WATER BUDGET AND STRESS ASSESSEMENT

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C1 Conceptual Water Budget

C1.1 Data Resources

Using available data, the TRCA study team accounted for the following elements:

- Climate;
- Geology/Physiography;
- Land Cover;
- Groundwater;
- Surface Water (including reservoirs and major discharges); and
- Water Demand.

The integrated conceptual assessments were undertaken where sufficient continuous data exists:

- Stream Gauge Network stream gauge stations (or HYDAT stations), with sufficient periods of record (generally >5 years of continuous data);
- Active or inactive Environment Canada (Water Survey of Canada);
- The climate data collected over 36 years (1960-1996) from the Oshawa airport and the Oshawa Water Pollution Control Plant; and
- Permitted Takings (2005 MOECC PTTW database).

Available climate data obtained from the Environment Canada stations is available from the ORMGP database shared amongst the Coalition of Authorities on the Moraine, the Regional Municipalities of York Peel and Durham, and the City of Toronto. More recent data was queried online from the Environment Canada website by month and added to the historical data where possible. CLOSPA owned climate station data was obtained from an in-house database, though migration of this data to the ORMGP database is underway.

Because most of the local Environment Canada operated stations were decommissioned over the past several years, the spatial distribution of current climate monitoring stations has been identified as a gap locally in the support of current and future local water budgeting, amongst other studies. TRCA is currently investigating, in partnership, the commissioning of a centrally located comprehensive climate station to supplement the existing network. It is anticipated that this station will also collect evaporation data.

Soil classifications are based on the National Soil Database data model for Detailed Soil Surveys found on the CanSIS website (http://sis.agr.gc.ca/cansis/nsdb/index.html). Where applicable, Ontario soil data items follow the Canadian System of Soil Classification (2nd Edition) 1987, or The Canadian System of Soil Classification (third edition) 1998.

To complement the thermal classification exercise, airborne thermography is used to collect the locations of springs and seepage areas. Potential springs and seeps in the Oak Ridges Moraine were mapped from Aerial Thermography collected between midnight and 3 a.m. on March 1, 1994. Data is extracted from thermal infrared images that show a contrast in surface temperatures on a cold winter night. In addition, warm areas on the thermal image may coincide with portions of streams and potential reaches of significant groundwater discharge locations, noted as potential open water. Data are then digitized from NTS map sheets into vector format. This information will be combined with available discharge mapping to help increase understanding of groundwater discharge.

Stream gauging provides critical information needed for TRCA's flood forecasting and warning program. This information is also important to water budgeting analyses that are necessary for source water protection. Total flows, baseflows, mean daily flows, and mean monthly flows are derived from the raw level data and stream section survey information.

Methods of Analysis

The purpose of water budget analyses is twofold. They aim to identify watershed communities where the sustainability of water supplies is questionable and to highlight key factors that may limit the sustainability, so that appropriate risk management activities can be completed. This analysis is phased or tiered to focus on areas in need, starting at a regional scale and successively focusing in on smaller areas if necessary. The purpose of the analysis is to:

- Estimate the quantity of water flowing through a watershed;
- Understand the pertinent processes and pathways water follows; and
- Assess the sustainability of water supply sources from a quantity perspective.

The first phase is a regional evaluation of all existing water-related data, focusing on various aspects including climate, land use, surface water, groundwater, and water use in each watershed. This phase is known as Conceptual Understanding and forms the basis for subsequent water quantity work.

The Tier 1 Screening Stress Assessment follows the Conceptual Understanding phase (see **Figure C1-1**) and estimates the amount of water that is used currently and will be needed in the future (demand), and compares this to the amount of water available (supply) minus a reserve quantity (demand/ (supply – reserve)). The reserve quantity represents the amount of water needed to sustain activities outside of drinking water, such as for maintaining groundwater discharge, supporting the ecosystem, diluting sewage treatment plant effluent, and maintaining navigation. Those areas where municipal drinking water supplies (demand) exceed a certain threshold will be subject to further investigations, namely a Tier 2 Refined Stress Assessment. All areas of the province are to conduct the Conceptual Understanding and Tier 1 analyses.

The subsequent Tier 2 analysis, should it be necessary, focuses on a smaller area (subwatershed) and will test the assessment results of Tier 1 using newly collected information and more sophisticated technical tools (e.g., numerical groundwater flow models). Should the Tier 2 results suggest that an area may be experiencing stress from a water quantity perspective, the area will then progress to a Tier 3 Risk Assessment for the local area.

The following sections describe the quantitative conceptual understanding undertaken to date by TRCA. The general steps undertaken to generate the estimates are summarized as follows:

- Description of the watershed conditions, including a summary of streamflow, total precipitation from local gauging stations as well as all other hydrological components;
- Estimation of the groundwater discharge component through hydrograph separations (a range of values dependent on methodology selected);
- Available regional geology models are currently used to determine potential areas of discharge. It is assumed that the amount of groundwater discharge equals groundwater recharge where the change in storage is considered to be negligible within the catchment area. Interflow is included in either of runoff or groundwater discharge;
- Comparison of evapotranspiration calculations to estimates provided in existing subwatershed, drainage or development plan proposals for sensitive areas where possible;

- Water budget output comprised of a watershed-based quantification of hydrological components prepared;
- The mean annual potential evapotranspiration (calculated by the Thornthwaite method);
- Calculate water surplus (infiltration and runoff) according to the methodology of Thornthwaite and Mather (1957). This was calculated using monthly mean temperature and precipitation data for 38 climate stations within or near the Region of Durham; and
- Partition the water surplus into runoff and infiltration according to the coefficient method outlined in Ontario Ministry of the Environment (1995) utilizing soil characteristics, topography, and vegetative cover.

There are also a number of water budget investigations being conducted within TRSPA jurisdiction as part of the Regional ORMGP Groundwater Management Study. The methods being utilized include:

- HSP-F Models (Hydrological Simulation Program – Fortran);
- WABAS (Water Balance Analysis System; Clarifica Inc.); and
- MODFLOW, a three-dimensional numerical groundwater flow model (CAMC-Earthfx, 2006).

HSP-F is a numerical model that is capable of simulating hydrologic processes, pollutant generation and transport processes both within catchments and along watercourse networks. This tool has been used to assess the potential benefits of implementing stormwater management practices. The model was calibrated to streamflow, surface water quality and sewer discharge data.

Water budget estimates for both existing and future Official Plan land use scenarios have been conducted by Clarifica Inc. (2002; 2003a; 2003b) using the WABAS methodology (Graham *et al*., 1997) for the Upper Humber River watershed, the Petticoat Creek watershed, and the Duffins Creek watershed. Inputs to the model include:

- Daily precipitation;
- Average or maximum daily temperature;
- Pan evaporation;
- Daily streamflow measurements; and
- Physical basin parameters, including imperviousness, interception abstractions, vegetation, and soil characteristics.

The outputs from the model are time series of:

- Runoff;
- Infiltration;
- Evaporation; and
- Storage conditions within each water reservoir (pervious and impervious interception storage, surficial soil storage and snow pack storage).

