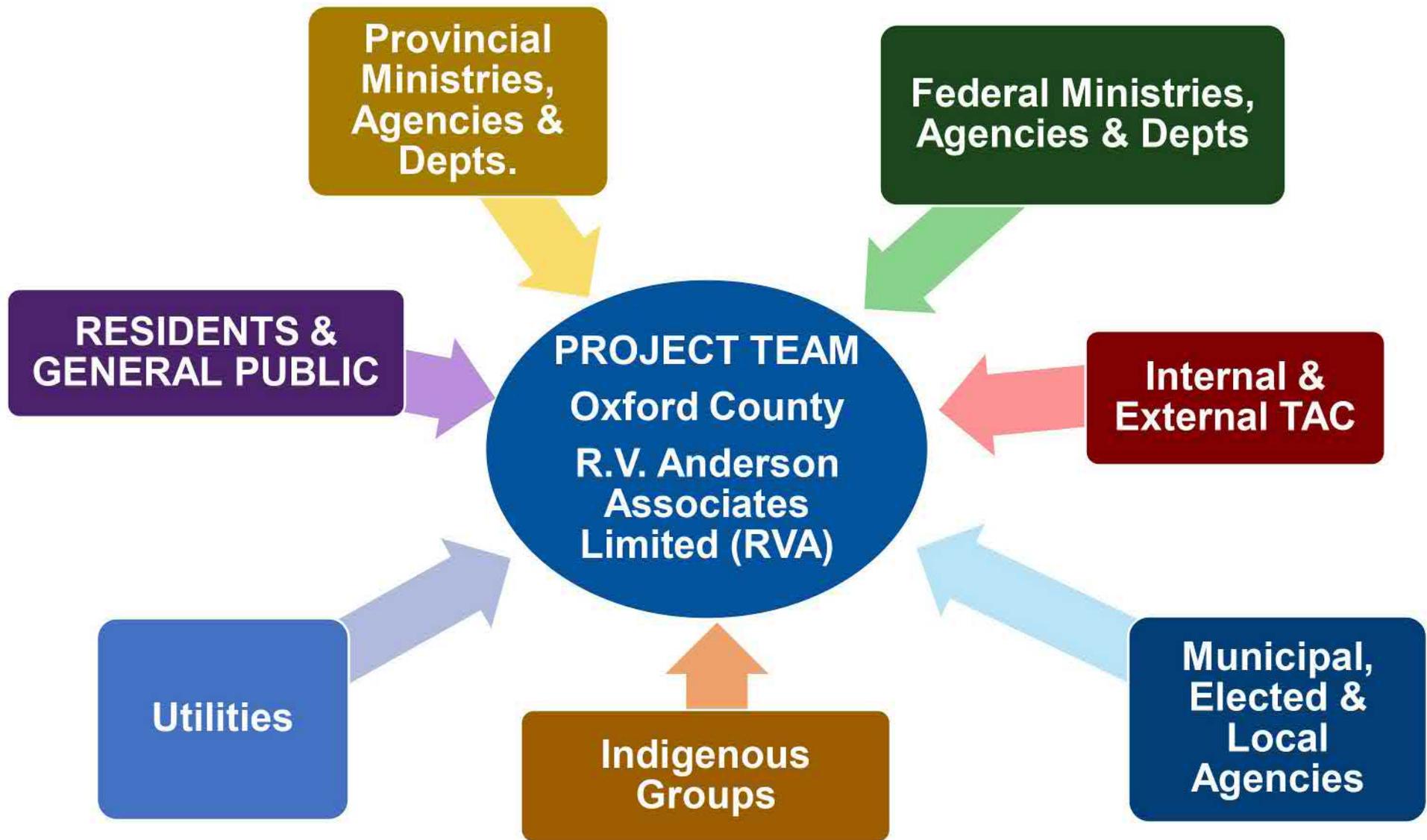
Master Planning Goals

- Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046
- Integrate growth management planning and infrastructure servicing in a manner which ensures alignment with County's Official Plan and Strategic Initiatives
- Offer infrastructure solutions that recognize potential for growth beyond current planning horizons
- Develop infrastructure systems which meet the County's established asset level of service framework and MECP legislative requirements
- Optimize the current infrastructure to realize all capacity available, while considering sustainable infrastructure expansions
- Multi-year Capital Implementation Plan detailed in three horizon time periods - 2024-2028, 2029-2033, and 2034-2046

Master Planning Goals

- Provide reliability, redundancy and security in the infrastructure systems, including consideration of reserve capacity
- Optimize pumping and storage infrastructure to maintain level of service under emergency conditions
- Recommend proven, reliable, financially and sustainable technologies that meet long-term servicing requirements
- Recognize water conservation and efficiency measures to support environmental sustainability
- Consider infrastructure operating and maintenance costs, including lifecycle costing, to evaluate overall long-term financial implications and sustainability

Input into Master Plan



Natural Environment

- Land use within the Study Area is dominated by Agricultural Reserve, with interspersed Settlement, Open Space, and Environmental Protection Areas
- Schedule C-1 of the Oxford County Official Plan shows Environmental Features including locally and provincially significant features in the County
- Land use within Oxford County is further sub-categorized by individual Schedules for each Township and Urban Centre
- Oxford County contains portions of four conservation area watersheds including:
 - Upper Thames River (north and west)
 - Grand River (north and east)
 - Long Point Region (south)
 - Catfish Creek (extreme southwest) watersheds
 - These watersheds are further subdivided into 15 Subwatersheds

Natural Environment

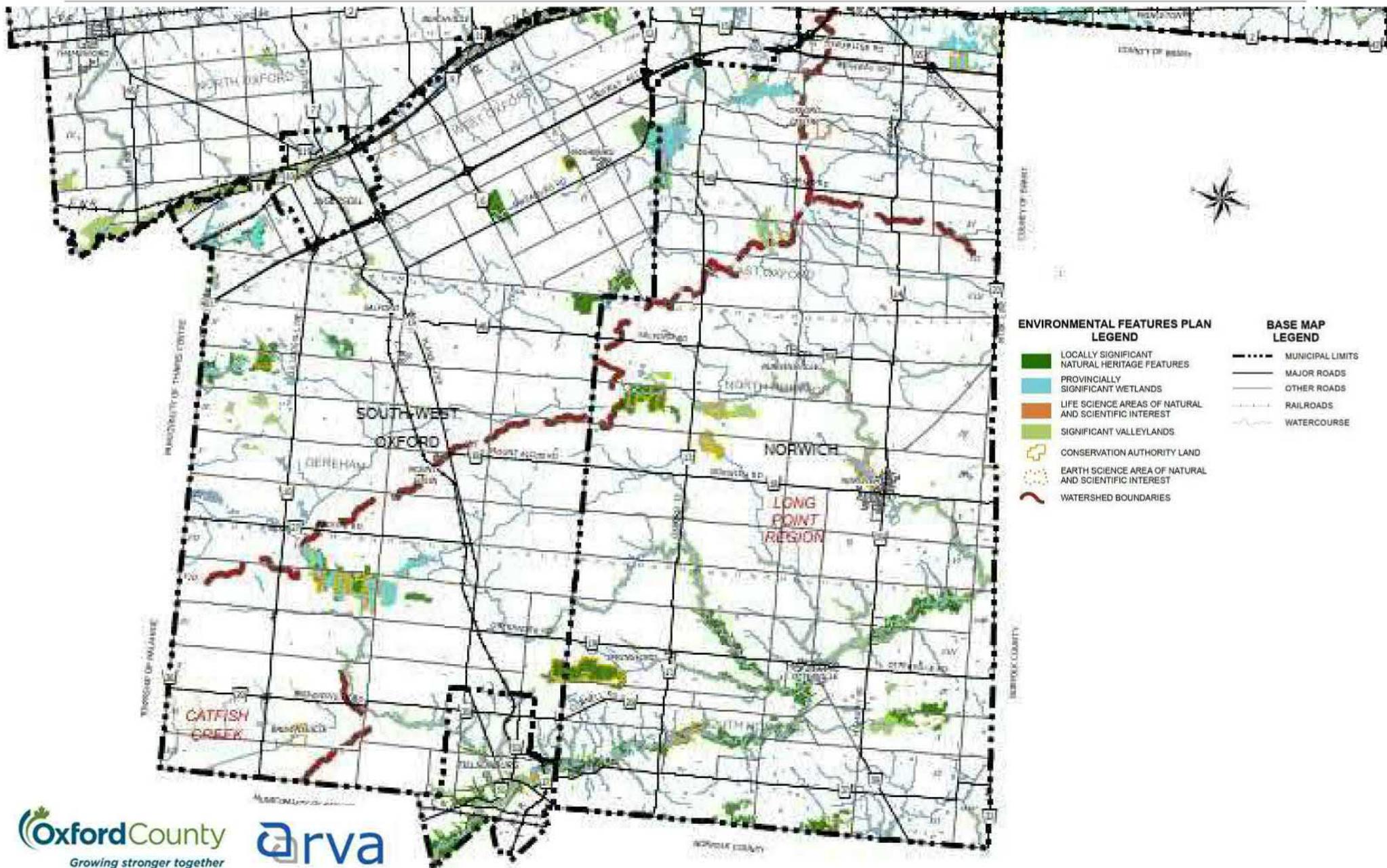
- Distribution of Natural Areas across County municipalities

Percent Land Cover by Area (%)					
Geographic Area	Significant Wetlands	Significant Woodlands	ANSI (Life Science)	ANSI (Earth Science)	Significant Valleyland
Township of Norwich	2.07	12.25	0.44	0	6.62
Township of South-West Oxford	2.57	10.05	0.37	0.01	4.19
Township of Zorra	1.52	13.22	0.34	1.05	10.06
Township of Blandford-Blenheim	10.18	18.99	4.82	1.93	13.97
Township of East Zorra-Tavistock	0.41	8.45	0	0.94	3.97
Town of Ingersoll	0.64	13.46	0	0	18.35
Town of Tillsonburg	0	19.25	6.53	0	25.56
City of Woodstock	4.87	11.04	0.38	0	9.6

Natural Environment



Natural Environment



Work to Date

- Project Start Up Meeting (County Meeting #1) - 19-Jan-22
- Undertook Background Review and Confirm System Demand to 2046 - January to April 2022
- Notice of Study Commencement published in March 2022
- Collected and reviewed agency/public/First Nations feedback
- Reviewed population growth projections provided by the County

Growth Centres and Population Forecasts

Area Municipality	Village	2021 Population	2046 Projection
Blandford – Blenheim	Drumbo	2,019	3,009
Blandford – Blenheim	Plattsville	1,284	2,519
Norwich	Norwich	4,328	6,885
South-West Oxford	Mount Elgin	702	1,891
South-West Oxford	Embro	996	1,341
East Zorra – Tavistock	Tavistock	3,375	5,013
East Zorra – Tavistock	Innerkip	1,596	2,636
Zorra	Thamesford	2,997	3,942
Ingersoll	-	14,065	18,785
Tillsonburg	-	19,120	23,890
Woodstock	-	47,965	67,295

Water Systems Initial Assessment

Initial assessments have reviewed the water systems and their components (wells, treatment systems, pumping stations, storage reservoirs and towers) and included:

- Current water system demands and capacity limits
- Current and recent studies and infrastructure projects
- Potential changes in the regulation of Drinking Water
- How systems presently operate
- Current production capacity of wells
- Current treatment capacity of treatment facilities
- Current capacity of pumping stations
- Current storage capacity of water storage facilities
- The current physical state, location, potential constraints, and opportunities of the components

Wastewater Systems Initial Assessment

Initial assessments have reviewed the wastewater systems and their components (sewage pumping stations, wastewater treatment plants, odour control systems, Biosolids Centralized Storage Facility) and included:

- Current wastewater flows and capacity limits
- Current and recent studies and infrastructure projects
- Potential changes in the wastewater regulation
- How systems presently operate
- Current treatment capacity of wastewater treatment facilities
- Current capacity of pumping stations and odour control systems
- Current biosolids production
- The current physical state, location, potential constraints, and opportunities of the components

Any comments
or questions?



