

Administration

Office of the Regional Clerk

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May 30, 2023

CL 8-2023, May 18, 2023

PEDC 5-2023, May 10, 2023

PDS 12-2023, May 10, 2023

LOCAL AREA MUNICIPALITIES

SENT ELECTRONICALLY

Combined Sewer Overflow (CSO) Control and Wet Weather Management (WWM)
Program – 2023 Funding Recommendations

PDS 12-2023

Regional Council, at its meeting held on May 18, 2023, passed the following recommendation of its Planning and Economic Development Committee:

That Report PDS 12-2023, dated May 10, 2023, respecting Combined Sewer Overflow (CSO) Control and Wet Weather Management (WWM) Program – 2023 Funding Recommendations, **BE RECEIVED** and the following recommendations **BE APPROVED**:

1. That staff **PREPARE** and **EXECUTE** the respective partnership funding agreements with the Local Area Municipalities for qualifying projects to reflect the terms and conditions set out in Appendix 2 and Appendix 3 of Report PDS 12-2023; and
2. That Local Area Municipalities **BE ADVISED** of the results of Regional funding support, as outlined in Appendix 1 of PDS 12-2023.

A copy of PDS 12-2023 is enclosed for your reference.

Yours truly,



Ann-Marie Norio
Regional Clerk

js

CLK-C 2023-062

Combined Sewer Overflow (CSO) Control and Wet Weather Management (WWM)
Program – 2023 Funding Recommendations

May 30, 2023

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cc: I. Stetic, Manager, Water-Wastewater Infrastructure Planning
M. Sergi, Commissioner, Growth, Strategy and Economic Development
N. Oakes, Executive Assistant to the Commissioner, Growth, Strategy and Economic Development

Subject: Combined Sewer Overflow (CSO) Control and Wet Weather Management (WWM) Program – 2023 Funding Recommendations

Report to: Planning and Economic Development Committee

Report date: Wednesday, May 10, 2023

Recommendations

1. That staff **PREPARE** and **EXECUTE** the respective partnership funding agreements with the Local Area Municipalities for qualifying projects to reflect the terms and conditions set out in Appendix 2 and Appendix 3 of Report PDS 12-2023; and
2. That Local Area Municipalities **BE ADVISED** of the results of Regional funding support, as outlined in Appendix 1 of PDS 12-2023.

Key Facts

- The purpose of this report is to provide background information for the 2023 LAM projects under the Combined Sewer Overflow (CSO) Control / Wet Weather Management (WWM) Program;
- The CSO Control Cost Share Program has been in place since 2007 and is intended to facilitate shared funding with the Local Area Municipalities (LAM) to help mitigate the impacts of wet weather events on the Region-wide sanitary system and the environment. As a result, the Region benefits from this program by gaining capacity at regionally owned trunks, sewage pump stations and wastewater treatment plants, which in return, could be used for growth without oversizing Regional infrastructure;
- Representatives of the CSO/WWM Working Group developed administrative procedures and criteria to support and evaluate project submissions by LAM in accordance with the guiding principles;
- The Region supports this approach and has included funding annually in its budget. For 2023, an amount of \$4,000,000 was budgeted in the Region's Wastewater Operating Budget;
- Twenty-nine (29) eligible projects were submitted by LAMs for 2023; however, the total requested funding is more than the approved program budget of \$4,000,000 by \$1,043,250 for 2023, demonstrating the high demand to address wet weather issues in sanitary collection systems.

Financial Considerations

A gross budget of \$4,000,000 has been approved as part of the 2023 Wastewater Operating Budget for the CSO Control Cost Share program. Funding for this program is partially provided through Development Charges (50%).

The 29 eligible projects considered for funding under the 2023 CSO Control Program totaled \$5,043,250. As the total requested amount is more than the approved program budget of \$4,000,000 by \$1,043,250 for 2023, six project applications will have to be declined for funding and one application will receive partial funding. Appendix 1 presents 22 municipal projects recommended for funding in full, one municipal project recommended for partial funding, and six unfunded projects.

Prior to awarding the 2023 amounts, the Region currently has \$11.4 million in outstanding commitments to 11 municipalities for approved but unspent CSO projects as per 2022 Year-End shown in Appendix 4.