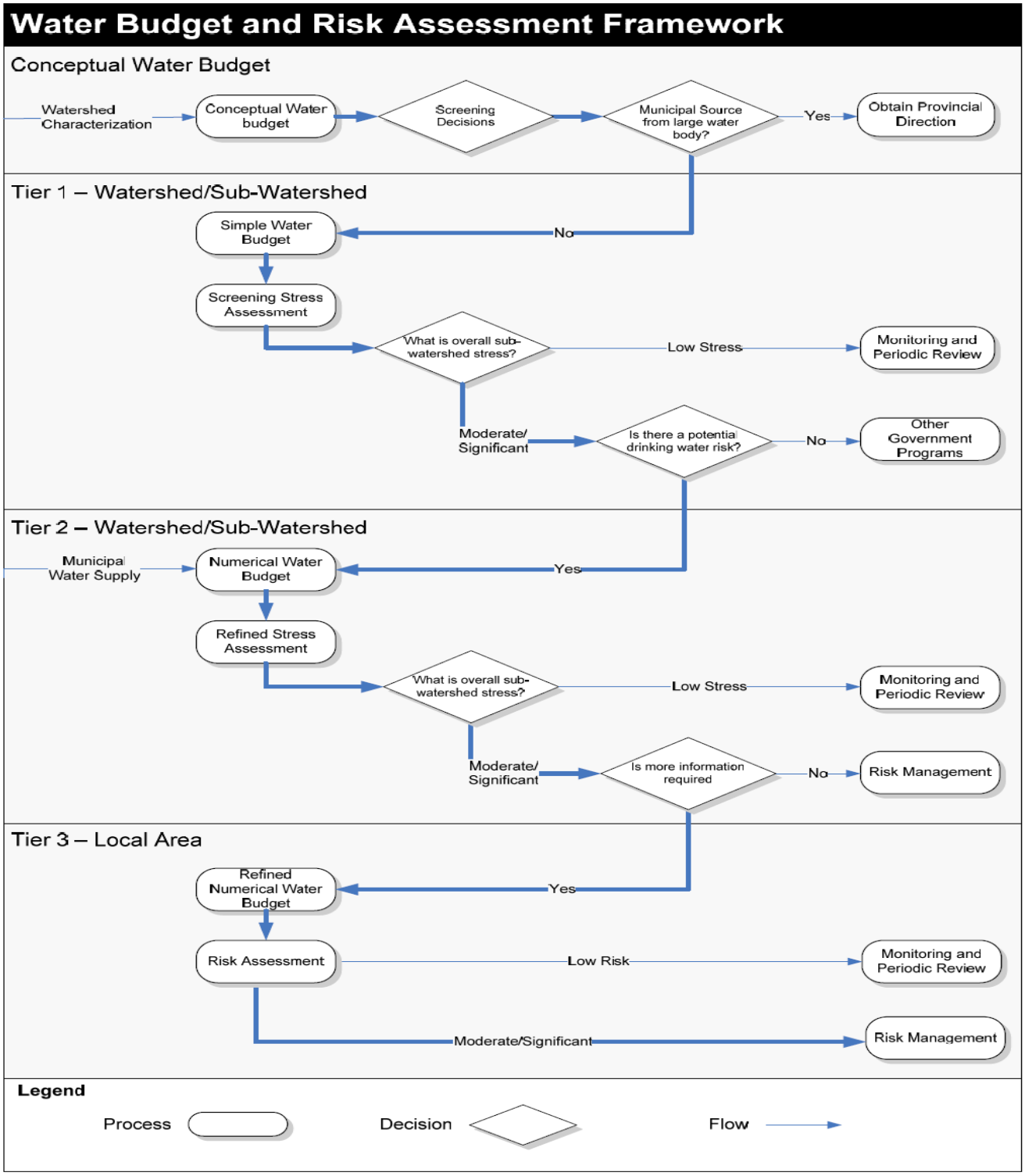

Figure C1-1: Water Budget Process

With respect to the regional numerical groundwater flow model (MODFLOW), which encompasses the study area, initial estimates of applied net recharge on a regional scale were developed and used as

input into the Regional Model developed for the ORMGP Groundwater Management Study (Earthfx, 2004).

Data on land use, climate and soil properties were analyzed to provide the initial estimates of the spatial distribution of groundwater recharge. The primary influence on the recharge distribution was assumed to be the surficial geology as mapped by the GSC. The initial estimates used in the model were adjusted during model calibration. Additional calibration is required as the Core Model is applied over the study area. Recharge rates in the preliminary regional model assessment were highest over the Oak Ridges Moraine due to the sandy soils and hummocky topography (360 mm/a) and lowest in areas covered with lake sediments or organic deposits.

Groundwater discharge estimates from streamflow hydrograph separation basically involve removing the runoff or storm/melt events that form peaks on the hydrograph over relatively short durations (hours to days). The groundwater component is considered to be the more consistent contributor to streamflow with annual fluctuations seen as gradual changes in the hydrograph. The three-dimensional numerical groundwater flow model (MODFLOW) being constructed for the Oak Ridges Moraine is using groundwater discharge estimates from hydrograph separation as one of the flux calibration targets.

From daily average streamflow measurements, the groundwater discharge component is assumed to be approximately equal to a 5-day running average of the 7-day running minimum daily average flow. This method is similar to that utilized by the WABAS method (Clarifica, 2002). However, the WABAS method focuses on the runoff component when calibrating the soil moisture balance model. The WABAS methodology was coupled with the MODFLOW model for a pilot water budget analysis for three watersheds within the Lake Simcoe Region Conservation Authority (Earthfx Inc. and Gerber Geosciences Inc.)

The reader is referred to the Conceptual Water Budget report for the TRSPA jurisdiction prepared by Gartner Lee (2007).

C1.2 Limitations: Data and Methods

Efforts were made throughout the conceptual water budget assessment to identify database management gaps, key analytical gaps and knowledge gaps. These gaps are being addressed where possible in facilitating the move forward activities.

C1.2.1 Database Management

Data management refinement arises when database structures are no longer functional for the required analysis or are not scalable or linkable. In addition, gaps arise when database population or metadata tracking are required. Gaps are addressed recognizing the appropriate scale of the specific study being undertaken. Gaps have been identified for water budgeting purposes and are primarily related to **(Table C1-1**):

- Streamflow stage-flow relationships;
- Hydrologic and water use database structure development; and
- Data loader and ArcHydro development.

Table C1-1: Data Management Needs

Data Management			
WC Deliverable	**Data Set Name or Source**	**Data Problem**	**Comment**
Integrated Hydrologic Database	Hydrologic data	Requires update	ORMGP database data loader requires structure update.
Oak Ridges Moraine Groundwater Program (ORMGP) Hydrogeologic Database	Various data sources	Requires update	Additional monitoring locations/data to be imported.
PTTW Database	MOECC PTTW data and field survey data	Requires update	Internal database to be developed/ populated.

C1.2.2 DATA LIMITATIONS

Data that are undergoing refinement have been identified for water budgeting purposes and are summarized in **Table C1-2**. Identified items are generally consistent with those reported in the characterization report:

- Future development areas;
- Surface water thermal classifications;
- Seepage and springs delineation;
- Serviced/unserviced areas and stormwater management facilities;
- Precipitation distribution, and evaporation; and
- Spatial and temporal distribution of low flows.

While some of these gaps have been dealt with in this revision, (e.g., thermal classification), several more will be addressed during the Tier 1 reporting.

Table C1-2: Data Limitations

Identified Data that is undergoing Refinement (not available at the time of reporting)			
Water Budget and Stress Assessment			
Component	**Data Set Name or Source**	**Data Problem**	**Comment**
Integrated Hydrologic Database	Hydrologic data	Requires update	ORMGP database data loader requires structure update.
Oak Ridges Moraine Groundwater Program (ORMGP) Hydrogeologic Database	Various data sources	Requires update	Additional monitoring locations/data to be imported.
Gauge Database/Installations	TRCA data	Requires update	Internal database to be developed/populated.
Stormwater Management Facilities Map	Upper/lower tier municipalities; Field verification	Partially populated	Data requested.
Precipitation Distr. Map ET Zone Map (draft PRMS map included)	AES (CDCD), TRCA data	Partially populated too sparse	Data gaps to be filled. Maps to be completed.
Seepage and Springs Map	TRCA field program	Partially populated	Field surveying and digitizing required. Historical Thermography mapping is included.
Aggregate Resources Update	MNRF OGDE, MNDM, municipal, field surveys	Partially populated	Existing data requires orthophotography review to verify locations.
Integrated Monitoring Network Site Locations and Data Review	TRCA, Region studies	Requires update	A review of monitoring needs is required. Paucity of climate data to be addressed.
Water Well Information System (WWIS)	MOECC data and field survey data	Requires update	Data requested.
Knowledge Gaps			
Refinement of aquifer characterization and flow system understanding including the orientation of bedrock valley systems and significant area recharge and discharge mapping; Ongoing refinement of the existing surface water understanding (refining the tested PRMS model); Ongoing refinement of the existing groundwater flow understanding (refining the existing Core MODFLOW model); Understanding of the interaction of the surface water and groundwater flow, including wetlands, within the system; Development of acceptable water use targets to protect both the resource and the aquatic ecosystem; Development of methodology and tools to provide potential spills response analysis which will involve overland flow, stream travel and groundwater flow including the unsaturated zone transport; and A more comprehensive understanding of the Q_{DEMAND} components of the water budget, including assessing the permits and actual water use.			

Knowledge gaps identified relate to the analysis and tool adjustment required to quantify the water budget estimates and to understand how the flow system operates. These tools enable predictions of impacts from potential future changes such as climate or land use change. Identified knowledge gaps with respect to the conceptual (to date) include:

- Refinement of aquifer characterization and flow system understanding including the orientation of bedrock valley systems and significant area recharge and discharge mapping;
- Refinement of the existing surface water understanding (refining the tested PRMS model);
- Refinement of the existing groundwater flow understanding (refining the existing Core MODFLOW model);
- Understanding of the interaction of the surface water and groundwater flow, including wetlands, within the system;
- Development of acceptable water use targets to protect both the resource and the aquatic ecosystem; and
- Development of methodology and tools to provide potential spills response analysis which will involve overland flow, stream travel and groundwater flow including the unsaturated zone transport.

C1.3 REFERENCES

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C2 TIER 1 WATER BUDGET AND STRESS ASSESSMENT

C2.1 METHODS OF ANALYSIS

The Tier 1 Water Budget methodology assessed the existing hydrologic conditions within the watershed using both Conceptual Understanding and numerical modelling information developed through the Source Water Protection program and the ORMGP Groundwater Study reporting. The conceptual model development involved the collection and analysis of baseline information related to climate, surface water and groundwater.

The purpose of a Tier 1 analysis is to estimate the hydrologic stress of subwatersheds in order to screen out areas that are unstressed from a water quantity perspective. Future efforts and resources (Tier 2 and Tier 3) can then focus on areas that are stressed. At Tier 1, for each subwatershed, the *Technical Rules, Nov 2009,* require the evaluation of two scenarios: (1) current conditions; and (2) 25-year future demand. The goal of the current conditions scenario is to identify subwatersheds that are under stress as a result of existing water takings. The goal of the 25-year future scenario is to identify additional watersheds that may become stressed as a result of additional drinking water requirements.

A planned subset of objectives specific to TRCPA's Tier 1 numerical modelling is noted below:

- Quantify components of the hydrologic cycle;
- Apply tools for use in analysis;
- Improve understanding of the groundwater system;
- Define links between shallow and deeper flow;
- Assess changes due to groundwater/surface water withdrawal, urbanization, and climate change;
- Provide spatial mapping of hydrological components;
- Support an understanding of flow regimes in un-gauged watersheds or watershed with a paucity of data;
- Determine levels of stress (i.e., demand vs. available water); and
- Ultimately help identify risks to the watersheds in a process consistent with provincial guidance.