Climate Change and Sustainability

Oxford County is addressing climate change through their 100% Renewable Energy Plan, Public Works Strategy Roadmap, Future Oxford Community Sustainability Plan

The W/WW MP will use the Envision Framework as a guide in the development of planning level solutions

Envision can be used throughout the entire lifecycle of a project - however, the earlier it is applied, the greater the value it can deliver

Climate Change and Sustainability

60 sustainability criteria, called 'credits,' which are arranged in five categories:



Quality of Life specifically addresses a project's impact on communities from the health and wellbeing of individuals to the wellbeing of the larger social fabric.



Leadership is comprised of the tasks that demonstrate effective leadership and commitment by all parties involved in a project. The meaningful commitment from the owner, team leaders and constructors.



Resource Allocation measures the use of renewable and non-renewable resources for the project. Benefits of managing resources needed will allow a longer life as we know it.



Natural World allows project teams to assess the effect of the project on the preservation and renewal of ecosystem functions. This section addresses how to understand and minimize negative impacts while considering ways in which the infrastructure can interact with natural systems in a synergistic and positive way.



Climate And Risk looks at two main concepts: minimizing emissions that may contribute to increased short- and long-term risks and ensuring that infrastructure projects are resilient to short-term hazards or altered long-term future conditions.

Project Schedule

- Undertake PCC # 1- September 29, 2022
- Undertake Water System Master Plan – May to December 2022
- Undertake Wastewater System Master Plan- May to December 2022
- County Council Presentation of Master Plan Progress (Council Presentation # 1) – November 2022
- Undertake PCC # 2 - March 2023
- County Council Presentation of Master Plan Report (Council Presentation # 2) - May 2023
- County Issues Notice of Completion - May 2023
- Master Plan Completed (following 30-day review period) - June 2023

Questions?

THANK YOU FOR ATTENDING!

- Material on this meeting will be posted on the **Speak Up, Oxford!** <https://speakup.oxfordcounty.ca/wwwmp>
- Please feel free to “raise your hand” to ask a question or submit your comments via email or phone a member of the study team or vial the Speak Up, Oxford site

Don Ford, BA, CMM III, C.Tech.
Manager, Water and Wastewater
Oxford County
519-539-9800 x3191
dford@oxfordcounty.ca



John Tyrrell, P.Eng.
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038
jtyrrell@rvanderson.com

MEMORANDUM

TO: File **RVA:** 215063
FROM: John Tyrrell
DATE: September 29, 2022
SUBJECT: Summary of PCC # 1 (Virtual) September 29, 2022

Introduction

PCC # 1 was scheduled as a virtual presentation on September 29, 2022 through a Microsoft Teams Link provided through the County's project website at www.oxfordcounty.ca/wwwmp. The presentation commenced shortly after 5:30 PM.

Attendance and Discussion at the PCC

In attendance from the project team were Don Ford and Mackenzie Shultz from Oxford County and John Tyrrell from R.V. Anderson Associates Limited. From the City of Woodstock, Harold de Haan, the City Engineer was in attendance. July Welker of the Upper Thames River Conservation Authority's Source Water Protection Program was also in attendance. There were eight additional attendees at the presentation including residents, consultants, and others.

Don Ford introduced the PCC to the attendees and John Tyrrell undertook the presentation.

There were some general questions on the Master Plan process and some questions regarding such issues as surface water protection, bypass events at sewage pumping stations and plants and assumptions that the Master Plan would be making regarding service demand. These were answered by the project team.

The presentation and the meeting concluded at approximately 6:20 PM.

The presentation was posted on the project website at www.oxfordcounty.ca/wwwmp for public review.

John Tyrrell, M.Sc.(Eng.), P.Eng.
Senior Project Manager, Municipal
jttyrrell@rvanderson.com

APPENDIX 2.4.2

SUO Feedback Survey

01 September to 19 October, 2022



Feedback form

SURVEY RESPONSE REPORT

01 September 2022 - 19 October 2022

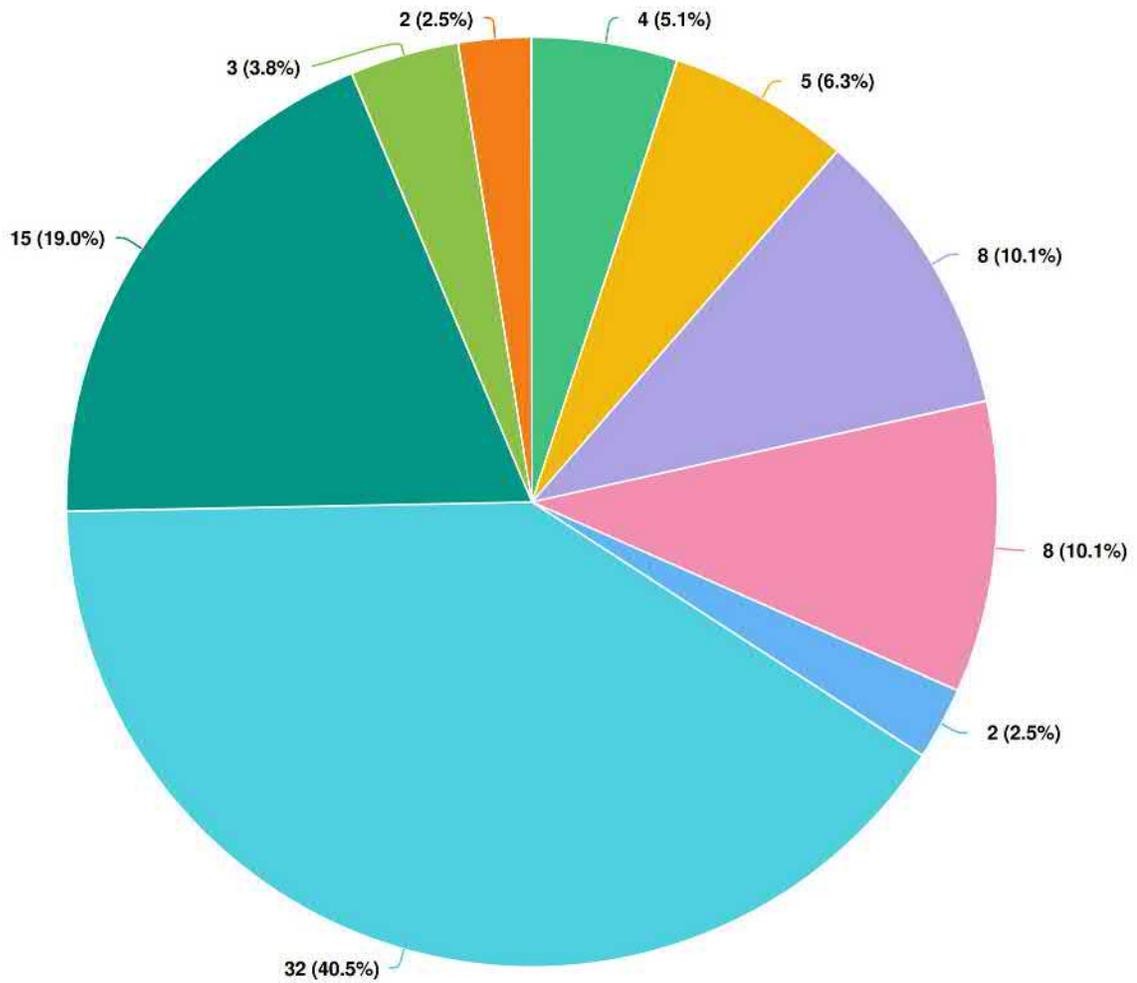
PROJECT NAME:

Water and Wastewater Master Plan

REGISTRATION QUESTIONS

SURVEY QUESTIONS

Q1 Where do you live?

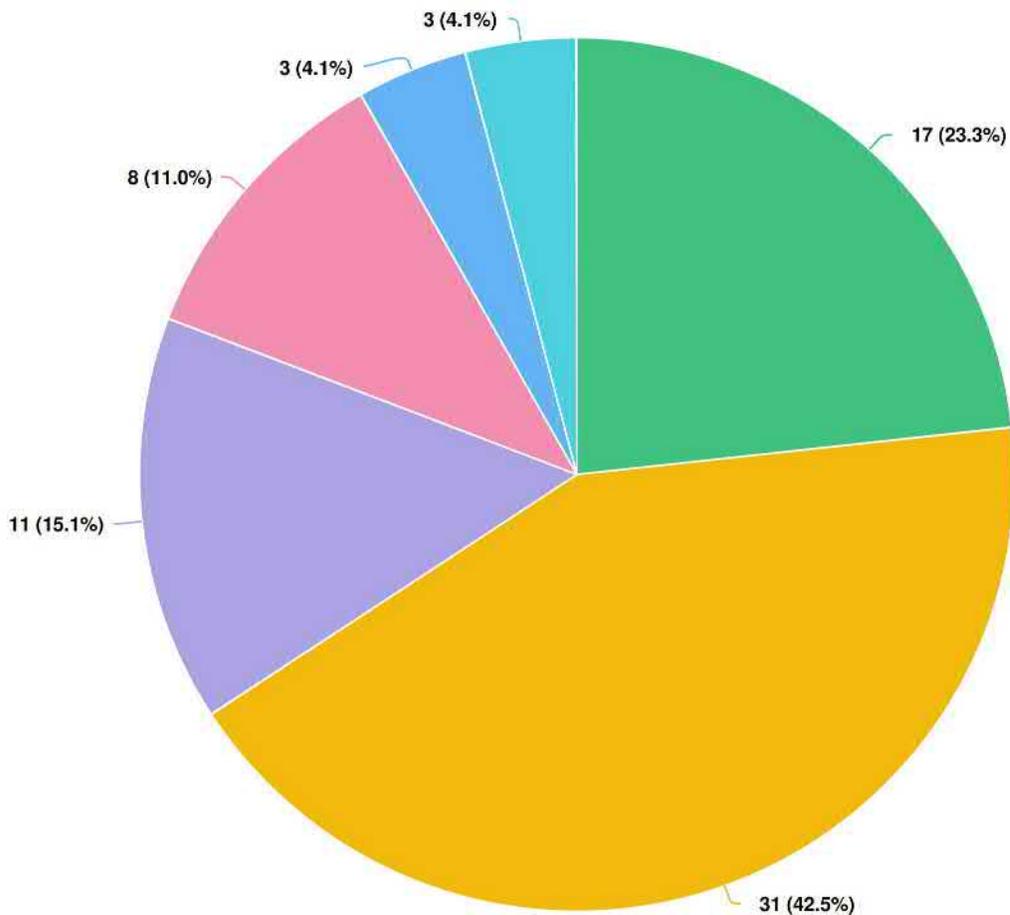


Question options

- Blandford-Blenheim
- East Zorra-Tavistock
- Ingersoll
- Norwich Township
- South-West Oxford
- Tillsonburg
- Woodstock
- Zorra
- I live outside of Oxford County

Optional question (79 response(s), 0 skipped)
Question type: Dropdown Question

Q2 Billing. Your water services bill funds the cost of water treatment to ensure safe drinking water and also maintenance of the water distribution system (e.g., repairing leaks and watermain breaks). It also funds the long-term capital costs of maint...