Analysis

The CSO Control Cost Share program is intended to facilitate shared funding with LAM to help mitigate the impacts of wet weather events on the Region-wide sanitary system and the environment. These CSO projects help reduce potential basement flooding, overflows to the environment, and provide capacity for growth within existing infrastructure by removing excessive water entering the sanitary system. The Region benefits from this program by gaining capacity at regionally owned trunks, sewage pump stations and wastewater treatment plants, which in return, could be used for growth without oversizing Regional infrastructure. The CSO Control Working Group is made up of at least one LAM representative with urban servicing and is lead by Regional staff. The evaluation matrix is reviewed by the CSO Working Group for enhancements annually. Appendix 2 shows the distribution for the CSO Control Program funding options for project types.

Twenty-nine (29) applications were received from 11 LAMs. Three applications from Fort Erie, two from Grimsby, two from Lincoln, five from Niagara Falls, two from NOTL, two from Pelham, three from Port Colborne, one from St. Catharines, two from Thorold, six from Welland, and one from West Lincoln.

Regional staff reviewed and evaluated all 29 eligible projects and incorporated 21 of them into the final recommendation list presented in Appendix 1. Projects were awarded based on the program evaluation matrix following the CSO Control and Wet Weather Management Policy as approved by Council.

The requested funding for all eligible projects totaled \$5,043,250. The total requested funding is \$1,043,250 more than the 2023 approved budget of \$4,000,000.

Similar to other jurisdictions across Ontario, wet weather flows continue to negatively impact sanitary infrastructure resulting in potential basement flooding, overflows to the environment, and reduced capacity for future growth. The removal of wet weather flow and inflow and infiltration reduction is important work that needs on-going focus and support over the long term to be successful.

Alternatives Reviewed

No alternatives were reviewed as the approved budget was fully utilized.

Relationship to Council Strategic Priorities

This report supports the Responsible Growth and Infrastructure Planning priority in establishing objectives of Environmental Sustainability & Stewardship and Maintenance of Existing Infrastructure.

Other Pertinent Reports

- PW4.S06.0, September 2, 2014 – Combined Sewer Overflow (CSO) Control & Wet Weather Management Policy

Prepared by:

Ilija Stetic, B.Sc., PMP, CET
Manager W-WW Infrastructure Planning
Planning and Economic Development

Recommended by:

Michelle Sergi, MCIP, RPP
Commissioner
Planning and Economic Development

Submitted by:

Ron Tripp, P.Eng.

Chief Administrative Officer

This report was prepared in consultation with Phill Lambert, P. Eng., Director, Infrastructure Planning and Engineering, Joseph Tonellato, P. Eng., Director of Water and Wastewater, Susan White, Program Financial Specialist, and reviewed by Renee Muzzell, Manager Program Financial Support.

Appendices

Appendix 1	Recommended 2023 CSO Control Program Funding Requests
Appendix 2	Funding Options
Appendix 3	CSO Control / WWM Policy Funding Conditions
Appendix 4	Summary of CSO Project Remaining Budget Encumbrance by Municipality by 2022 Year-End

Appendix 1: Recommended 2023 CSO Control Program Funding Requests

Eligible Recommended Projects with Funding

Municipality	Project Description	Category	%	Project Cost	Regional Share	Recommended Regional Funding
Fort Erie	2023 Sanitary Sewer CCTV Inspection	2	50%	\$ 205,000	\$ 102,500	\$ 102,500
Fort Erie	Flow Monitoring Program, Pre/Post (FLOMON)	2	60%	\$ 60,000	\$ 36,000	\$ 36,000
Fort Erie	Bowen Road Watermain Replacement (BOWW19)	5	30%	\$ 301,000	\$ 90,300	\$ 90,300
Grimsby	Sewer I&I Reduction Study - Drainage Area 5 & 7	2	50%	\$ 25,000	\$ 12,500	\$ 12,500
Grimsby	Wastewater I&I Reduction - Drainage Area 5&7	5	30%	\$ 500,000	\$ 150,000	\$ 150,000
Lincoln	William Street Neighbourhood Sanitary Sewer Replacement	5	30%	\$ 210,000	\$ 63,000	\$ 63,000
Lincoln	Targeted I/I Investigation - Beamsville Ontario St Catchment	2	50%	\$ 150,000	\$ 75,000	\$ 75,000
Niagara Falls	Dorchester Rd. SS - Lundy's Lane to Royal Manor Dr. Construction	1	40%	\$ 2,000,000	\$ 800,000	\$ 800,000
Niagara Falls	Hodgson Subdivision Sewer Separation Strategy Phase 1 Design	1	40%	\$ 160,000	\$ 64,000	\$ 64,000
Niagara Falls	Armoury Street Sewer Separation	1	40%	\$ 649,576	\$ 259,830	\$ 259,830
Niagara Falls	Ferry Street Reconstruction	1	40%	\$ 600,000	\$ 240,000	\$ 240,000
NOTL	CSO Flow Monitoring (Post Repair) - (Phase 5- Mississauga Beach)	2	60%	\$ 50,000	\$ 30,000	\$ 30,000
NOTL	CSO Flow Monitoring (Post Repair) - Dorchester North	2	60%	\$ 50,000	\$ 30,000	\$ 30,000
Pelham	Church Street Sanitary Sewer Planned Replacements	5	30%	\$ 4,000,000	\$ 1,200,000	\$ 662,992
Port Colborne	Omer Sanitary Pipe Capacity Investigation	2	50%	\$ 150,000	\$ 75,000	\$ 75,000
Port Colborne	Clarke Area Inflow and Infiltration Program - Part 2	3	50%/60%	\$ 250,000	\$ 145,000	\$ 145,000
St. Catharines	Spring Garden Creek Trunk Sewer Lining	1	30%	\$ 1,484,954	\$ 445,486	\$ 445,486
Welland	Fitch Street Area I/I Reduction Project	2	50%	\$ 75,000	\$ 37,500	\$ 37,500
Welland	2023 Flow Monitoring Project	2	50%	\$ 292,440	\$ 146,220	\$ 146,220