Following the Conceptual Understanding phase is the Tier 1 Screening Stress Assessment. Tier 1 estimates the amount of water that is used currently and will be needed in the future (demand), and compares this to the amount of water available (supply) minus a reserve quantity (demand/(supply – reserve)). The reserve quantity represents the amount of water that is deemed necessary to sustain other activities outside of drinking water use such as for maintaining groundwater discharge, to support the ecosystem, to dilute sewage treatment plant effluent, to maintain navigation, etc. Those areas where municipal drinking water supplies (demand) exceed a certain threshold will be subject to further investigations, namely a Tier 2 Refined Stress Assessment.

The schematic shown in **Figure C2-1** depicts the processes used by the numerical models. A modified Precipitation-Runoff Modelling System (PRMS: surface water model) code developed by the United States Geologic Survey (USGS) was used to estimate quantitatively the various water budget fluxes such as precipitation, interception, evaporation, potential and actual evapotranspiration, snowmelt, runoff, and groundwater interflow and infiltration (Earthfx, 2007).

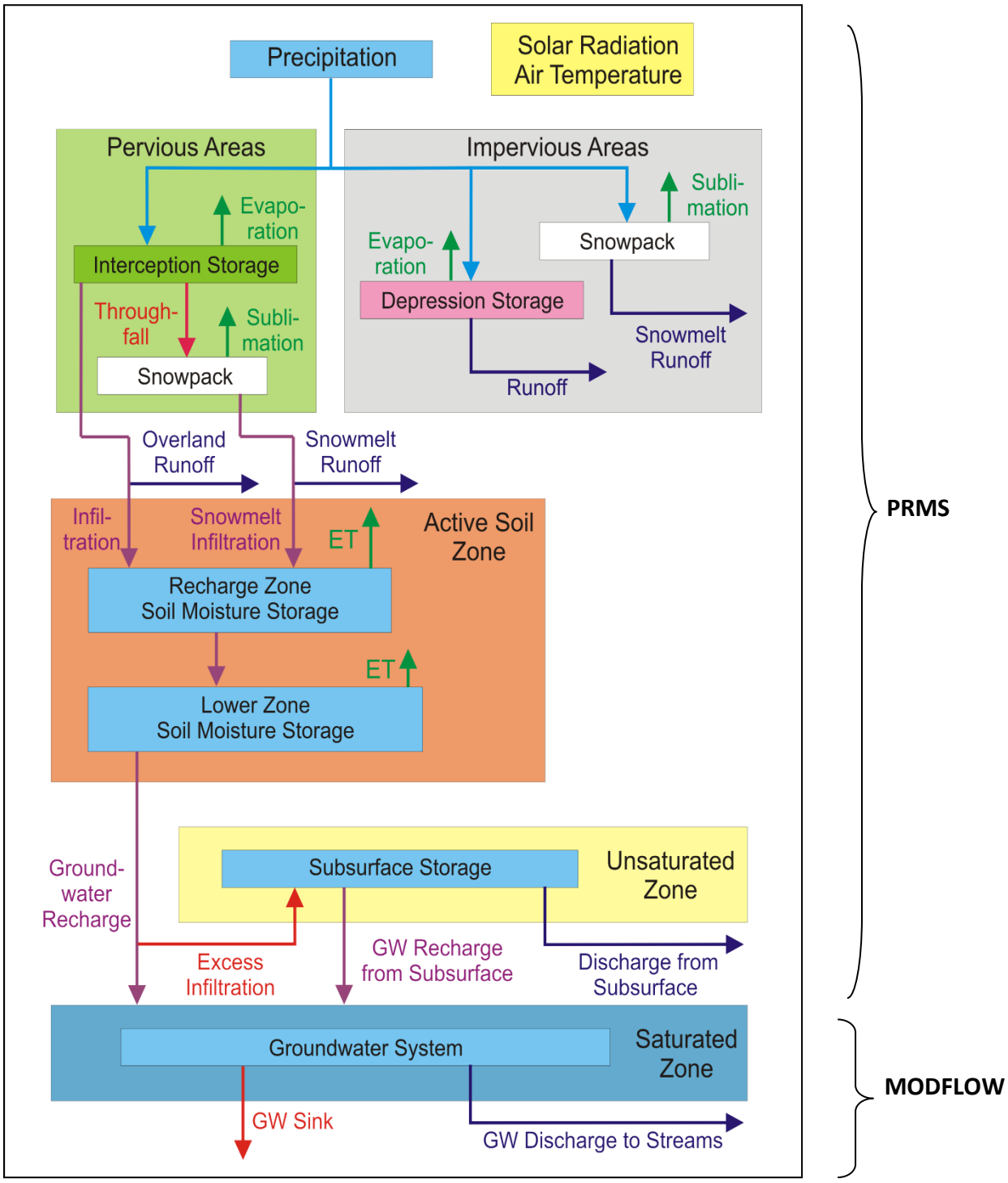

Figure C2-1: PRMS/MODFLOW model process integration (Earthfx, 2007)

The model integrates watershed characteristics, such as slope, aspect, elevation, soils, land use and cover, precipitation, snowpack, temperature, and solar radiation. Square cells, 25 metres on a side, were used to represent the distribution of the characteristics within the watershed, and a daily water balance was calculated for each cell for the simulation period. Daily averages were then averaged over a 19-year simulation period to determine the long-term average annual millimetres per year (mm/yr) for each water budget component. The model was calibrated to total surface water flow data and baseflow estimates from stream gauging, and to the groundwater flow model simulations.

The groundwater model, referred to as the "West Model," was used to simulate groundwater budget components such as groundwater levels and groundwater discharge to streams (Earthfx, 2007). The model integrates data on the physical, geologic, and hydrologic features that govern groundwater flow in the watershed. Calibration was conducted in a trial-and-error process where results of successive model runs were primarily matched to hydraulic heads and flows interpolated from observed static water levels obtained from the MOECC Water Well Information System (WWIS). Matching baseflow in the watershed was a second calibration target. A post-processing program was used to determine lateral groundwater inflows and outflows (underflows) across the watershed boundaries. These underflows were used to adjust the calibration of both the PRMS model and the simulated groundwater discharge from the MODFLOW model.

A surface water model such as PRMS, due to its simplified representation of the groundwater flow processes, may not calibrate properly to observed streamflow if the watershed is gaining or losing significant quantities of groundwater underflow across the watershed boundary. For instance, if the stream gauge data when normalized to the drainage area above the gauge indicates higher rates of normalized flow than recorded at other gauges outside of the watershed, it may indicate that the additional flow is attributable to groundwater inflow from outside the watershed. If this groundwater inflow is not accounted for, the surface water model would need to be adjusted to account for additional groundwater recharge in the watershed. Iteratively calibrating the surface water model (PRMS) to the groundwater flow model (MODFLOW) provides a check on the simulated rates of recharge.

For example, if the PRMS model computes recharge rates that are higher in an area than the groundwater system can transmit, the MODFLOW model will simulate groundwater levels to be much higher than observed. Conversely, if recharge rates are too low, the simulated groundwater levels will also be low. This cross-calibration exercise between the two models also provides a method of determining the net underflow across watershed boundaries. These flows can be subtracted from the observed flows measured at the stream gauge to re-estimate recharge within the watershed. This type of coupling of models is termed "loosely coupled" as they are not directly connected to each other.

The reader is referred to the Tier 1 Water Budget report for the TRSPA jurisdiction prepared by TRCA (2010).

The terminology of the water budget parameters used in this chapter consist of Precipitation (P), Net Precipitation (Pnet or precipitation minus interception), Interception (I), Actual Evapotranspiration (AET), Groundwater Infiltration (GWI), Groundwater Lateral (underflow) in (GWLin) and out (GWLout) of the watershed, Discharge to Streams or Groundwater Discharge (GWD) and Runoff (RO). For the purposes of this chapter, GWI is assumed to include groundwater interflow to streams and groundwater recharge to the saturated zone.

Water withdrawals are represented by groundwater use or surface water use. These water budget components represent the key items discussed in this chapter. Long term average annual values of Pnet,

I, AET, GWI, GWD and RO are reported at a watershed and subwatershed scale, along with mapping of areas of GWI and GWD.

Water budget estimates are typically normalized to units of millimetres of water distributed over a drainage area per year (mm/yr or mm/a). This is accomplished by converting flow or accumulation rates (e.g., m^3/s or L/s) to total volumes per year, and then dividing by the contributing drainage area.

The most important source of water use information was the TRCA Water Use Assessment database, built upon the MOECC PTTW database. The TRCA validated the MOECC PTTW database between 2003 and 2005 in the field and has been updating this database over the past two years through Environmental Bill of Rights registry postings and MOECC application notifications. Field surveys of local water users collected estimates of actual usage rates, which are generally much less than the maximum permitted rates. Additional water use assessment studies completed by the regions of Peel, York and Durham were amalgamated into the final dataset (Marshall, Macklin, Monaghan, 2006; Golder Associates, 2003; Gartner Lee, 2003; Beatty and Associates, 2003). The regions of Peel, York, and Durham subsequently provided an update of monthly groundwater use for all of their active municipal wells.