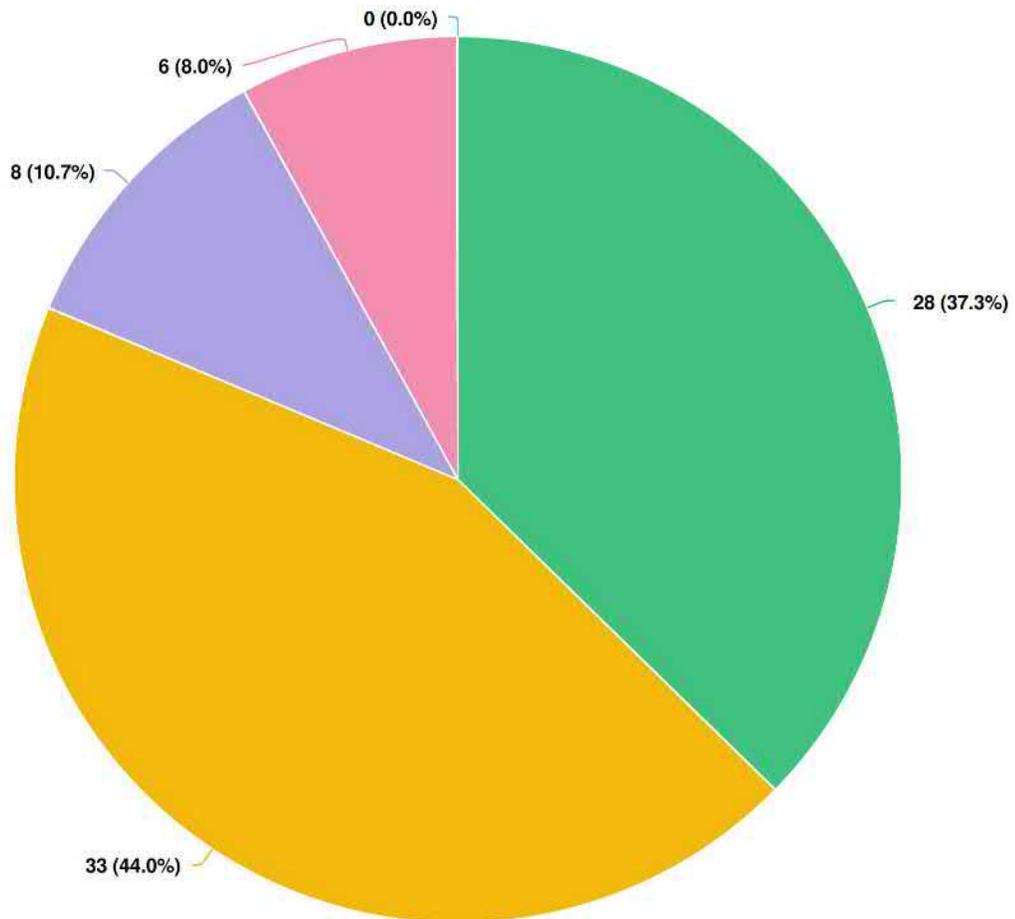
Question options

- Very satisfied, and I would consider paying a nominally higher rate to improve treatment, systems and/or services in my community.
- I am satisfied with the current services I receive AND the current rates that I pay.
- I am satisfied with the current services I receive, but NOT the rates that I pay.
- I not satisfied with the current services I receive NOR the current rates that I pay.
- Not applicable: I don't pay for these services (e.g., tenant, live out of area)
- Other (please explain)

Optional question (73 response(s), 6 skipped)

Question type: Dropdown Question

Q3 Energy efficiency. The Water and Wastewater Master Plan will look at the energy efficiency of Oxford's systems. Right now, energy consumption for water and wastewater services occurs at the treatment plants and is used to pump water/wastewater to ...

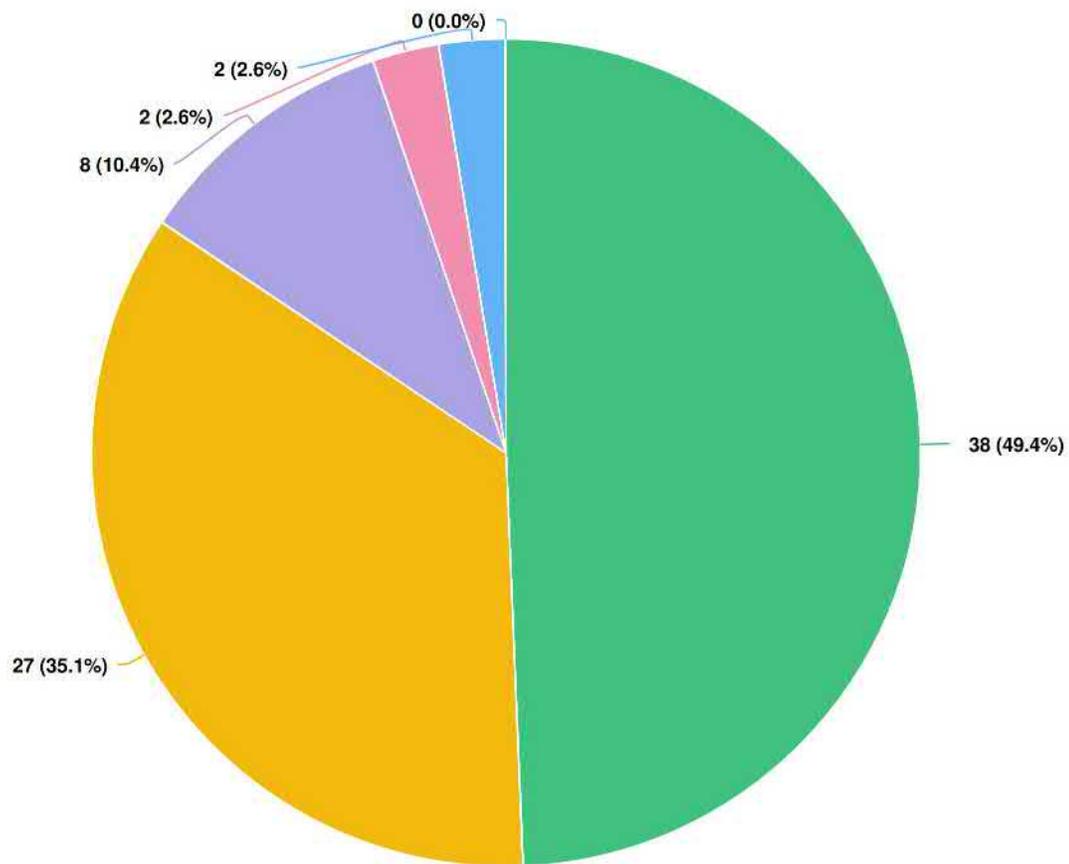


Question options

- This is an area to prioritize and significantly improve upon (e.g., carbon offsetting, green infrastructure, renewable energy).
- There may be room for some improvements if costs and other factors are favourable.
- This is a low priority: I am happy with the County's current commitment to energy efficiency.
- Not sure: I would need to know more. ● Other (please explain)

*Optional question (75 response(s), 4 skipped)
Question type: Dropdown Question*

Q4 Wastewater services. Wastewater treatment is a necessary part of protecting environmental health. Over the next 20 years, how should Oxford County prioritize investment in wastewater treatment to better protect the environment?

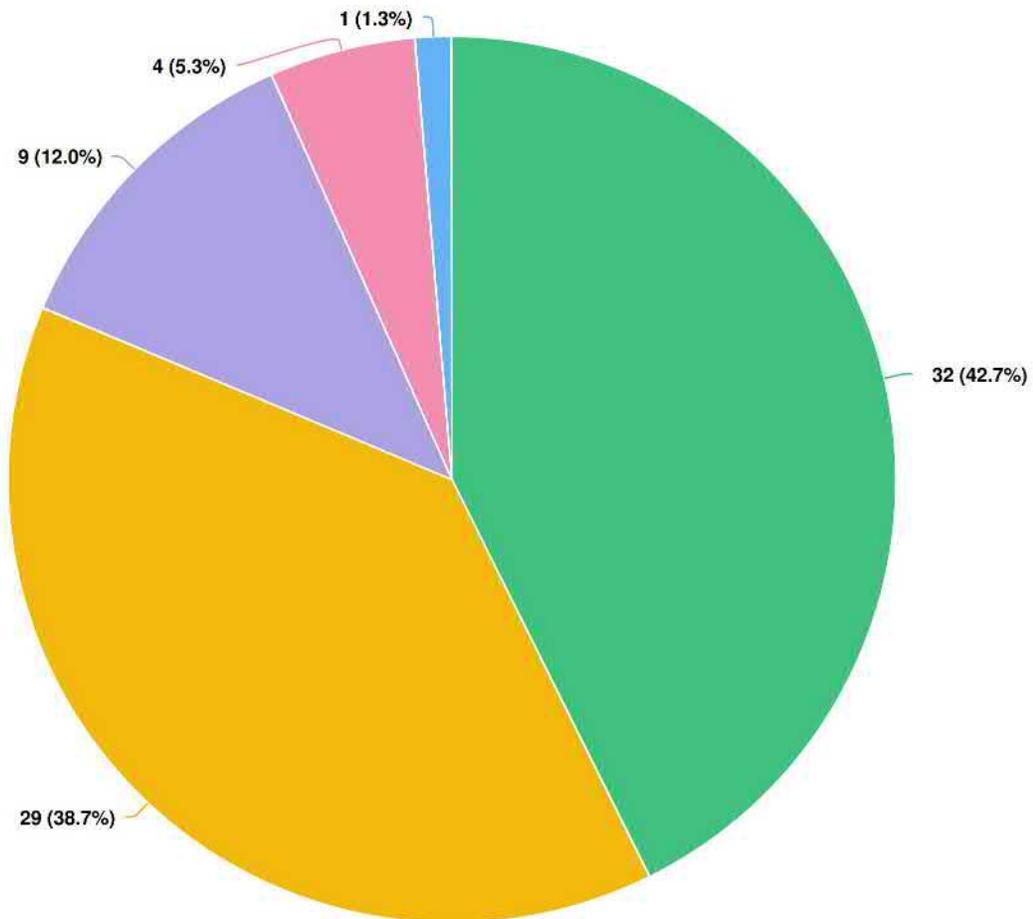


Question options

- The County should prioritize this area and actively explore opportunities for further resource recovery and advanced treatment options.
- There may be room for some improvements if costs and other factors are favourable.
- This is a low priority: I am happy with the County's current commitment to wastewater treatment.
- Not sure: I would need to know more.
- This question does not apply to me (my community currently does not receive municipal wastewater treatment).
- Other (please explain)

*Optional question (77 response(s), 2 skipped)
Question type: Dropdown Question*

Q5 Water aesthetics (smell and taste). Drinking water treatment involves disinfecting water before it reaches residents. In some cases, this process can also remove dissolved metals or other dissolved material that can affect the smell, taste or look ...