Municipality	Project Description	Category	%	Project Cost	Regional Share	Recommended Regional Funding
Welland	2023 Private Side Disconnection Project	3	50%/60%	\$ 75,000	\$ 41,250	\$ 41,250
Welland	Ontario Road Trunk Sanitary Sewer	5	30%	\$ 100,000	\$ 30,000	\$ 30,000
Welland	West Main Area Phase 1	5	30%	\$ 1,444,739	\$ 433,422	\$ 433,422
West Lincoln	Post Sewer Rehabilitation Flow Monitoring	2	60%	\$ 50,000	\$ 30,000	\$ 30,000
Total Available Funding						\$ 4,000,000
Eligible Unfunded Projects						
Municipality	Project Description	Category	%	Project Cost	Regional Share	
Niagara Falls	2023 Sanitary Sewer Rehabilitation Project	5	30%	\$ 2,000,000	\$ 600,000	
Pelham	Sanitary Capital Repair Program	5	30%	\$ 140,000	\$ 42,000	
Port Colborne	Cured in Place Pipe Sanitary Sewer Lining	5	30%	\$ 500,000	\$ 150,000	
Thorold	Private Sanitary Sewer	3	60%	\$ 150,000	\$ 90,000	
Thorold	Sanitary Sewer Spot Repair Project (Trenchless)	5	30%	\$ 65,000	\$ 19,500	
Welland	Sanitary Sewer Spot Repair	5	30%	\$ 472,500	\$ 141,750	
Total Eligible Projects				\$ 16,210,209	\$ 1,043,250	

Note 1: Funding % share is dependent on specific project component and related work. Appendix 3 has project cost share split details

Note 2: Pelham received partial funding up to the limit of the 2023 budget amount.

CSO Control Program Funding Options

Project Category	Project Types	Funding %	Region %	Municipality %
1.	Sewer Separation	40%		
Work Examples	Disconnection of road drainage		40	60
	Disconnection of private		60	40
	Disconnection of road, previous disconnection of private or opposite		50	50
2.	Studies	15%		
Work Examples	PPCP as per the PPCP guide		50	50
	I&I and extraneous flow investigation including cctv/smoke dye testing ¹		50	50
	Mandatory flow monitoring - pre and post		60	40
	Investigative work on municipal/private side		50	50
	Public education/water conservation and efficiency measures		50	50
	Sewer use by-law development/update and municipal policies		50	50
3.	Source Control - Private Side	20%		
Disconnection of roof leaders to be done by homeowners/municipalities as a prerequisite for other works on the private side.				
Work Examples	Disconnection of roof leaders		60	40
	Disconnection of weeping tiles from sanitary including applicable works		60	40
	Disconnection of private sump pumps		60	40
	Backflow preventer installation on sanitary		40	60
4.	Conveyance and Flow Control/Storage	15%		
Work Examples	Real time control for detention		60	40
	In-line flow controllers design and construction (e.g. weirs)		60	40
	Off-line conveyance and pumping design and construction		60	40
	In-line/ off-line storage		40	60
5.	Repair/ Rehabilitation/ Replacement of Sewers	10%		
Estimated ≥50% flow reduction during WW events				
Work Examples	Repair of sanitary/ manholes - gel sealing, spot repairs		30	70
	Spot repair lining		30	70
	Full length liner		30	70

Note 1: CCTV inspection - only site/project specific. Regular city wide inspections should be part of municipal O&M.