Non-serviced domestic water use was calculated by combining the unserviced population estimates by subwatershed with estimated per capita demand of 335 L/d/person from the Environment Canada water use website (www.ec.gc.ca). This value is consistent with the value recommended in *Guidance Module 7*.

While efforts have been made to accurately present the findings reported in this chapter, factors such as significant digits and rounding, digitizing and data interpretation may influence results. For instance, in data tables no relationship between significant digits and level of accuracy is implied, and values may not always sum to the expected total.

C2.2 Limitations: Data and Methods

Empirical methods used to analyze simple functions of physical systems have identified limitations, such as relying on limited available data, or in the application of scale. These methods either simulate at a point or simulate a large area as a single value limiting the ability to scale down to a local area or to distribute water reservoir estimates spatially (Ely, 2006). Process-based numerical models that compute distributed water budgets are used to simulate hydrologic processes at varying scales using generally readily available data (Ely, 2006). Numerical models are generally deterministic meaning they are based on physical theories and equations and are generally referred to as physically based models. Lumped models simplify physical characteristics by treating catchments as singular response areas using spatially averaged parameters over each area. Distributed models discretize the spatial variation of physical features into a grid or cell-type representation (Barth, 2005). The lumped approach is generally used in conceptual models, whereas distributed physically based models are used for more detailed spatial and temporal analysis and scenario testing.

C2.3 Uncertainty, Data and Knowledge

Uncertainty is inherent in the water budget estimation process. The accuracy of estimates relies on the:

- Quantity and quality of the input data (e.g., related to streamflow, climate, groundwater well records);
- Conceptual understanding of the watersheds; and
- Modelling calculation methodology.

Overall, the issues related to uncertainty, data and knowledge gaps are complex and highly qualitative. There is a degree of uncertainty associated with every aspect of the water budget analyses. However, it is impossible to provide a quantitative assessment of the level of uncertainty. Rather, one can only say, in very general terms, that the level is low, moderate, or high.

The *Technical Rules, 2009* suggests that it would be reasonable to expect a low level of uncertainty in areas where data density is high, where hydrogeologic studies have been conducted, and where numerical models have been developed. This study generally satisfies all three of these criteria. It is recognized, however, that all hydrogeologic analyses have an intrinsic level of uncertainty, because one can never have enough data to fully know how conditions vary in the subsurface.

Development of the ORMGP Core Model entailed a comprehensive process of (1) collecting and filtering the large amount of water well, monitoring well, and other geologic data; (2) interpreting the geologic logs as best as possible and building a conceptual geologic model; (3) assigning initial estimates of aquifer properties and recharge rates and then refining the estimates through model calibration; and (4) performing statistical and sensitivity analyses to demonstrate the validity of the model calibration. The report by Kassenaar and Wexler (2006) documents the procedures and focuses a great deal of attention on answering the questions related to assessing model uncertainty.

While these independent review comments increase the comfort level with the results of the modelling process, there is still the recognition that geologic data are always incomplete and that the WWIS data used in a large part to develop the models has a high degree of error and uncertainty. Data obtained from municipal monitoring networks and other high-quality sources have less uncertainty and have provided useful information in the vicinity of the municipal wellfields. The number of wells and spatial coverage of high-quality data are limited compared to the WWIS data, however. It is recommended that CLOSPA continue to improve its monitoring network over time and incorporate the available high quality data, especially within the higher stressed watersheds, and thereby reduce the level of uncertainty associated with the numerical models.

Computer models are a simplification of the real world, built from limited and potentially erroneous data, so their results should be considered with care and independently verified. It should be recognized that the passage of time affects the information provided. Environmental conditions can change. Computer simulations are based upon information that existed at the time the data and model was formulated.

C2.4 Surface Water Stress Assessment

The surface water supply values for each subwatershed by month are provided in **Table C2-1**. The monthly reserve values are in **Table C2-2** and the estimated monthly demand values are in **Table C2-3**. Surface water stress assessment results summary is in **Table C2-4.**

Table C2-1: Surface Water Supply Values (QP50) in m3/s

Watershed	Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Etobicoke	ET01	1.204	1.056	1.665	1.951	1.135	0.431	0.122	0.076	0.118	0.262	0.834	1.026
	ET02	0.122	0.102	0.149	0.157	0.112	0.047	0.014	0.012	0.015	0.039	0.091	0.115
	ET03	0.323	0.273	0.447	0.459	0.281	0.118	0.039	0.029	0.046	0.097	0.257	0.292
	ET04	0.603	0.540	0.913	1.080	0.595	0.204	0.053	0.023	0.041	0.089	0.367	0.493
Mimico	MI01	0.368	0.300	0.479	0.524	0.366	0.163	0.049	0.036	0.048	0.111	0.281	0.357
	MI02	0.066	0.053	0.081	0.095	0.066	0.031	0.009	0.007	0.010	0.021	0.055	0.066
	MI03	0.094	0.070	0.118	0.168	0.118	0.057	0.019	0.013	0.018	0.039	0.097	0.109
Humber	HU01	6.927	5.393	10.053	12.255	6.473	2.138	0.818	0.455	0.673	2.321	6.134	7.024
	HU02	0.364	0.249	0.454	0.408	0.264	0.113	0.048	0.030	0.070	0.207	0.399	0.458
	HU03	0.940	0.891	1.452	1.931	1.063	0.332	0.087	0.022	0.025	0.122	0.577	0.822
	HU04	0.419	0.437	0.707	0.963	0.523	0.151	0.039	0.008	0.007	0.052	0.249	0.390
	HU05	3.375	2.499	4.608	6.276	3.051	0.968	0.362	0.179	0.216	1.153	3.019	3.362
	HU06	1.556	1.240	2.172	2.936	1.411	0.460	0.240	0.166	0.213	0.654	1.553	1.806
	HU07	0.849	0.625	1.136	1.604	0.776	0.265	0.180	0.130	0.168	0.487	0.986	1.056
	HU08	0.307	0.232	0.392	0.509	0.239	0.072	0.030	0.023	0.028	0.138	0.314	0.334
	HU09	0.687	0.541	0.883	0.968	0.444	0.124	0.034	0.018	0.024	0.223	0.601	0.658
	HU10	2.267	1.589	3.019	4.422	2.049	0.672	0.248	0.137	0.172	0.903	2.150	2.232
	HU11	0.550	0.394	0.713	0.958	0.425	0.142	0.056	0.029	0.037	0.197	0.480	0.522
	HU12	1.207	0.821	1.674	2.753	1.320	0.439	0.164	0.100	0.131	0.597	1.321	1.270
Don	DO01	2.254	1.803	3.214	3.193	1.870	0.709	0.322	0.265	0.470	1.251	2.596	2.933
	DO02	0.191	0.151	0.232	0.221	0.145	0.058	0.023	0.015	0.039	0.116	0.223	0.246
	DO03	0.971	0.756	1.404	1.646	0.936	0.369	0.202	0.180	0.244	0.610	1.289	1.379
	DO04	0.803	0.612	1.088	1.021	0.603	0.222	0.088	0.058	0.145	0.399	0.847	1.003
	DO05	0.326	0.270	0.506	0.541	0.307	0.113	0.046	0.034	0.050	0.127	0.369	0.426
	DO06	0.410	0.371	0.637	0.828	0.451	0.174	0.130	0.113	0.125	0.269	0.561	0.584
	DO07	0.217	0.173	0.360	0.419	0.241	0.094	0.040	0.033	0.052	0.151	0.336	0.344
Highland	HI01	0.041	0.034	0.064	0.073	0.048	0.018	0.004	0.001	0.003	0.015	0.048	0.055
	HI02	0.533	0.336	0.623	0.671	0.442	0.171	0.075	0.054	0.138	0.400	0.771	0.825
	HI03	0.291	0.183	0.364	0.342	0.223	0.084	0.035	0.024	0.073	0.218	0.413	0.448
	HI04	0.188	0.115	0.230	0.243	0.163	0.068	0.034	0.028	0.059	0.162	0.301	0.309
Rouge	RO01	1.863	1.452	2.675	3.615	2.011	0.702	0.258	0.160	0.286	1.044	2.557	2.779
	RO02	0.638	0.505	0.923	1.237	0.664	0.205	0.057	0.024	0.059	0.261	0.755	0.882
	RO03	1.210	0.918	1.721	2.337	1.321	0.490	0.197	0.138	0.226	0.750	1.754	1.888
	RO04	0.902	0.702	1.354	1.814	1.014	0.374	0.164	0.122	0.170	0.523	1.257	1.339
	RO05	0.262	0.202	0.393	0.527	0.291	0.109	0.073	0.062	0.069	0.167	0.364	0.384
	RO06	0.156	0.130	0.239	0.338	0.188	0.063	0.017	0.007	0.016	0.068	0.204	0.229
	RO07	0.286	0.225	0.434	0.571	0.293	0.095	0.037	0.023	0.040	0.132	0.345	0.379
Petticoat	PE01	0.119	0.087	0.151	0.193	0.115	0.038	0.009	0.003	0.013	0.066	0.168	0.193
F. Bay	FR01	0.145	0.096	0.167	0.203	0.127	0.047	0.013	0.007	0.024	0.081	0.191	0.206
Duffins	DU01	1.967	1.423	2.606	3.533	1.845	0.633	0.312	0.213	0.331	1.019	2.343	2.582
	DU02	1.833	1.316	2.443	3.342	1.726	0.581	0.291	0.203	0.313	0.947	2.133	2.380
	DU03	0.755	0.505	0.958	1.406	0.725	0.246	0.129	0.089	0.135	0.393	0.867	0.963
	DU04	0.512	0.350	0.649	1.036	0.514	0.180	0.110	0.081	0.120	0.277	0.559	0.610
	DU05	0.509	0.360	0.659	0.957	0.475	0.169	0.110	0.082	0.124	0.293	0.568	0.619
	DU06	0.299	0.242	0.414	0.533	0.264	0.082	0.027	0.016	0.032	0.099	0.273	0.323
Carruthers	CA01	0.234	0.153	0.267	0.313	0.185	0.062	0.017	0.007	0.021	0.110	0.278	0.319
Lake Ontario	LO01	0.135	0.118	0.163	0.155	0.111	0.049	0.015	0.011	0.016	0.039	0.095	0.120
	LO04	0.118	0.092	0.138	0.134	0.083	0.028	0.008	0.003	0.019	0.060	0.127	0.144
	LO03	0.123	0.159	0.185	0.165	0.102	0.036	0.010	0.004	0.008	0.032	0.084	0.108
	LO02	0.355	0.356	0.382	0.319	0.199	0.069	0.024	0.019	0.051	0.131	0.246	0.307
	LO05	0.028	0.021	0.037	0.038	0.025	0.009	0.002	0.001	0.004	0.014	0.034	0.037
	LO06	0.021	0.013	0.021	0.022	0.015	0.006	0.003	0.002	0.004	0.014	0.027	0.029

