



**ENGINEERING AND OPERATIONS DEPARTMENT
ENGINEERING DIVISION**

Report Number: 2016-09

Date: January 25, 2016

**SUBJECT: UPDATE REPORT ON THE NICKEL AND OMER PUMPING STATION
CATCHMENT AREA EXTRANEIOUS FLOW REDUCTION PROGRAMS**

1) PURPOSE:

This report is prepared by Jim Hupponen, Manager of Engineering Services under the direction of Ron Hanson, Director of Engineering and Operations to update Council on the progress and status of the Nickel and Omer Pumping Station Area Extraneous Flow Reduction Programs.

2) HISTORY, BACKGROUND, COUNCIL POLICY, PRACTICES

The City has been actively engaged in the identification and remediation of extraneous flows since the 1970s, when the first sections of the 1929 vitrified clay sanitary sewer system were replaced. Today, that system consists of PVC pipe materials that are substantially superior to previous materials such as asbestos cement. Emphasis on rehabilitation and remediation in the past has focused primarily on the infrastructure located within the road allowances, with few attempts to rectify sources of extraneous flow from the private sector.

In conjunction with the Region of Niagara, the Port Colborne Pollution Control and Infrastructure Study was completed in 2006. The study identified existing Combined Sewer Overflow (CSO) locations and sources of extraneous flow contributing to the problem. As a result of the study, recommendations for source control in key areas were identified. As detailed in the Strategic Planning sessions and at Budget deliberations, Staff presented a proposed Pilot Program for the Area Sewershed, with an initial allocation of \$200,000 for 2008. A successful application under the Region's CSO Plan matched those funds with an additional \$200,000 for the project.

The results of source control measures will be lower treatment costs to the Municipality, reduced capital costs to the Region for pumping station, treatment plant upgrades and forcemain, gravity sewer replacements/upgrades and additional capacity for future development connecting to the system.

Redirection of any sources of storm water from the sanitary sewer system should be encouraged, since the payback in treatment costs is immediate. A source of sewer surcharging is removed, which could result in reduced instances of basement flooding.

By-law No. 5228/134/08 was adopted by Council in December 2008. The by-law prohibits any form of storm water connection to the sanitary sewer system and provides the means to disconnect such connections. While the owner of the building is responsible for the cost of disconnection of the sources of storm water, section 4.8.2 provides for a reimbursement program, subject to budget and Council concurrence, which would

provide financial incentives to assist in the work. To date, it has not been necessary to levy fines under this by-law.

As reported to Council in September of 2014 under Engineering and Operations Reports #2014-29 and #2014-30, Staff was directed to defer the projects and request the Region of Niagara to reassign the remaining funding for both the Nickel and Omer funding programs. These programs were funded 50% by the Region through the CSO funding program.

3) STAFF COMMENTS AND DISCUSSIONS

In early 2015, Staff sent a letter to the Region requesting the reassignment of the remaining funds in the Nickel and Omer Area programs in order to utilize this funding for additional projects within those catchment areas. Staff has received confirmation from the Region that this funding cannot be reassigned to other projects within these areas. The reasoning behind this is because the application for these programs that was approved by Regional Council was specific to study type programs in these areas.

The studies in the Nickel and Omer Areas were completed in 2014 and no further studies are required in these areas at this time. Since the original application to the Region for CSO funds, the funding structure has changed allowing for additional projects not previously supported under the CSO program to be funded.

The 2012 funding application for the Region's CSO fund was estimated to be \$406,000 in matching funds. The City has expended approximately \$128,829 of the available CSO funds from the Region. The work completed under this funding application was limited to the study of CSOs in the Nickel Area. During the study in the Nickel Area it was determined that the major source of extraneous flows can be attributed to the private sump pump connections. At that time it was determined by Staff, in conjunction with the Consultant, that no further studying of the area was required and that it would be best to determine a new course of action in order to minimize or eliminate these sources.

The Omer Area consists of three separate CSO funding applications from 2009, 2010 and 2011 which amount to \$610,000 in funding from the Region. The 2009 and 2010 Study consisted of the analysis of the sanitary sewer along with the proposed rehabilitation of the Barrick Road sanitary sewer whereas the 2011 study focused on the review of the storm sewers in this area. During the studies, it was determined that a much more cost effective repair could be completed on the Barrick Road sewer which resulted in significant savings to the project. The overall amount of CSO funding expended from the Region for the Omer Area equals \$336,096 which was used for both studies and a repair to the Barrick Road sewer which also contributed to some savings for the sanitary treatment costs.

The amount of funding from the Region remaining for these programs is \$277,170.58 for the Nickel Area and \$273,903.71 for the Omer Area.

As Council was advised previously, the largest contributor to extraneous flows come from private sump pumps connected to the sanitary system. In both the Nickel and Omer Areas, storm sewers are required to be reconstructed or designed in order to allow for the disconnections of the sump pumps from the sanitary sewer. As Council will recall in Engineering and Operations Report #2015-217, Staff proposed a preliminary funding strategy that would allow for the funding of storm sewers. If this storm sewer fee was to

be approved and implemented, the City could possibly apply for funds under the Region's CSO program to obtain additional funding to lessen the contribution from the City to construct storm sewers. The CSO funding program would also allow for the funding of the private property sump pump disconnections from the sanitary as previously this was not included in the CSO program.

It is Staff's recommendation to request the closure of the existing Nickel and Omer Area CSO funding provided by the Region so that those funds can be placed back into the Region's CSO program for future use by the City and other Municipalities. Staff will then be able to prepare applications for future projects that meet the Region's revised CSO funding program requirements.

4) OPTIONS AND FINANCIAL CONSIDERATIONS:

a) Do nothing.

This report is presented as information for Council.

b) Other Options

None.

5) COMPLIANCE WITH STRATEGIC PLAN INITIATIVES

Continue with CSO I&I investigative work with the Region of Niagara to identify sewer infiltration issues and their remediation from private property and City infrastructure. Second Phase of this program will continue during 2011 and Council will receive a report on the findings later this year. (P. 12 Strategic Planning Report 2010)

6) ATTACHMENTS

None.


7) RECOMMENDATION

A. That the Council of the City of Port Colborne receives the Engineering & Operations Report 2016-09 – Update Report on the Nickel and Omer Pumping Station Catchment Area Extraneous Flow Reduction Programs for information;

B. AND THAT the Council of the City of Port Colborne directs Staff to request the Region of Niagara to close the Nickel and Omer CSO Programs.


8) SIGNATURES

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