CSO Control Program Terms and Funding Conditions

The terms and conditions under which funding will be offered to the successful applications, include the following:	
1	<i>Amount of Funding, Studies</i> - The Region shall contribute 50% of total study costs for the PPCP and I&I studies, and 60% for the Pre and Post Flow monitoring projects provided the Region participates on a committee overseeing the study and the study covers the entire area tributary to the Wastewater Treatment Plant(s) and includes both local and Regional infrastructure.
2	<i>Amount of Funding, Design & Construction projects</i> – The Region shall contribute defined percentage of the cost based on the Funding Options matrix, provided that; the facility or measure is supported by a recommendation from a current CSO study, life cycle cost comparisons of alternative solutions were undertaken and the Region agrees with the cost comparisons, the Region agrees with the ‘best overall solution’, and the Region participates on a committee overseeing the design.
3	<i>Third Party Funding</i> – The Region’s funding shall be net of any third party funding approved for the project. If third party funding is obtained after Regional funding approval, the amount of Regional funding will be adjusted to be net of any third party funding. Payment of the funding to the Area Municipality shall be based on actual expenditures incurred up to the maximum amount approved by Regional Council based on the budget submitted with the application.
4	<i>Project Lead Studies</i> – Lead by either the Area Municipality or the Region based on a mutual agreement prior to initiation of study.
5	<i>Project Lead Design & Construction</i> – A project located in the Area Municipal wastewater system shall be managed by the Area Municipality while a project in the Regional wastewater system shall be managed by the Region. On a case-by-case basis the Region may consider managing a project in the local system, if requested by the Area Municipality.
6	<i>Ownership and Operation of Assets</i> – The ownership and operation of all new and existing assets shall remain the responsibility of the current owner. The Area Municipality, on a case by case basis, may request the Region to operate and maintain an existing or new CSO control facility on behalf of the Area Municipality on a direct charge back basis.
7	<i>Follow up Flow Monitoring</i> – On a case-by-case basis, the Region may include a condition or approval of funding that requires follow up flow monitoring to assess project’s effectiveness.
8	<i>Expiry of Funding</i> – Funding of a project by the Region may expire if the local Area Municipality does not invoice the Region within three (3) years of the date of funding approval by Regional Council. Also, if an Area Municipality decides not to proceed with a project, the Region may revoke funding. The Region may also withdraw funding for future phases if a project does not proceed on a continuous basis toward completion.
9	<i>Indemnity</i> – The Region, or its directors, officers, employees, agents or consultants will not be held liable as a result of providing funding for any project.
10	<i>Regional Recognition</i> – The Area Municipality is to ensure that the Region is to be acknowledged in all advertising and publicity related to the project for which funding was provided.

11	<i>Project Deliverables</i> – The Region shall receive copies of all project deliverables, including, but not limited to, reports, flow monitoring data, hydraulic modelling files, GIS layers/data, and technical memorandums.
12	<i>Funding Agreement</i> - A letter formalizing the funding in accordance with the Region's CSO Funding Policy will be issued to the Area Municipality for signature and used as the agreement to the terms and conditions of the funding.

Appendix 4: Summary of CSO Project Remaining Budget Encumbrance by Municipality by 2022 Year-End

Municipality	Year							
	Pre-2017	2017	2018	2019	2020	2021	2022	Total
Fort Erie			266,589	311,232	100,495	680,857	681,500	2,040,673
Grimsby	528,293				217,401	43,393	125,000	914,087
Lincoln		2,100	190,259	316,130		542,370		1,050,859
Niagara Falls		163,314	1,663	251,422	890,651	774,716	722,530	2,804,296
Niagara-on-the-Lake			85,292	30,000	51,594	79,356	100,000	346,242
Pelham	5,173		50,000					55,173
Port Colborne						366,948	205,000	571,948
St. Catharines	63,374	124,431	8,000	201,512	222,012	307,000	144,100	1,070,430
Thorold			299,465					299,465
Welland			408,824	262,689	296,400	722,185	508,070	2,198,168
West Lincoln					28,026	60,000		88,026
Total	596,841	289,845	1,310,092	1,372,986	1,806,579	3,576,824	2,486,200	11,439,367