Table C2-2: Surface Water Reserve Values ((QP90) in m3/s)

Watershed	Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Etobicoke	ET01	0.518	0.665	1.056	1.084	0.643	0.190	0.059	0.037	0.047	0.126	0.299	0.623
	ET02	0.057	0.060	0.091	0.087	0.067	0.023	0.008	0.006	0.008	0.016	0.035	0.067
	ET03	0.139	0.172	0.262	0.268	0.160	0.051	0.017	0.015	0.018	0.050	0.114	0.180
	ET04	0.252	0.360	0.557	0.617	0.325	0.086	0.024	0.012	0.013	0.038	0.102	0.296
Mimico	MI01	0.159	0.162	0.271	0.267	0.220	0.074	0.027	0.016	0.024	0.049	0.116	0.204
	MI02	0.028	0.031	0.049	0.050	0.039	0.013	0.005	0.003	0.005	0.009	0.024	0.039
	MI03	0.039	0.034	0.062	0.079	0.069	0.024	0.009	0.006	0.009	0.017	0.043	0.065
Humber	HU01	3.183	3.444	6.220	7.585	3.663	1.065	0.403	0.245	0.224	0.975	2.919	4.337
	HU02	0.176	0.141	0.217	0.205	0.156	0.049	0.023	0.016	0.015	0.092	0.204	0.271
	HU03	0.399	0.528	0.920	1.031	0.585	0.140	0.037	0.012	0.010	0.049	0.134	0.455
	HU04	0.189	0.245	0.442	0.502	0.291	0.067	0.017	0.004	0.003	0.021	0.055	0.196
	HU05	1.596	1.678	2.927	4.031	1.802	0.533	0.176	0.099	0.082	0.368	1.590	2.131
	HU06	0.738	0.775	1.484	1.761	0.838	0.240	0.101	0.091	0.078	0.250	0.771	1.145
	HU07	0.401	0.379	0.797	0.989	0.472	0.146	0.071	0.073	0.066	0.187	0.549	0.685
	HU08	0.147	0.144	0.272	0.319	0.137	0.036	0.013	0.013	0.009	0.039	0.172	0.218
	HU09	0.345	0.361	0.589	0.606	0.252	0.059	0.017	0.011	0.005	0.053	0.300	0.424
	HU10	1.078	1.069	1.788	2.927	1.264	0.404	0.135	0.080	0.070	0.277	1.218	1.482
	HU11	0.269	0.267	0.435	0.591	0.257	0.084	0.028	0.016	0.010	0.054	0.261	0.354
	HU12	0.549	0.523	0.919	1.897	0.818	0.272	0.090	0.058	0.057	0.197	0.784	0.861
Don	DO01	1.115	0.985	1.739	1.699	1.092	0.320	0.160	0.127	0.122	0.569	1.385	1.778
	DO02	0.099	0.081	0.131	0.116	0.086	0.026	0.012	0.008	0.008	0.052	0.115	0.147
	DO03	0.457	0.412	0.792	0.916	0.556	0.168	0.087	0.081	0.080	0.280	0.697	0.849
	DO04	0.394	0.355	0.582	0.537	0.348	0.098	0.043	0.032	0.028	0.183	0.436	0.603
	DO05	0.157	0.166	0.291	0.299	0.176	0.051	0.023	0.018	0.014	0.059	0.151	0.255
	DO06	0.204	0.204	0.393	0.499	0.270	0.083	0.046	0.052	0.052	0.116	0.291	0.382
	DO07	0.103	0.089	0.189	0.225	0.142	0.042	0.021	0.016	0.016	0.059	0.184	0.209
Highland	HI01	0.020	0.019	0.035	0.038	0.028	0.007	0.002	0.001	0.001	0.005	0.019	0.033
	HI02	0.260	0.185	0.314	0.345	0.256	0.077	0.037	0.028	0.023	0.175	0.458	0.496
	HI03	0.143	0.100	0.163	0.175	0.128	0.037	0.017	0.013	0.010	0.090	0.245	0.274
	HI04	0.092	0.065	0.103	0.126	0.095	0.031	0.017	0.014	0.012	0.071	0.183	0.182
Rouge	RO01	0.918	0.798	1.590	2.019	1.192	0.318	0.127	0.079	0.082	0.354	1.260	1.661
	RO02	0.321	0.297	0.563	0.706	0.392	0.094	0.028	0.013	0.011	0.082	0.333	0.530
	RO03	0.588	0.491	1.015	1.302	0.789	0.222	0.096	0.065	0.071	0.266	0.915	1.125
	RO04	0.430	0.368	0.804	1.040	0.606	0.174	0.078	0.057	0.064	0.191	0.640	0.810
	RO05	0.126	0.112	0.236	0.324	0.175	0.053	0.028	0.028	0.028	0.066	0.191	0.247
	RO06	0.077	0.068	0.144	0.186	0.112	0.028	0.009	0.004	0.004	0.021	0.087	0.136
	RO07	0.139	0.127	0.267	0.345	0.174	0.046	0.017	0.013	0.012	0.046	0.171	0.235
Petticoat	PE01	0.061	0.049	0.083	0.099	0.068	0.016	0.004	0.002	0.001	0.020	0.082	0.114
F. Bay	FR01	0.066	0.052	0.093	0.095	0.072	0.019	0.007	0.004	0.004	0.031	0.099	0.130
Duffins	DU01	0.955	0.854	1.615	2.090	1.123	0.318	0.132	0.103	0.115	0.384	1.198	1.610
	DU02	0.888	0.803	1.511	1.988	1.051	0.298	0.125	0.098	0.111	0.352	1.109	1.487
	DU03	0.360	0.311	0.569	0.849	0.442	0.128	0.055	0.044	0.050	0.148	0.454	0.615
	DU04	0.242	0.215	0.407	0.659	0.314	0.094	0.046	0.041	0.046	0.116	0.303	0.393
	DU05	0.242	0.219	0.441	0.584	0.288	0.087	0.045	0.042	0.047	0.121	0.319	0.397
	DU06	0.144	0.154	0.287	0.318	0.156	0.039	0.013	0.009	0.008	0.036	0.121	0.206
Carruthers	CA01	0.111	0.087	0.150	0.158	0.107	0.026	0.009	0.004	0.003	0.034	0.140	0.198
Lake Ontario	LO01	0.061	0.068	0.096	0.082	0.067	0.022	0.008	0.005	0.008	0.017	0.038	0.067
	LO04	0.061	0.053	0.087	0.070	0.048	0.012	0.004	0.002	0.002	0.023	0.064	0.089
	LO03	0.065	0.076	0.121	0.087	0.060	0.016	0.006	0.002	0.003	0.012	0.024	0.055
	LO02	0.181	0.191	0.252	0.164	0.119	0.033	0.015	0.010	0.013	0.053	0.118	0.170
	LO05	0.013	0.012	0.020	0.019	0.014	0.004	0.001	0.001	0.001	0.006	0.017	0.023
	LO06	0.010	0.007	0.012	0.011	0.008	0.003	0.001	0.001	0.001	0.006	0.016	0.018

