

STORMWATER MASTER PLAN FOR SMITHVILLE INFILL AND INTENSIFICATION AREAS – EXECUTIVE SUMMARY

SUBMITTED BY WSP E&I CANADA LIMITED

The Township of West Lincoln has initiated a Master Community Plan Study to plan for future growth in the Community of Smithville. This process includes the preparation of a Stormwater Master Plan for the existing urban centre within the Community of Smithville, as a companion study, to provide guidance and direction for the stormwater management requirements associated with the infill, intensification, and redevelopment anticipated within the existing urban centre within the Community of Smithville.

The existing stormwater system within the urban centre of Smithville is comprised of storm pipes (minor system) and street, creeks and ditches (major system). The future development and increased densities within the core of the municipality are anticipated to have limited effect to the overall system, due to the relatively minor differences in the impervious coverage under future conditions compared to existing conditions. The areas along St Catharine Street were identified as being impacted under future land use conditions, due to the extent of land available for infill development in this area. Stormwater management requirements for all future infill and redevelopment are to be determined on a case-by-case basis and in consultation with the Township. For the St. Catherine Street sewershed, opportunity exists to replace two sections of pipe to provide greater capacity of the minor system at this location and accommodate the increased flow from the future infill and intensification within this sewershed. The ultimate acceptance of this alternative is subject to approval from the Township and Region and supported by further study and analysis.

It is recognized that the climate patterns have changed over the past decades. As a result, it is generally accepted that the frequency and intensity of the storm events would increase and extreme events would be more frequently seen. In combination with the future development and increased impervious coverages, the capacity of the storm infrastructure would potentially be reduced. The conclusions presented above regarding the anticipated impact of future development to the existing sewer network would be anticipated to be the same if comparing existing and future land use conditions under a climate change scenario. Nevertheless, it is recognized that improvements to the storm drainage system may be required as a result of climate change.

In addition to the foregoing, it is recommended that all future infill, intensification, and redevelopment within the existing urban centre of Smithville incorporate measures to provide stormwater quality control, erosion control, and reduce runoff volume. These requirements may be addressed through the implementation of Low Impact Development Best Management Practices (LID BMPs) within the future development area and tailored to the specific conditions of the development itself.

It is further recommended that the foregoing findings be verified as part of the detailed design submissions for the respective development parcels within the existing urban centre of Smithville.