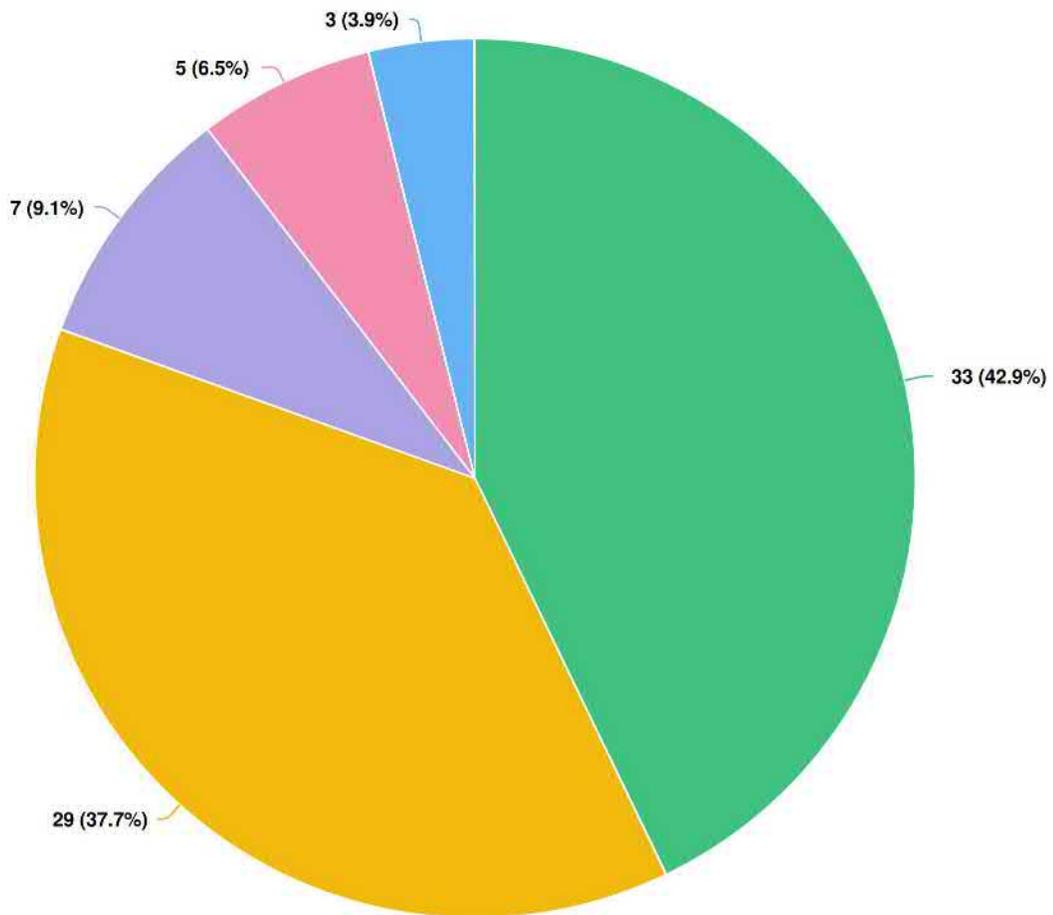


Question options

- The County should prioritize this area and actively look at treatment options to further improve the aesthetics of drinking water.
- There may be room for some improvements if costs and other factors are favourable.
- This is a low priority: I am happy with the County's current commitment to water treatment.
- Not sure: I would need to know more. ● Other (please explain)

*Optional question (75 response(s), 4 skipped)
Question type: Dropdown Question*

Q6 Water storage and supply. Our communities are growing and so are we—Oxford County routinely monitors the capacity (storage and supply) of our drinking water systems to meet current needs and future growth. A healthy system capacity is needed to ens...



Question options

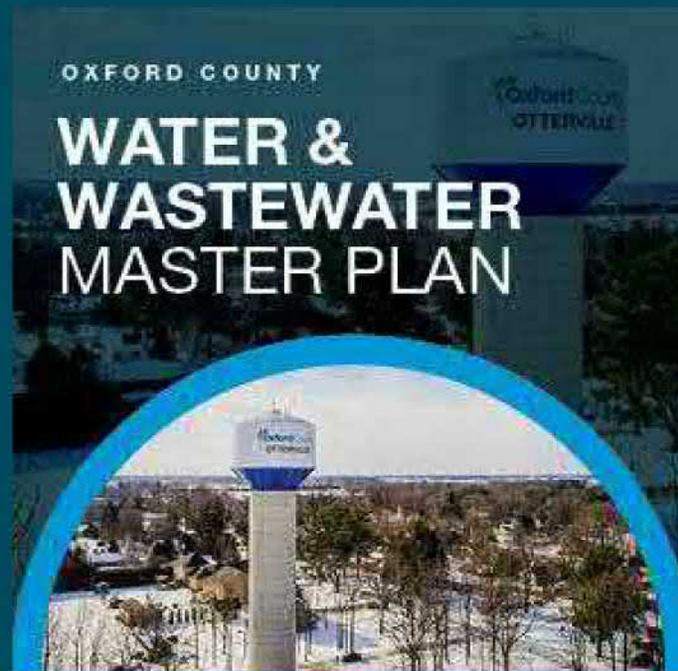
- The County should prioritize this area and seek improvements (e.g., my community does not currently have fire protection and I would support this addition).
- There may be room for some improvements if costs and other factors are favourable.
- This is a low priority: I am happy with the County's current commitment to capacity (storage and supply).
- Not sure: I would need to know more. ● Other (please explain)

*Optional question (77 response(s), 2 skipped)
Question type: Dropdown Question*

APPENDIX 2.4.3

PCC 2 Presentation and Note to File





2024 Water and Wastewater Master Plan

PUBLIC CONSULTATION CENTRE #2 – LIVE PRESENTATION AND Q&A
JUNE 27, 2023 6:00 - 8:00 PM

Comment period for PCC #2 open until July 11, 2023



THIS MEETING IS BEING RECORDED. BY PARTICIPATING IN THIS MEETING. YOU ARE CONSENTING TO BE RECORDED.

WE WANT TO HEAR FROM YOU!

- “Raise your hand” to ask a question during the meeting
- Submit your comments via email or phone
- Leave a comment or question for the study team on Speak Up, Oxford

Scan the QR
Code to visit the
Project Page



OR

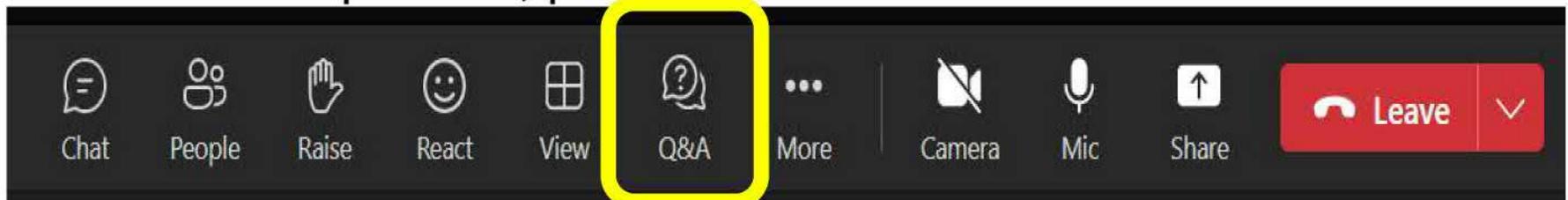
Visit:
www.oxfordcounty.ca/wwwmp

Don Ford, BA, CMM III, C.Tech.
Manager, Water and Wastewater
Oxford County
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dford@oxfordcounty.ca

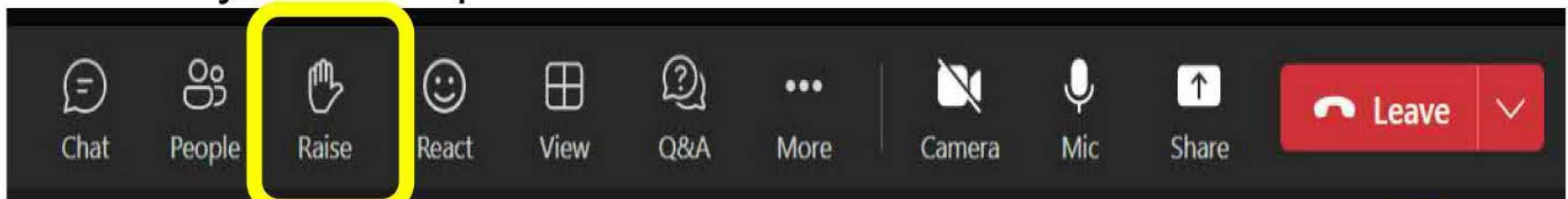
John Tyrrell, P.Eng.
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038
jtyrrell@rvanderson.com

HOUSEKEEPING ITEMS

- When joining the online meeting, as attendees your microphone and video will be automatically disabled.
- There will be an opportunity at the end of the presentation to ask any questions or submit comments.
 - > To submit a question, please use the Q&A function



- > You can also ask your question directly to the project team by using the raise hand function. When it is your turn, a team member will enable your microphone



PURPOSE OF PCC #2

- To allow the public to understand the planning level recommendations from the Draft Master Plan report
- Recommendations have been reviewed by Internal Technical Advisory Committee (County staff) and External Technical Advisory Committee (Municipalities, Agencies)
- Input received from this will be used to develop the final Master Plan
- Specific concerns will be reviewed and appropriately addressed

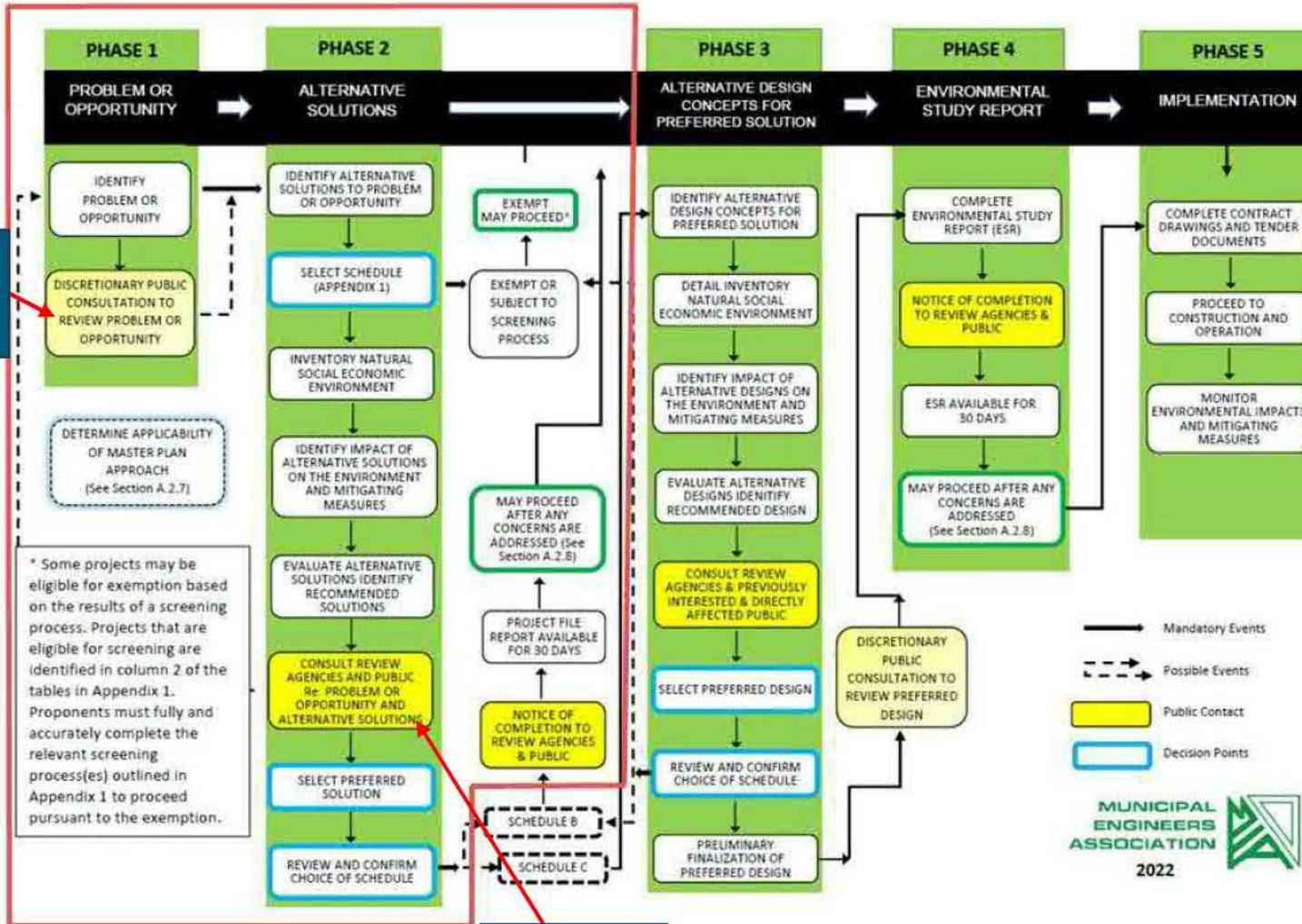
GOALS OF OXFORD'S W/WW MP

1. Provide water and wastewater strategies to service existing settlement areas and growth to the year 2046
2. Develop water and wastewater strategies that are consistent with and conform to Provincial policies/legislation and support the County's Official Plan and strategic initiatives
3. Identify options for optimizing the effectiveness of the existing water and wastewater infrastructure;
4. Develop an integrated multi-year water and wastewater capital implementation plan which affords infrastructure reliability, redundancy and sustainability

CLASS EA / MASTER PLAN PROCESS

EXHIBIT A.2. MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the MCEA



PCC #1
Sept 22

PCC #2
Now

PROBLEM/OPPORTUNITY STATEMENT

To identify preferred water and wastewater servicing strategies to meet Oxford's growth needs to 2046 as well as provide effective ongoing continuity to existing serviced settlement areas across Oxford County as appropriate.