Table C2-3: Surface Water Demand Summary by Subwatershed

Watershed	Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Etobicoke	ET01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0115	0.0112	0.0112	0.0115	0.0000	0.0000	0.0000
	ET02	-	-	-	-	-	-	-	-	-	-	-	-
	ET03	-	-	-	-	-	-	-	-	-	-	-	-
	ET04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0358	0.0347	0.0347	0.0358	0.0000	0.0000	0.0000
Mimico	MI01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0076	0.0073	0.0073	0.0076	0.0000	0.0000	0.0000
	MI02	-	-	-	-	-	-	-	-	-	-	-	-
	MI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0268	0.0259	0.0259	0.0268	0.0000	0.0000	0.0000
Humber	HU01	0.0001	0.0001	0.0001	0.0001	0.0001	0.0130	0.0433	0.0433	0.0130	0.0001	0.0001	0.0001
	HU02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0053	0.0052	0.0052	0.0053	0.0000	0.0000	0.0000
	HU03	0.0001	0.0001	0.0001	0.0001	0.0001	0.0029	0.0041	0.0041	0.0029	0.0001	0.0001	0.0001
	HU04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0052	0.0052	0.0000	0.0000	0.0000	0.0000
	HU05	0.0001	0.0001	0.0001	0.0001	0.0001	0.0137	0.0175	0.0175	0.0137	0.0001	0.0001	0.0001
	HU06	0.0002	0.0002	0.0002	0.0002	0.0002	0.0100	0.0123	0.0123	0.0100	0.0002	0.0002	0.0002
	HU07	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0024	0.0024	0.0001	0.0001	0.0001	0.0001
	HU08	-	-	-	-	-	-	-	-	-	-	-	-
	HU09	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	HU10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083	0.0134	0.0134	0.0083	0.0000	0.0000	0.0000
	HU11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	HU12	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Don	DO01	-	-	-	-	-	-	-	-	-	-	-	-
	DO02	-	-	-	-	-	-	-	-	-	-	-	-
	DO03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0102	0.0099	0.0099	0.0102	0.0000	0.0000	0.0000
	DO04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0020	0.0020	0.0020	0.0020	0.0000	0.0000	0.0000
	DO05	0.0031	0.0035	0.0031	0.0032	0.0031	0.0053	0.0051	0.0051	0.0053	0.0031	0.0032	0.0031
	DO06	0.0002	0.0002	0.0002	0.0002	0.0002	0.0051	0.0049	0.0049	0.0051	0.0002	0.0002	0.0002
	DO07	0.0006	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Highland	HI01	-	-	-	-	-	-	-	-	-	-	-	-
	HI02	-	-	-	-	-	-	-	-	-	-	-	-
	HI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0049	0.0047	0.0047	0.0049	0.0000	0.0000	0.0000
	HI04	-	-	-	-	-	-	-	-	-	-	-	-
Rouge	RO01	-	-	-	-	-	-	-	-	-	-	-	-
	RO02	0.0007	0.0008	0.0007	0.0008	0.0007	0.0114	0.0127	0.0127	0.0114	0.0007	0.0008	0.0007
	RO03	0.0002	0.0002	0.0002	0.0002	0.0002	0.0158	0.0153	0.0153	0.0158	0.0002	0.0002	0.0002
	RO04	0.0001	0.0001	0.0001	0.0001	0.0001	0.0004	0.0010	0.0010	0.0004	0.0001	0.0001	0.0001
	RO05	0.0001	0.0001	0.0001	0.0001	0.0001	0.0026	0.0031	0.0031	0.0026	0.0001	0.0001	0.0001
	RO06	0.0003	0.0004	0.0003	0.0003	0.0003	0.0003	0.0013	0.0013	0.0003	0.0003	0.0003	0.0003
	RO07	0.0009	0.0009	0.0009	0.0009	0.0009	0.0049	0.0059	0.0059	0.0049	0.0009	0.0009	0.0009
Petticoat	PE01	-	-	-	-	-	-	-	-	-	-	-	-
F. Bay	FR01	-	-	-	-	-	-	-	-	-	-	-	-
Duffins	DU01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0037	0.0036	0.0036	0.0037	0.0000	0.0000	0.0000
	DU02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0076	0.0076	0.0078	0.0000	0.0000	0.0000
	DU03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031	0.0030	0.0030	0.0031	0.0000	0.0000	0.0000
	DU04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0035	0.0034	0.0034	0.0035	0.0000	0.0000	0.0000
	DU05	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	DU06	0.0001	0.0001	0.0001	0.0001	0.0001	0.0130	0.0172	0.0172	0.0130	0.0001	0.0001	0.0001
Carruthers	CA01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0061	0.0059	0.0059	0.0061	0.0000	0.0000	0.0000
Lake Ontario	LO01	-	-	-	-	-	-	-	-	-	-	-	-
	LO04	-	-	-	-	-	-	-	-	-	-	-	-
	LO03	-	-	-	-	-	-	-	-	-	-	-	-
	LO02	-	-	-	-	-	-	-	-	-	-	-	-
	LO05	-	-	-	-	-	-	-	-	-	-	-	-
	LO06	-	-	-	-	-	-	-	-	-	-	-	-

Table C2-4: Surface Water Stress Assessment Results Summary

Watershed	Catchment	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Etobicoke	ET01	0%	0%	0%	0%	0%	5%	18%	29%	16%	0%	0%	0%
	ET02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ET03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ET04	0%	0%	0%	0%	0%	30%	120%	333%	127%	0%	0%	0%
Mimico	MI01	0%	0%	0%	0%	0%	9%	33%	37%	31%	0%	0%	0%
	MI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	MI03	0%	0%	0%	0%	0%	81%	257%	360%	294%	0%	0%	0%
Humber	HU01	0%	0%	0%	0%	0%	1%	10%	21%	3%	0%	0%	0%
	HU02	0%	0%	0%	0%	0%	8%	21%	37%	10%	0%	0%	0%
	HU03	0%	0%	0%	0%	0%	2%	8%	40%	19%	0%	0%	0%
	HU04	0%	0%	0%	0%	0%	0%	23%	129%	0%	0%	0%	0%
	HU05	0%	0%	0%	0%	0%	3%	9%	22%	10%	0%	0%	0%
	HU06	0%	0%	0%	0%	0%	5%	9%	16%	7%	0%	0%	0%
	HU07	0%	0%	0%	0%	0%	0%	2%	4%	0%	0%	0%	0%
	HU08	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	HU09	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
	HU10	0%	0%	0%	0%	0%	3%	12%	23%	8%	0%	0%	0%
	HU11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	HU12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don	DO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	DO02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	DO03	0%	0%	0%	0%	0%	5%	9%	10%	6%	0%	0%	0%
	DO04	0%	0%	0%	0%	0%	2%	4%	7%	2%	0%	0%	0%
	DO05	2%	3%	1%	1%	2%	8%	22%	32%	15%	5%	1%	2%
	DO06	0%	0%	0%	0%	0%	6%	6%	8%	7%	0%	0%	0%
	DO07	1%	1%	0%	0%	1%	1%	3%	4%	2%	1%	0%	0%
Highland	HI01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	HI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	HI03	0%	0%	0%	0%	0%	10%	25%	44%	8%	0%	0%	0%
	HI04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Rouge	RO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	RO02	0%	0%	0%	0%	0%	10%	44%	119%	24%	0%	0%	0%
	RO03	0%	0%	0%	0%	0%	6%	15%	21%	10%	0%	0%	0%
	RO04	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	0%
	RO05	0%	0%	0%	0%	0%	5%	7%	9%	6%	0%	0%	0%
	RO06	0%	1%	0%	0%	0%	1%	15%	38%	3%	1%	0%	0%
	RO07	1%	1%	1%	0%	1%	10%	29%	55%	17%	1%	1%	1%
Petticoat	PE01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
F. Bay	FR01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Duffins	DU01	0%	0%	0%	0%	0%	1%	2%	3%	2%	0%	0%	0%
	DU02	0%	0%	0%	0%	0%	3%	5%	7%	4%	0%	0%	0%
	DU03	0%	0%	0%	0%	0%	3%	4%	7%	4%	0%	0%	0%
	DU04	0%	0%	0%	0%	0%	4%	5%	9%	5%	0%	0%	0%
	DU05	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	DU06	0%	0%	0%	0%	0%	30%	122%	243%	54%	0%	0%	0%
Carruthers	CA01	0%	0%	0%	0%	0%	17%	71%	191%	33%	0%	0%	0%
Lake Ontario	LO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	LO04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	LO03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	LO02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	LO05	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	LO06	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

C2.5 Surface Water Supply and Demand

As discussed in **Section C3**, surface water stress assessment calculations utilized flow percentiles, based on daily data for the 8-year modelling period. Total supply was estimated as the median monthly flow (Q_{P50}), and reserve estimates were based on the 90th percentile flow (Q_{P90}). **Figure C2-2** to **Figure C2-15** show the simulated results as compared to observed values for gauged catchments in the TRSPA watersheds. These flow duration curves show that typically the model provided conservative estimates of stream flow when compared to observed data.

Given the relatively high percentage values found in the surface water stress assessment (**Section C3**), monthly supply (total supply – reserve) and monthly demand were plotted for catchments that were assigned a significant classification. This allowed for better visualization of the timing and extent of demand. These graphs (**Figure C2-16** to **Figure C2-21**) show that stresses in the TRSPA are typically due to low supplies in August, when demand is at its peak and there is ample water to meet demands on an annual basis, reinforcing the need for large scale water users to utilize storage reservoirs for irrigation purposes.

