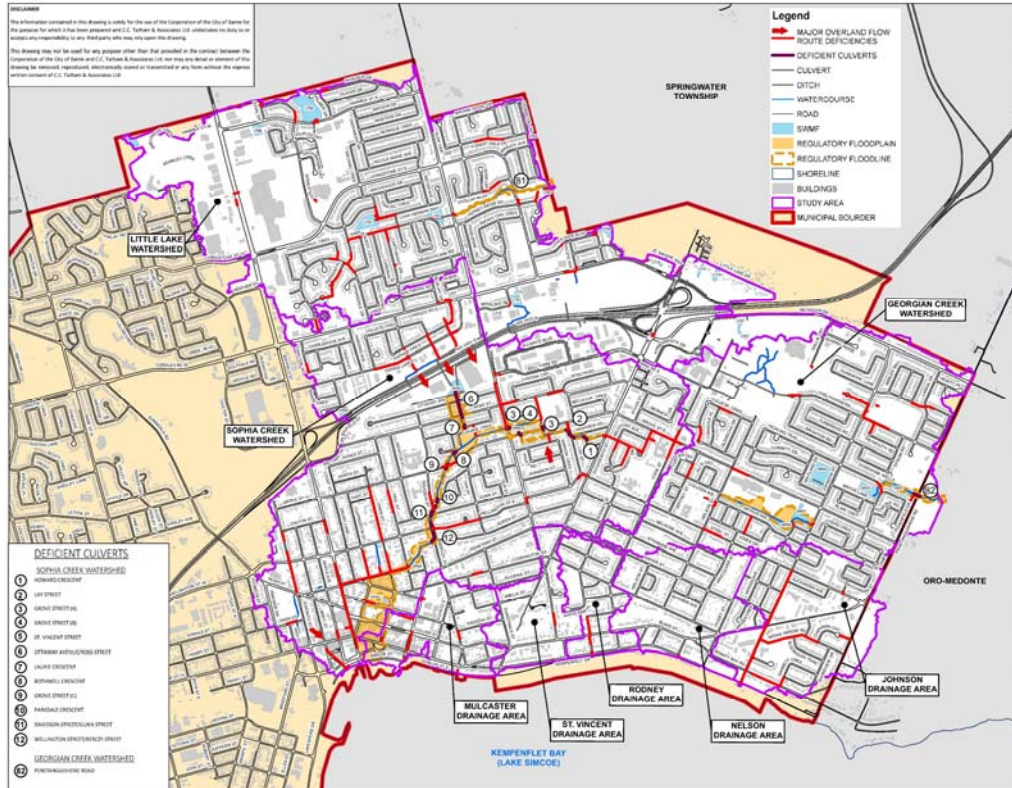


Barrie City-wide Major Drainage System Model

Client: City of Barrie

Year: 2015 - 2016



SERVICES PROVIDED

CCTA was retained by the City of Barrie to prepare a Visual OTTHYMO hydrologic model and HECRAS hydraulic models of Barrie’s major drainage systems for 11 watersheds/watercourses and 12 drainage areas. A Visual OTTHYMO hydrologic model of the major drainage catchments was generated to establish the 100 year design storm and regulatory storm event peak flows at key locations along each major drainage system. The hydrologic model results were compared to the measured streamflows for each monitored watershed and the model parameters adjusted globally to calibrate the hydrologic model to the available creek flow monitoring data.

New hydraulic models of each watercourse within the City were created through GEOHECRAS from a digital elevation model generated from the City’s 2007 Lidar data. The GEOHECRAS models included the significant watercourse crossings, hydraulic structures and overland flow routes city-wide. The major drainage system models were used to identify the deficiencies in the major drainage systems on a graduated scale highlighting the severity of the deficiencies to aid in prioritizing infrastructure improvements in the future.

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