OXFORD COUNTY RESIDENTIAL POPULATION GROWTH

Municipality	Estimated Annual Population Growth *						Growth 2021-2046
	2021**	2026	2031	2036	2041	2046	
Woodstock	47,965	51,825	55,815	59,825	63,595	67,295	19,330
Tillsonburg	19,120	20,020	20,980	21,980	22,960	23,890	4,770
Ingersoll	14,065	14,955	15,915	16,895	17,855	18,785	4,720
Blandford- Blenheim	7,770	8,090	8,440	8,810	9,190	9,550	1,780
East Zorra- Tavistock	8,050	8,530	9,040	9,560	10,050	10,510	2,460
Norwich	11,450	11,920	12,420	12,960	13,490	13,990	2,540
South-West Oxford	7,785	8,025	8,295	8,555	8,765	8,975	1,190
Zorra	8,860	9,110	9,370	9,650	9,950	10,240	1,380
Oxford County	125,065	132,475	140,275	148,235	155,855	163,235	38,170

* Where a Township contains more than one fully serviced settlement area, assumptions regarding the allocation of the Township's total forecasted growth to each settlement will also be used to inform the study findings for each system.

** 2021 Census Population with preliminary correction for undercount of approximately 3%

OXFORD COUNTY NON-RESIDENTIAL POPULATION GROWTH

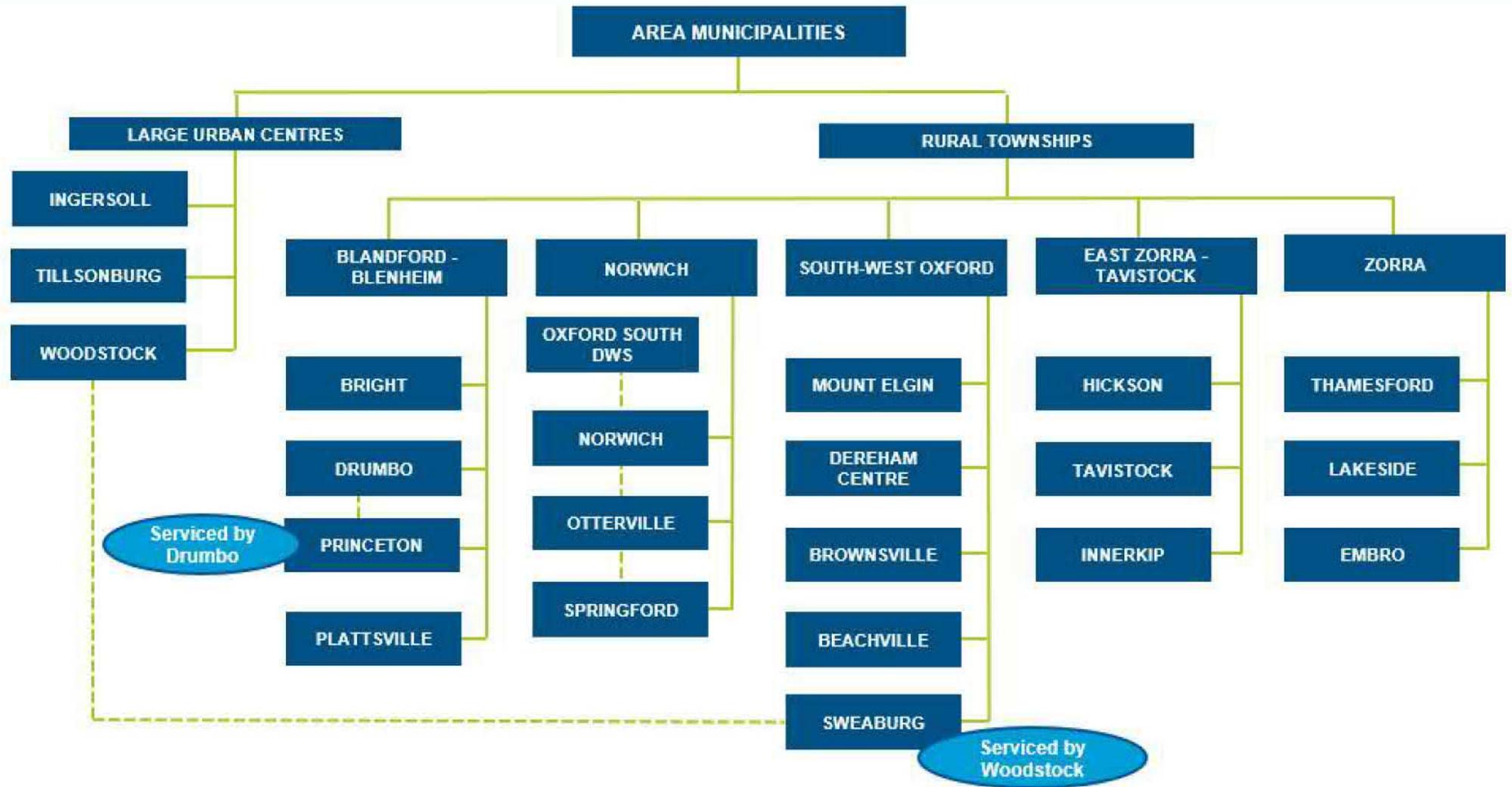
Municipality	Estimated Annual Employment Growth *						Growth 2021-2046
	2021	2026	2031	2036	2041	2046	
Woodstock	28,440	30,040	31,690	33,720	36,050	38,730	10,290
Tillsonburg	9,060	9,320	9,600	9,950	10,360	10,810	1,750
Ingersoll	9,710	10,080	10,470	10,950	11,510	12,150	2,440
Blandford-Blenheim	1,910	1,950	1,990	2,050	2,120	2,210	300
East Zorra-Tavistock	2,950	3,020	3,100	3,200	3,320	3,450	500
Norwich	4,200	4,280	4,360	4,470	4,600	4,740	540
South-West Oxford	2,920	2,960	2,990	3,040	3,090	3,150	230
Zorra	2,890	2,920	2,960	3,010	3,080	3,150	260
Oxford County	62,080	64,570	67,160	70,390	74,130	78,390	16,310

* Figures may not add precisely due to rounding

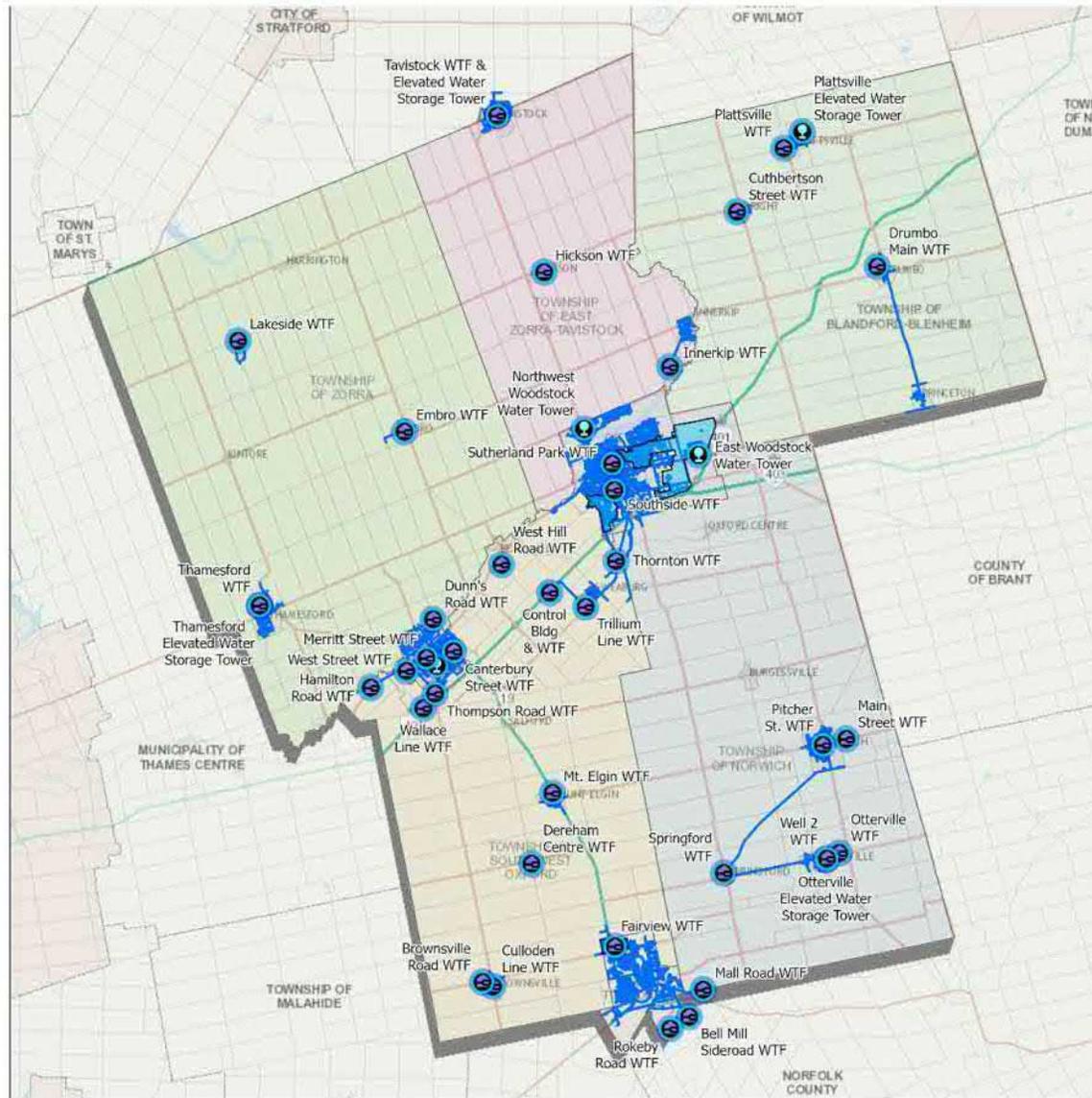
SYSTEM OVERVIEW STRUCTURE

- Water and Wastewater System Review
 - Design Criteria – established for system
 - Components and Capacity – reviewed current issues and capacities
 - System Demands – projected system demands
 - Issues – identified growth, risk, and climate change issues for systems
 - Firm Capacity – for water supply, ability to provide service when largest well/pump/treatment train is off line
- Potential Projects
 - Review issues and identify solutions
 - Identified projects and proposed timeline for requirement
 - Consider solutions that could address issues across multiple systems (co-benefits)

COUNTY WATER SYSTEMS



EXISTING WATER INFRASTRUCTURE



WATER SYSTEM COMPONENTS

Component	Sub-Components
Water Supply	<ul style="list-style-type: none">• Groundwater well(s)• Pumping
Water Treatment	<ul style="list-style-type: none">• Treatment at Well House• Centralized Treatment (multiple wells)
Water Distribution and Booster Pumping	<ul style="list-style-type: none">• Watermains• Booster Pumping Stations (BPS)• Pressure Zones
Water Storage	<ul style="list-style-type: none">• In-ground Storage (associated BPS)• Elevated Storage