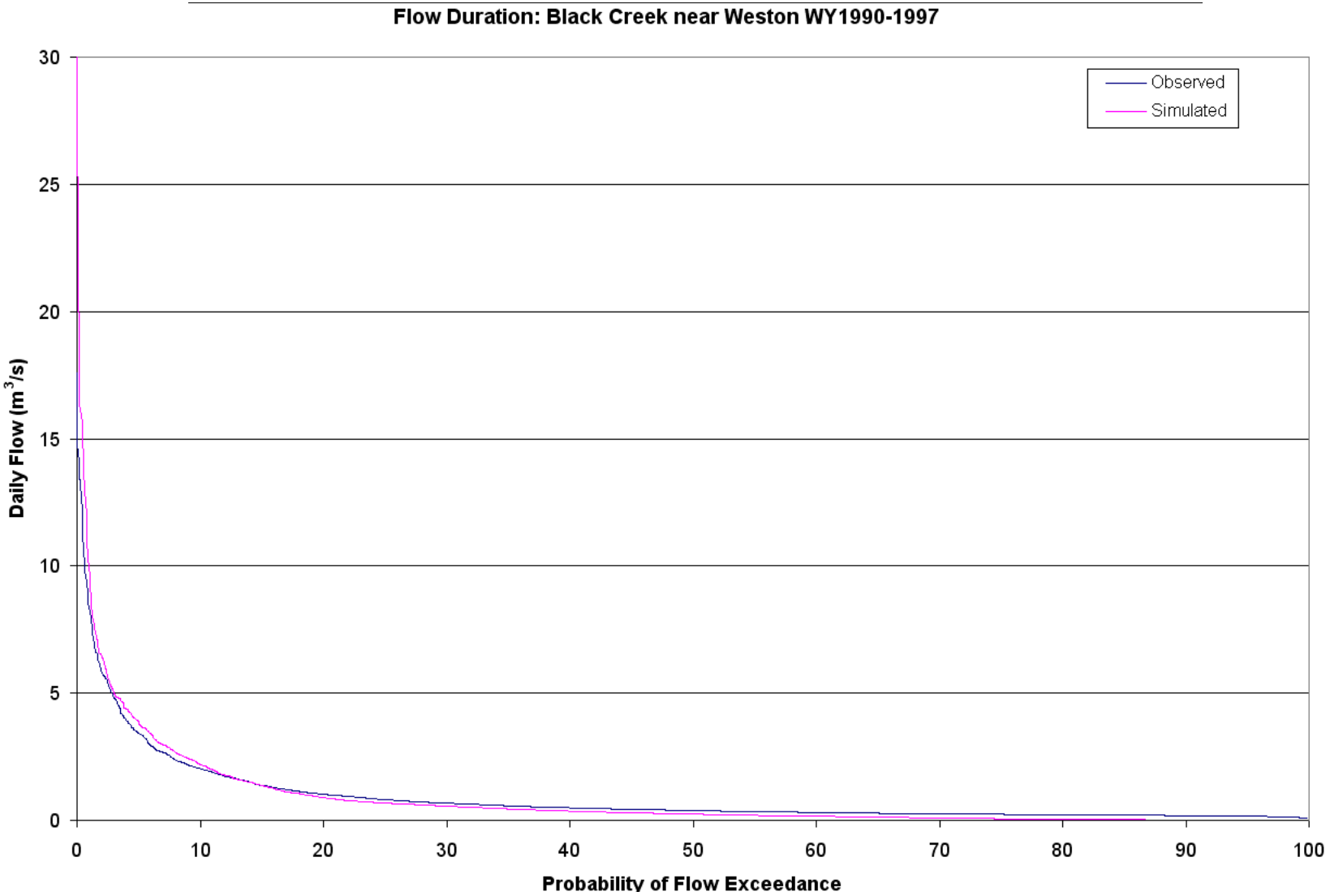

Figure C2-2: Flow Duration Curve for Black Creek near Weston Rd.