WATER SYSTEM OPPORTUNITY AND CONSTRAINTS

- Security of supply
 - (i.e., standby power to water facilities, specialized well rehabilitation, water blending, feedermain twinning, water efficiency and conservation, etc.);
- System redundancy
 - (i.e., new well supplies to increase firm capacity, inter-system water connections, watermain looping, etc.)
- Impacts due to new areas requiring servicing
- Pressure zone boundary adjustments
 - (i.e., infill and intensification, new employment lands, secondary units, etc.)
- Water production and system operational issues
 - (i.e., pressure, fire flow, filtration backwash frequencies, etc.);
- Infrastructure capacity limitations
 - (i.e., high lift pumps, feeder mains, well yields, etc.)
- Source water quality
 - (i.e., nitrates, iron, manganese, naturally occurring arsenic, etc.); and
- Unaccounted system water loss

EVALUATION CRITERIA

Category	Criteria
Technical	<ul style="list-style-type: none"> • Constructability • Improvement to operations • Infrastructure required • Approval requirements • Risk mitigation – regulatory, supply security, climate change, etc.
Social and Cultural	<ul style="list-style-type: none"> • Public acceptance • Impact to cultural heritage infrastructure and landscapes • Impact to archaeological infrastructure and resources
Environmental	<ul style="list-style-type: none"> • Impact to aquatic and terrestrial species and habitat • Impact to surface water quantity and quality • Impact on climate change
Economic	<ul style="list-style-type: none"> • Capital costs • Operation and maintenance costs • Allows for planned community growth

WATER SERVICING ALTERNATIVE SOLUTIONS

County Level Solutions (common to all potential projects)

- **Alternative 1 (Do Nothing)** would not provide the water and servicing capacity to the existing and planned growth
 - > *Not considered moving forward.*
- **Alternative 2 (Limit Growth)** neither meets the County's vision for the growth centres and nor does it mitigate the water servicing risks for the existing serviced population
 - > *Not considered moving forward.*
- **Alternative 3 – Conservation/Reduction**– County has specific ongoing initiatives
 - > *Should Continue to be implemented*
- **Alternative 4 - Various Water System Servicing Concepts** ex: new wells, pipes, pumping, storage, supply & treatment, interconnections, etc.

WATER SERVICING ALTERNATIVE SOLUTIONS

Issues	Solutions Reviewed
Water Supply	<ul style="list-style-type: none">• Additional local well• Interconnection with another system• Specialized well rehab• Water conservation
Water Treatment	<ul style="list-style-type: none">• Treatment at well• Centralized treatment (multiple wells)• Treatment technologies (if applicable)
Water Distribution and Booster Pumping	<ul style="list-style-type: none">• Refurbish/upsized existing watermains• New watermains• Refurbish existing or build new BPS/standpipe• Revise existing or create new pressure zones
Water Storage	<ul style="list-style-type: none">• In-ground Storage (associated BPS)• Elevated Storage
Risk	<ul style="list-style-type: none">• Backup power generation• Source water protection• System redundancy and reliability• Resiliency• Understand emergent threats

TOWN OF INGERSOLL

Ingersoll DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Existing storage capacity deficit approaching 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Water distribution system extension to service South West Industrial Park - Watermains, BPS, and elevated storage, including Hwy 401 crossings
 - > Wallace Line Trunk Watermain
 - > South Thames Trunk Watermain

TOWN OF TILLSONBURG

Tillsonburg DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Upgrades to Wells 3, 7A
 - > Water security – Replacement of Mall Road Wells 1A, 2, North Street backup power, Specialized well rehabilitation to maintain well yields
 - > Water distribution system extension to service residential and employment infill areas – Trunk Watermains, Watermain Looping/Upsizing

CITY OF WOODSTOCK

Woodstock DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Water security – Source water protection, Tower backup power generation, Southside WTF replacement, Thornton Feedermain twinning, Specialized well rehabilitation to maintain well yields, Upgrades Well 6&9
 - > Water distribution system extension (watermains, BPS, and storage, Highway crossings) to service infill areas and NE Industrial Park, SE Industrial Park and Karn Rd
 - > Pressure Zone expansions (Zone 2, Zone 3) and new Zone 6 (Karn Road)

TOWNSHIP OF BLANDFORD-BLENHEIM

Drumbo-Princeton DWS

- **SERVICING CAPACITY:**
 - > Water Supply Capacity expansion needed by 2031
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > New Well Supply
 - > Specialized Well Rehabilitation to maintain well yields
 - > Standby Power to Existing Well Field
 - > Water distribution system extension to service infill areas - Trunk watermains / upsizing

Plattsville DWS and Bright DWS

- **SERVICING CAPACITY:**
 - > Plattsville - adequate water supply and storage capacity to 2046
 - > Bright - adequate water supply and storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Plattsville New Well Supply (Security of Supply)
 - > Plattsville WTF Filtration Upgrades
 - > Plattsville to Bright Water System Interconnection (Security of Supply)

TOWNSHIP OF NORWICH

Oxford South DWS

- **SERVICING CAPACITY:**
 - > Adequate water supply capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Norwich Well 4 WTF Filtration Upgrades
 - > New Water supply (Security of Supply)
 - > Well 4 WTF Secondary Storage (Security of Supply)

TOWNSHIP OF SOUTH-WEST OXFORD

Mount Elgin DWS

- **SERVICING CAPACITY:**
 - > Water supply firm capacity deficit approaching 2031
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Mount Elgin WTF Optimization to regain plant design capacity
 - > Trunk Watermain Interconnection to Ingersoll Water System

Beachville DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > New Well Supply and Standpipe (Security of Supply)

TOWNSHIP OF SOUTH-WEST OXFORD

Brownsville DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Water Quality Improvements
 - > WTF Filtration Upgrades – Security of Supply

Dereham Centre DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Watermain replacements

TOWNSHIP OF EAST ZORRA-TAVISTOCK

Innerkip DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Adequate storage capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Watermain Replacements

Tavistock DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Additional Storage capacity needed by 2028
- **KEY INFRASTRUCTURE PROJECTS:**
 - > New Well Supply, Treatment and additional storage (Well 4)
 - > Tavistock WTF Filtration Upgrades (manganese)
 - > Water distribution extension/upsizing for growth

Hickson DWS – no issues noted other than one well supply

TOWNSHIP OF ZORRA

Thamesford DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Storage capacity minor deficit
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Reservoir CT Enhancements (reallocation to Storage)
 - > Water distribution system extension – Trunk Watermain

Embro DWS

- **SERVICING CAPACITY:**
 - > Adequate water capacity to 2046
 - > Storage capacity minor deficit
- **KEY INFRASTRUCTURE PROJECTS:**
 - > New Storage - Embro WTF

Lakeside DWS – no issues noted other than one well supply

WATER CAPITAL IMPLEMENTATION PROGRAM

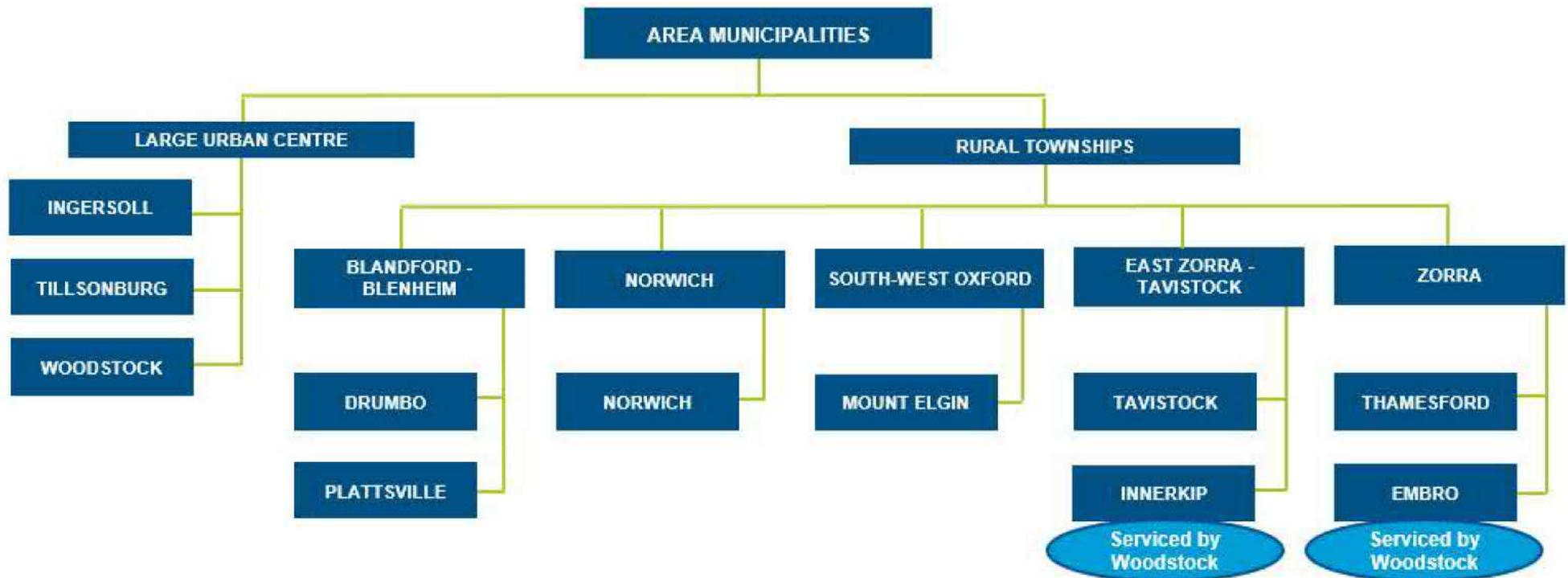
(\$ millions)

Municipality	1-5 Years	6-10 Years	+ 10 Years	Total*
Ingersoll	\$15.6	\$16.5	\$19.1	\$51.2
Tillsonburg	\$19.8	\$7.7	\$16.2	\$43.6
Woodstock	\$45.9	\$21.4	\$39.3	\$87.2
Blandford Blenheim	\$8.6	\$4.9	\$6.3	\$19.8
Norwich	\$2.7	\$3.9	\$4.1	\$10.6
SW Oxford	\$0.4	\$2.8	\$11.1	\$14.4
East Zorra Tavistock	\$9.5	\$13.1	\$1.2	\$23.8
Zorra	\$2.3	\$1.5	\$1.9	\$5.6
Plan Totals**	\$104.8	\$71.8	\$99.1	\$275.7

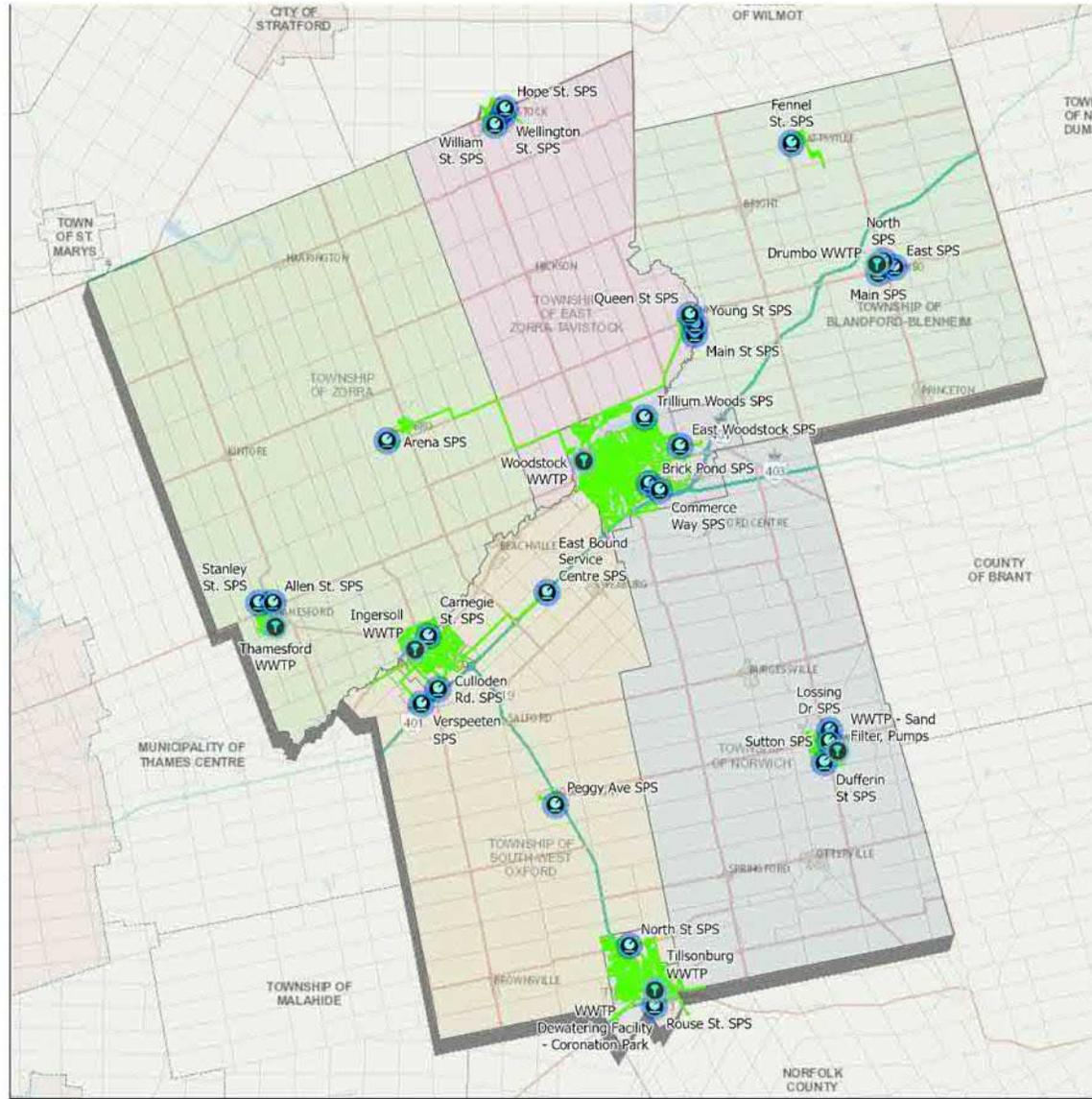
*Municipality Total Projects are detailed in the Appendix.

**Plan Totals may not add precisely due to rounding.

COUNTY WASTEWATER SYSTEMS



EXISTING WASTEWATER INFRASTRUCTURE



WASTEWATER SYSTEM COMPONENTS

Component	Solutions Reviewed
Wastewater Collection and Conveyance	<ul style="list-style-type: none">• Local Gravity Sewers• Trunk Sewers• Sanitary Pumping Station• Forcemain• Siphon (gravity flow underneath river)
Wastewater Treatment	<ul style="list-style-type: none">• Headworks (to screen sewage)• Liquid Treatment of wastewater (primary and secondary treatment)• Tertiary Treatment (where required) to reduce nutrients in wastewater• Disinfection• Solids Management (treatment, storage, disposal)• Wet weather flow treatment (in some cases)• Septage receiving (in some cases)

WASTEWATER SYSTEM OPPORTUNITY AND CONSTRAINTS

- Security of conveyance and treatment
 - (i.e., standby power to pumping stations and WWTPs, need for facility resilience due to climate change, etc.);
- System redundancy
 - (i.e., treatment train flexibility, solids handling capacity at WWTP (centrifuges) and lagoons, forcemain twinning, Additional trunk sewer redundancy, etc.)
- Impacts due to new areas requiring servicing
 - Collection system expansion
 - (i.e., infill and intensification, new employment lands, secondary units, etc.)
- Wastewater treatment and Sewage Pumping Station operational issues
 - (i.e., wet weather events, odour control, maintenance of discharge criteria etc.);
- Infrastructure capacity limitations
 - Changing regulations and treatment requirements due to limitations of capacity of receiving streams (i.e., nutrients, etc.), emerging contaminants; and
 - Physical capacity limits (i.e., pumping station capacity, sewer and forcemain capacity, treatment train refurbishment, etc.)
- Collection system inflow and infiltration

WASTEWATER SERVICING ALTERNATIVE SOLUTIONS

County Level Solutions (common to all potential projects)

- **Alternative 1 (Do Nothing)** would not provide the water and servicing capacity to the existing and planned growth
 - > *Not considered moving forward*
- **Alternative 2 (Limit Growth)** neither meets the County's vision for the growth centres and nor does it mitigate the water servicing risks for the existing serviced population
 - > *Not considered moving forward*
- **Alternative 3 – Infiltration/Inflow Reduction**– County has specific ongoing initiatives
 - > *Should continue and be augmented*
- **Alternative 4 – Wastewater System Servicing Concepts** ex: new linear infrastructure, pumping, treatment expansions, etc.

WASTEWATER SERVICING ALTERNATIVE SOLUTIONS

Component	Sub-Components
Wastewater Collection and Conveyance	<ul style="list-style-type: none">• Reduce inflow and infiltration to sewers• Refurbish/upsized existing sewers• New sewers• Refurbish and upsized existing SPS and forcemains• Build new SPS and forcemains• Revise existing or create sanitary sewer catchment areas
Wastewater Treatment	<ul style="list-style-type: none">• Reduce inflow and infiltration to sewers• Optimize existing WWTPs or components• Refurbish/Expand WWTPs or components• Send sewage to another WWTP via SPS and forcemain• Send effluent to a different receiving stream
Risk	<ul style="list-style-type: none">• Reduce inflow and infiltration to sewers• Backup power generation• System redundancy and reliability• Resiliency• Understand emergent threats

TOWN OF INGERSOLL

Ingersoll WWTP

- **SERVICING CAPACITY:**
 - > Adequate WWTP capacity to 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Wastewater system extension to service South West Industrial Park – Trunk sewers, SPS, forcemains including Hwy 401 crossings
 - > Wallace Line and Hamilton Road Trunk sewers
 - > Second trunk sewer crossing of Thames River
 - > WWTP Headworks Upgrade

TOWN OF TILLSONBURG

Tillsonburg WWTP

- **SERVICING CAPACITY:**
 - > Planned WWTP capacity expansion to serve **MS26** on hold development and future growth beyond 2041
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP Phase II Capacity Expansion
 - > WWTP Sewer Trunk Replacement/Upsizing
 - > Climate change resilience study for WWTP & SPS
 - > Stoney Creek Trunk Sewer Rehabilitation
 - > Upgrades to John Pound SPS and forcemains
 - > Wastewater system extension to service residential and employment infill – Trunk sewers / upsizing, Rouse St SPS upgrades

CITY OF WOODSTOCK

Woodstock WWTP

- **SERVICING CAPACITY:**
 - > Adequate WWTP capacity to year 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Trunk Sewer Inspection and Infiltration & Inflow Reduction
 - > Upgrades to WWTP Headworks & Thames Valley SPS
 - > Brick Pond Trunk Sewer Realignment
 - > Wastewater system extension to service infill and new secondary plan areas: East Woodstock, NE Industrial Park, SE Industrial Park and Karn Rd – Trunk sewers, SPS (Landsdowne, SPS A), Forcemains

TOWNSHIP OF BLANDFORD BLENHEIM

Drumbo WWTP

- **SERVICING CAPACITY:**
 - > Planned WWTP capacity expansion to service on hold development
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP Phase II Capacity Expansion

Plattsville WWTP

- **SERVICING CAPACITY:**
 - > Adequate WWTP capacity to year 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP optimization projects
 - > Lagoon Biosolids Removal and Berm Repair
 - > Wastewater system expansion to service infill areas (SPS and Forcemain Upgrades/Upsizing)

TOWNSHIP OF NORWICH

Norwich WWTP

- **SERVICING CAPACITY:**
 - > Planned WWTP capacity expansion to service on hold development and future growth
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP Phase 2 Capacity Expansions
 - > Lagoon Biosolids Removal and Berm Repair

TOWNSHIP OF SOUTH-WEST OXFORD

Mount Elgin WWTP

- **SERVICING CAPACITY:**
 - > Planned WWTP capacity expansions to service on-hold development MS27
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP Phase 3 and 4 Capacity Expansions
 - > Forcemain Interconnection to Ingersoll Wastewater System

TOWNSHIP OF EAST ZORRA-TAVISTOCK

Tavistock WWTP

- **SERVICING CAPACITY:**
 - > Planned WWTP capacity expansion to service future growth
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP Capacity Expansion
 - > Trunk Sewer Infiltration & Inflow Reduction
 - > William St SPS Capacity Upgrades
 - > Wastewater system expansion/upsizing for growth

Innerkip WW System (to Woodstock)

- **SERVICING CAPACITY:**
 - > Collection System Constraints by 2026
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Upsize or twin forcemain to Woodstock to allow for community growth

TOWNSHIP OF ZORRA

Thamesford WWTP

- **SERVICING CAPACITY:**
 - > Adequate WWTP capacity to year 2046
- **KEY INFRASTRUCTURE PROJECTS:**
 - > WWTP upgrades

Embro WW System (to Woodstock)

- > Collection System Constraints by 2041
- **KEY INFRASTRUCTURE PROJECTS:**
 - > Upgrade SPS to allow for community growth
 - > Upsize or twin forcemain to Woodstock to allow for community growth

WASTEWATER CAPITAL IMPLEMENTATION PROGRAM (\$ millions)

Municipality	1-5 Years	6-10 Years	+ 10 Years	Total*
Ingersoll	\$13.1	\$26.3	\$37.7	\$77.1
Tillsonburg	\$7.2	\$5.5	\$24.1	\$36.7
Woodstock	\$30.1	\$25.7	\$32.8	\$88.6
Blandford Blenheim	\$3.9	\$0.6	\$1.0	\$5.5
Norwich	\$11.8	\$1.9	\$1.8	\$15.5
SW Oxford	\$2.8	\$1.0	\$11.2	\$15.0
East Zorra Tavistock	\$55.6	\$4.1	\$8.3	\$68.0
Zorra	\$3.8	\$0.0	\$12.4	\$16.2
Plan Totals**	\$128.2	\$65.1	\$129.2	\$322.5

*Municipality Project Totals are rounded from the Appendix.

**Plan Totals may not add precisely due to rounding.

SUPPORTING POLICIES AND STRATEGIES

Project Description	1-5 Year	6-10 Year	+10 Year	Total
Fire Rated Systems Policy	\$50,000			\$50,000
Backup Power Prioritization Policy	\$35,000			\$35,000
Consultation for Servicing Upgrades Policy	\$75,000	\$75,000	\$150,000	\$300,000
Connected Systems Rate Servicing Policy	\$75,000	\$75,000	\$75,000	\$225,000
2029 Water and Wastewater Master Plan	\$450,000			\$450,000
2034 Water and Wastewater Master Plan		\$450,000		\$450,000
2039 Water and Wastewater Master Plan			\$450,000	\$450,000
2044 Water and Wastewater Master Plan			\$450,000	\$450,000
2029 Development Charges Technical Study		\$100,000		\$100,000
2034 Development Charges Technical Study		\$100,000		\$100,000
2039 Development Charges Technical Study			\$100,000	\$100,000
2044 Development Charges Technical Study			\$100,000	\$100,000
Total	\$685,000	\$800,000	\$1,325,000	\$2,810,000

OXFORD'S W/WW MP – PROJECT SCHEDULE

County Council Master Plan Report

July 12, 2023

- > Seek approval to issue Notice of Completion
- > Initiation of 45-day public and agency Review Period

Filing of Final Master Plan – September 2023

OXFORD'S WWW MP

THANK YOU FOR ATTENDING!

Material on this meeting will be posted on the **Speak Up, Oxford!**

<https://speakup.oxfordcounty.ca/wwwmp>

Please feel free to “raise your hand” to ask a question or submit your comments via email or phone a member of the study team or vial the Speak Up, Oxford site

Don Ford, BA, CMM III, C.Tech.
Manager, Water and Wastewater
Oxford County
519-539-9800 x3191
dford@oxfordcounty.ca



John Tyrrell, P.Eng.
Senior Project Manager
R.V. Anderson Associates Limited
519-681-9916 x 5038
jtyrrell@rvanderson.com

MEMORANDUM

To: File **Date:** June 27, 2023
From: John Tyrrell **Project No.:** 216063
Subject: Oxford 2024 W/WW MP PCC# 2

Attendance List

The following is the list of participants and attendees who logged on during the PCC.

Name	First Join	Last Leave
John Tyrrell	6/27/23, 5:54:48 PM	6/27/23, 7:23:19 PM
Deb Gilvesy (Guest)	6/27/23, 5:43:40 PM	6/27/23, 7:20:48 PM
Don Ford (Guest)	6/27/23, 5:46:48 PM	6/27/23, 7:25:54 PM
Mackenzie Schultz	6/27/23, 5:52:19 PM	6/27/23, 7:21:43 PM
Andrew Gilvesy (CJDL) (Guest)	6/27/23, 5:53:23 PM	6/27/23, 7:23:27 PM
Steve Peterson	6/27/23, 5:55:28 PM	6/27/23, 7:09:54 PM
Steve Peterson (Guest)	6/27/23, 5:55:45 PM	6/27/23, 7:09:46 PM
Jonathon Graham - Tillsonburg (Guest)	6/27/23, 5:57:00 PM	6/27/23, 6:49:34 PM
Dave Piggott	6/27/23, 5:57:04 PM	6/27/23, 7:22:26 PM
Tom Lightfoot	6/27/23, 5:57:17 PM	6/27/23, 7:21:16 PM
Kim piggott	6/27/23, 5:57:59 PM	6/27/23, 6:06:37 PM
John and Kathy Lafferty (Guest)	6/27/23, 5:58:32 PM	6/27/23, 6:58:01 PM
David Simpson (he/him) (Guest)	6/27/23, 5:59:21 PM	6/27/23, 6:03:14 PM
Justin Diotte (Guest)	6/27/23, 6:00:45 PM	6/27/23, 7:20:50 PM
MN (Guest)	6/27/23, 6:01:08 PM	6/27/23, 6:01:51 PM
Tommy (Guest)	6/27/23, 6:01:12 PM	6/27/23, 7:21:09 PM
Matthew Jauernig (Guest)	6/27/23, 6:01:19 PM	6/27/23, 7:20:45 PM
Phil Sheridan, SCS Consulting Group (Guest)	6/27/23, 6:01:28 PM	6/27/23, 7:20:49 PM
Renato Pullia	6/27/23, 6:01:31 PM	6/27/23, 6:11:45 PM
Rob Osmond (Guest)	6/27/23, 6:01:43 PM	6/27/23, 7:20:54 PM
Matt Ninomiya (Guest)	6/27/23, 6:02:12 PM	6/27/23, 7:21:06 PM
Mark Schadenberg	6/27/23, 6:02:15 PM	6/27/23, 7:20:58 PM
Heather St. Clair (Guest)	6/27/23, 6:02:25 PM	6/27/23, 7:20:49 PM
Dustin (Guest)	6/27/23, 6:03:07 PM	6/27/23, 7:22:48 PM
David Simpson (He/Him)	6/27/23, 6:04:05 PM	6/27/23, 6:05:14 PM
Councillor Phi Schaefer (Guest)	6/27/23, 6:04:38 PM	6/27/23, 7:27:03 PM
David Simpson (he/him) (Guest)	6/27/23, 6:05:40 PM	6/27/23, 6:10:18 PM
Guest	6/27/23, 6:09:10 PM	6/27/23, 6:10:18 PM

Name	First Join	Last Leave
Jenna	6/27/23, 6:09:54 PM	6/27/23, 6:53:48 PM
Guest	6/27/23, 6:10:50 PM	6/27/23, 7:21:07 PM
Renato Pullia	6/27/23, 6:11:40 PM	6/27/23, 7:20:59 PM
David Simpson (he/him) (Guest)	6/27/23, 6:16:16 PM	6/27/23, 7:20:45 PM
Kyle Pratt (Guest)	6/27/23, 6:23:36 PM	6/27/23, 7:22:11 PM
Grueneis, Karl	6/27/23, 7:11:02 PM	6/27/23, 7:23:50 PM

Questions Asked During PCC# 2

Deb Gilvesy

Q – As everything hinges on population, from where did Oxford 2024 W/WW MP study derive population projections? Numbers look a little low

A- MP numbers for population growth were provided by the Oxford County Planning Department based on their assessment during the MP process. As the MP is to be redone every 5 years, the population projections and the servicing demand arising from it can be recalculated at this time – John Tyrrell

Mark Schadenberg

Q1 - Which communities have a lagoon for waste water? Innerkip? Mt Elgin ?

A1 - Lagoons are found in Norwich, Plattsville, Tavistock. Innerkip wastewater goes to Woodstock WWTP – Don Ford

Q2 - If Innerkip needs expanded line to Woodstock treatment plant, why not discontinue new home construction in Innerkip to save farmland in East Zorra Tavistock. Woodstock is the residential hub, not Innerkip.

A2- Additional servicing to Innerkip will be along road allowances and current County owned lands – David Simpson
Any impacted lands from development in Innerkip has been or would be approved by Council as it is a growth area – John Tyrrell

Phil Sheridan

Q – When will the presentation be posted?

A – As soon as possible, hopefully tomorrow – Don Ford

r:\2021\216063 - oxford-w and ww master plan\07 ea, planning, studies\06 class ea\public consultation\pcc\pcc 2 jun 23\rva 2023 memo pcc 2 questions.docx

APPENDIX 2.4.4
SUO Lifetime Summary



Summary Report

12 June 2020 - 03 July 2023

Speak Up, Oxford!

PROJECTS SELECTED: 1

Water and Wastewater Master Plan

FULL LIST AT THE END OF THE REPORT



Visitors Summary



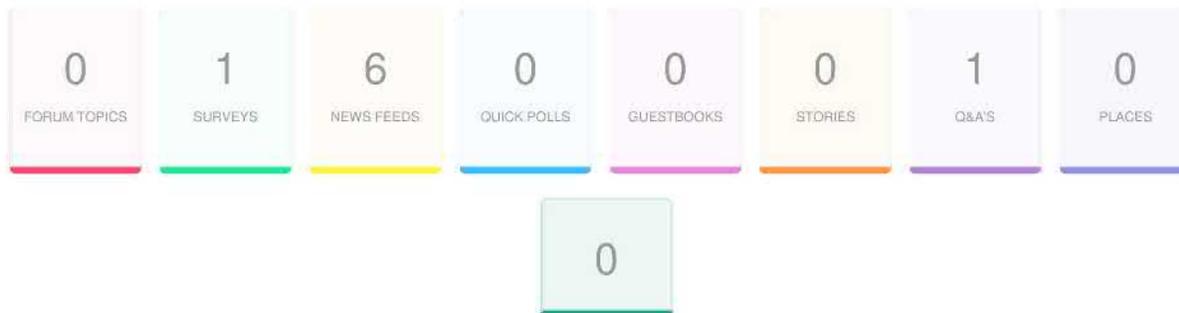
Highlights



PARTICIPANT SUMMARY

<p>ENGAGED</p>	<p>94 ENGAGED PARTICIPANTS</p>	<p>(%)</p>																								
<p>INFORMED</p>	<table border="1"> <thead> <tr> <th></th> <th>Registered</th> <th>Unverified</th> <th>Anonymous</th> </tr> </thead> <tbody> <tr> <td>Contributed on Forums</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Participated in Surveys</td> <td>3</td> <td>76</td> <td>0</td> </tr> <tr> <td>Contributed to Newsfeeds</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Participated in Quick Polls</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Posted on Guestbooks</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>		Registered	Unverified	Anonymous	Contributed on Forums	0	0	0	Participated in Surveys	3	76	0	Contributed to Newsfeeds	0	0	0	Participated in Quick Polls	0	0	0	Posted on Guestbooks	0	0	0	<p>Water and Wastewater Mas... 94 (5.8%)</p>
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<p>AWARE</p>	<table border="1"> <tbody> <tr> <td>Contributed to Stories</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Asked Questions</td> <td>4</td> <td>11</td> <td>0</td> </tr> <tr> <td>Placed Pins on Places</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Contributed to Ideas</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	Contributed to Stories	0	0	0	Asked Questions	4	11	0	Placed Pins on Places	0	0	0	Contributed to Ideas	0	0	0	<p>* Calculated as a percentage of total visits to the Project</p>								
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<p>* A single engaged participant can perform multiple actions</p>																										
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<p>ENGAGED</p>	<p>1,625 AWARE PARTICIPANTS</p>	<p></p>																								
<p>INFORMED</p>	<table border="1"> <thead> <tr> <th></th> <th>Participants</th> </tr> </thead> <tbody> <tr> <td>Visited at least one Page</td> <td>1,625</td> </tr> </tbody> </table>		Participants	Visited at least one Page	1,625	<p>Water and Wastewater Mas... 1,625</p>																				
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<p>AWARE</p>	<p>* Aware user could have also performed an Informed or Engaged Action</p>	<p>* Total list of unique visitors to the project</p>																								

ENGAGEMENT TOOLS SUMMARY



SURVEYS SUMMARY	
1	Surveys
79	Contributors
79	Submissions

TOP 3 SURVEYS BASED ON CONTRIBUTORS
<p>79</p> <p>Contributors to</p> <p>Feedback form</p>

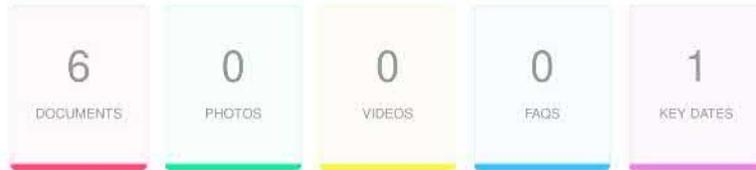
NEWSFEEDS SUMMARY	
6	NewsFeed
8	Visits
8	Visitors

TOP 3 NEWSFEEDS BASED ON VISITORS		
<p>3</p> <p>Visitors to</p> <p>Public Consultation Centre #1</p>	<p>3</p> <p>Visitors to</p> <p>Feedback from Public Consultation Centre #1</p>	<p>2</p> <p>Visitors to</p> <p>Have your say</p>

Q & A SUMMARY	
1	Q&As
15	Contributors
15	Questions

TOP 3 Q & A BASED ON CONTRIBUTORS
<p>15</p> <p>Contributors to</p> <p>Ask a question</p>

INFORMATION WIDGET SUMMARY



DOCUMENTS	
6	Documents
320	Visitors
583	Downloads

TOP 3 DOCUMENTS BASED ON DOWNLOADS		
164 Downloads	181 Downloads	111 Downloads
Presentation: Public Consultation Centre #1 (Sept 29)	Notice of study commencement: Oxford County Water and Wastewater	Notice of Public Consultation Centre #1: Oxford County Water and Wastewater Master

KEY DATES	
1	Key Dates
57	Visitors
74	Views

TOP 3 KEY DATES BASED ON VIEWS
74 Views
Water and Wastewater Master Plan

TRAFFIC SOURCES OVERVIEW

REFERRER URL	Visits
www.google.com	258
m.facebook.com	197
lm.facebook.com	98
l.facebook.com	97
www.oxfordcounty.ca	72
m.youtube.com	39
www.google.ca	29
www.heartfm.ca	22
youtube.com	16
t.co	14
www.bing.com	11
android-app	5
www.youtube.com	5
googleads.g.doubleclick.net	4
intranet4.oxfordcounty.local	2

SELECTED PROJECTS - FULL LIST

PROJECT TITLE	AWARE	INFORMED	ENGAGED
Water and Wastewater Master Plan	1625	502	94