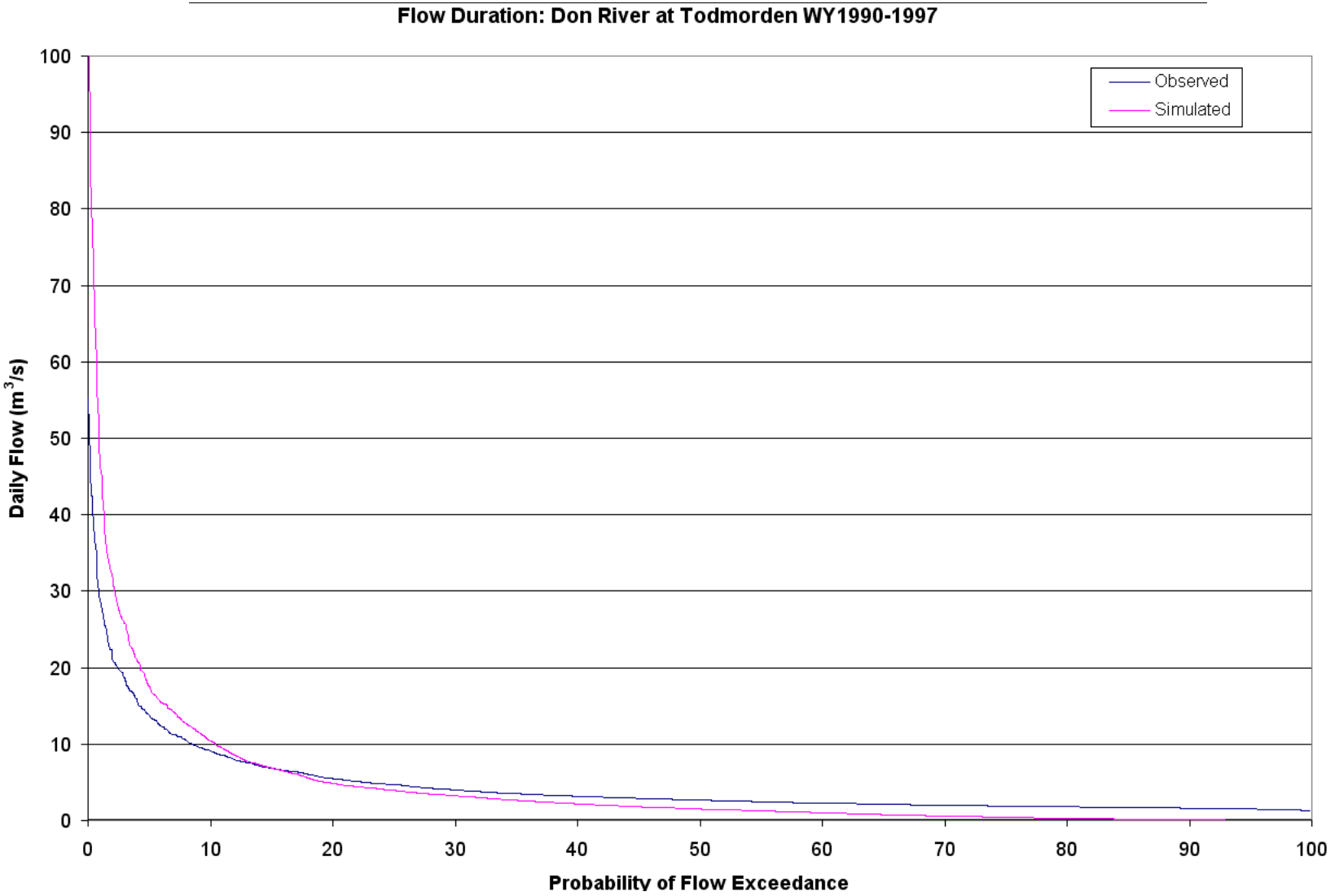

Figure C2-3: Flow Duration Curve for Don River at Todmorden

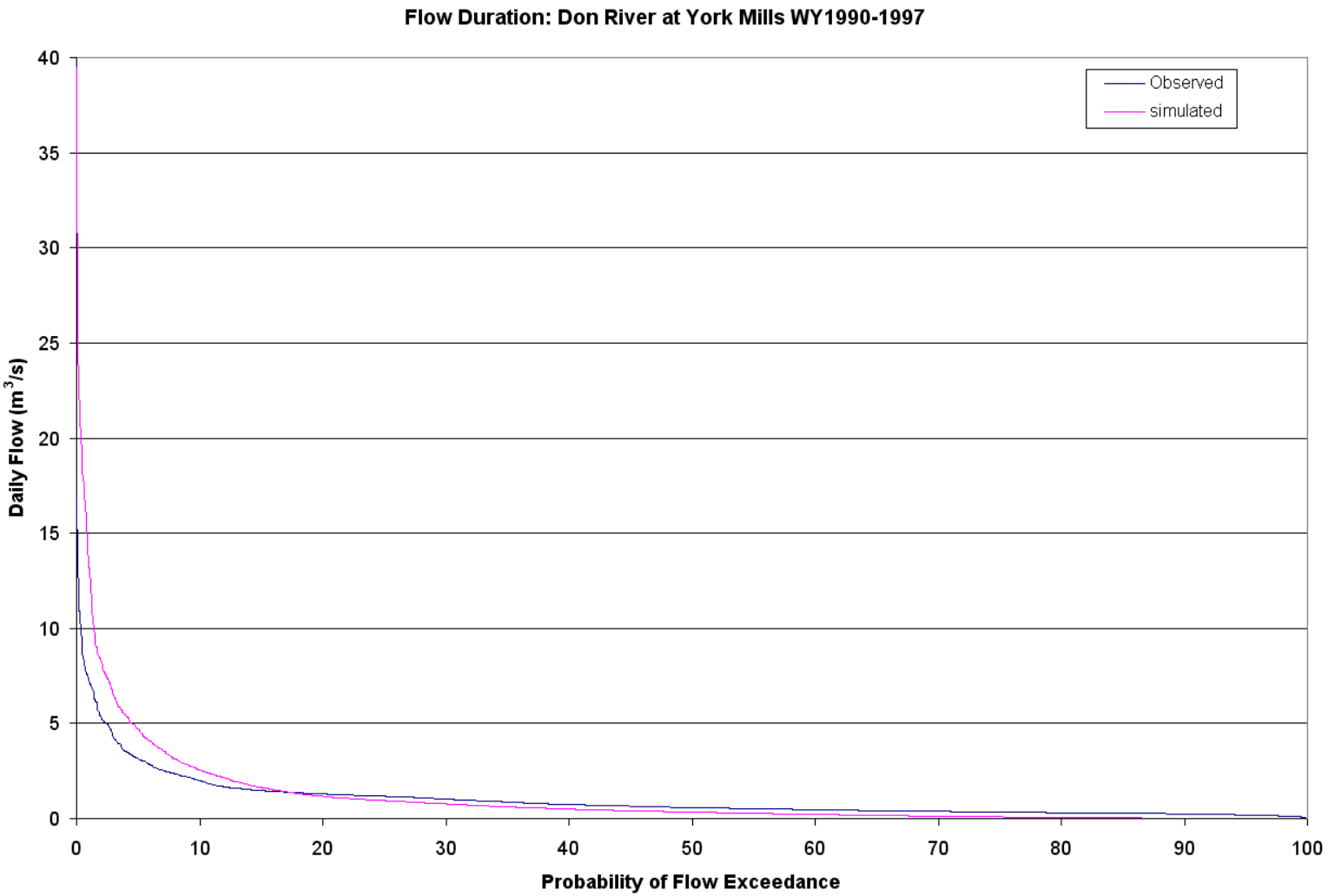

Figure C2-4: Flow Duration Curve for Don River at York Mills

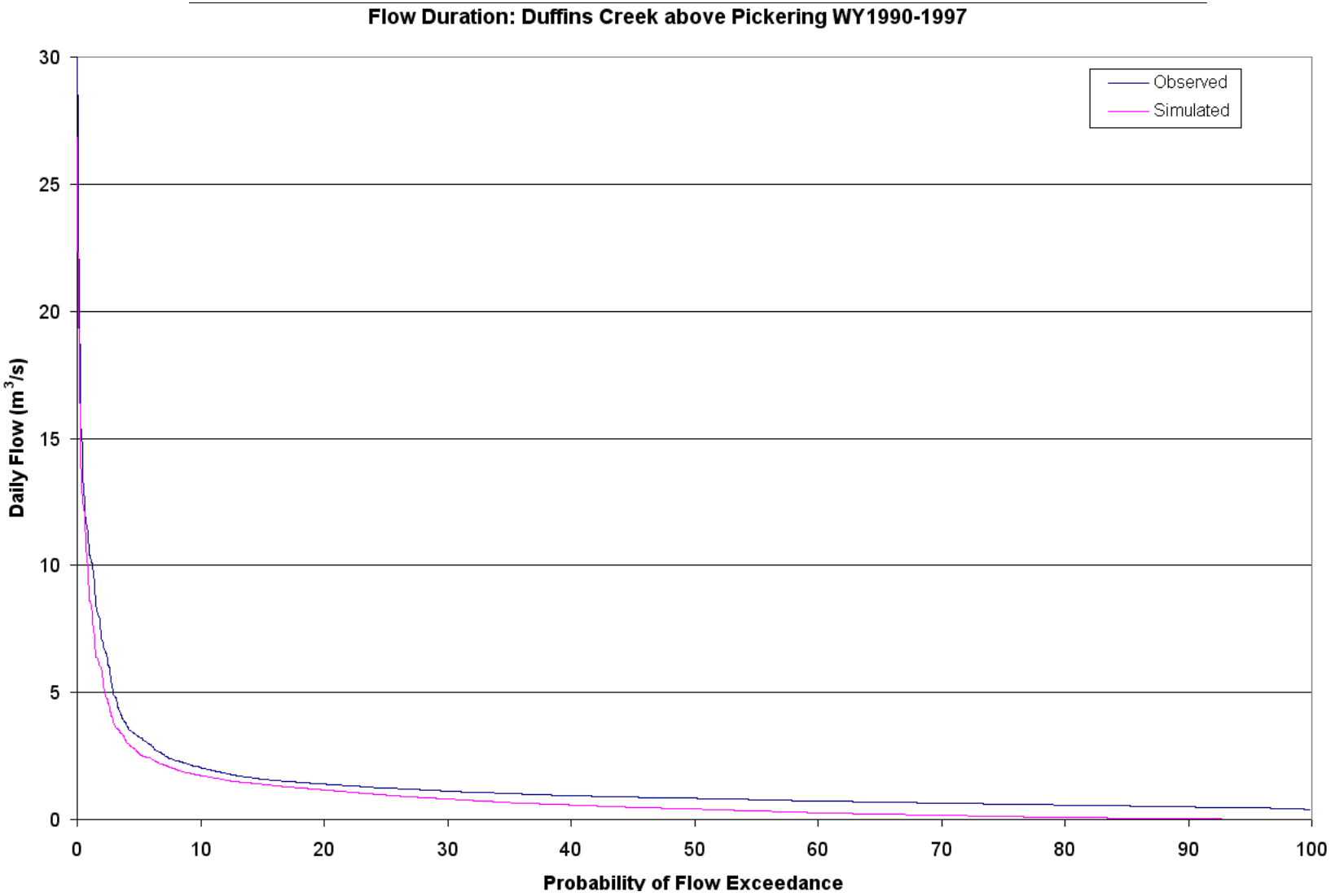

Figure C2-5: Flow Duration Curve for Duffins Cr. above Pickering

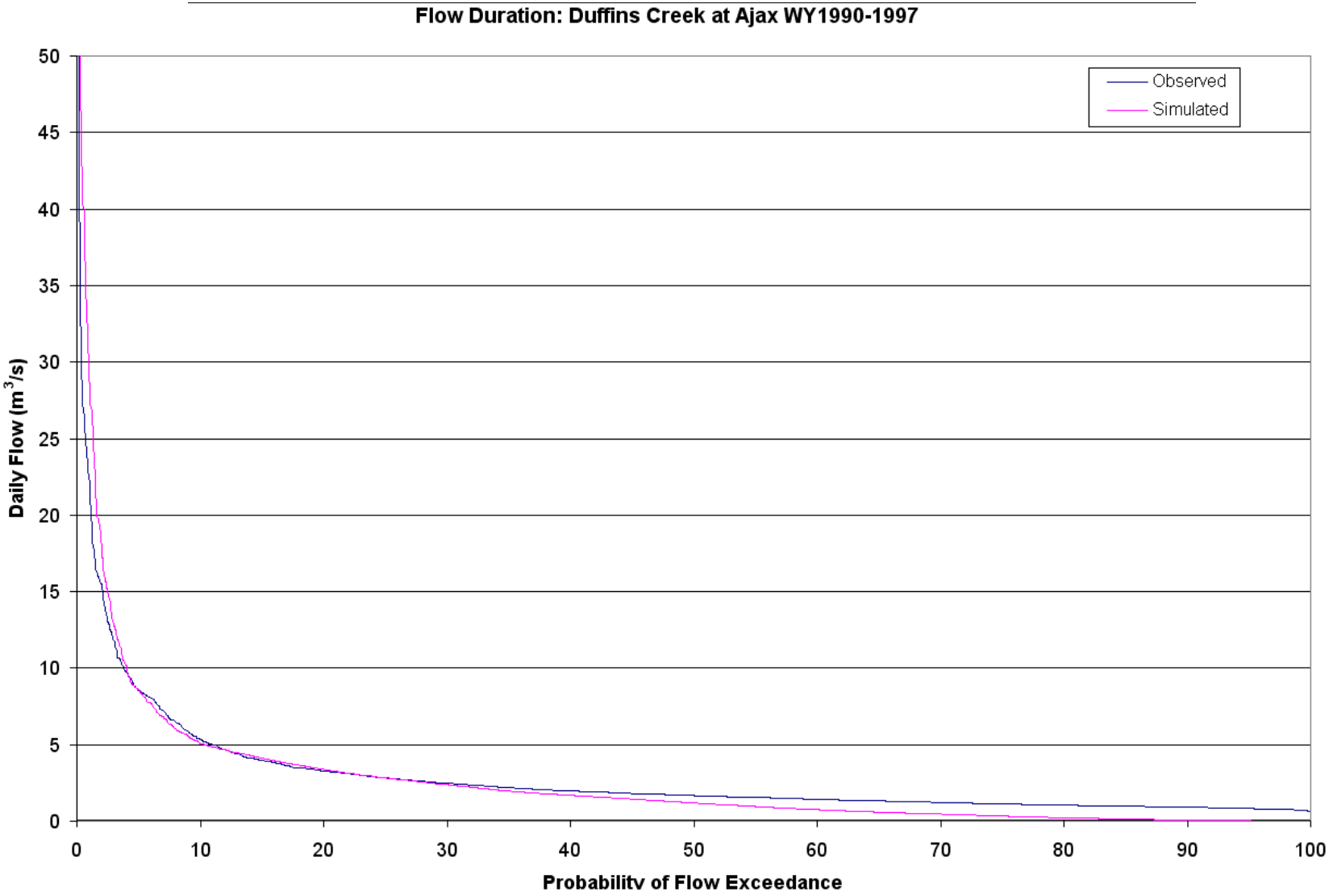

Figure C2-6: Flow Duration Curve for Duffins Cr. at Ajax

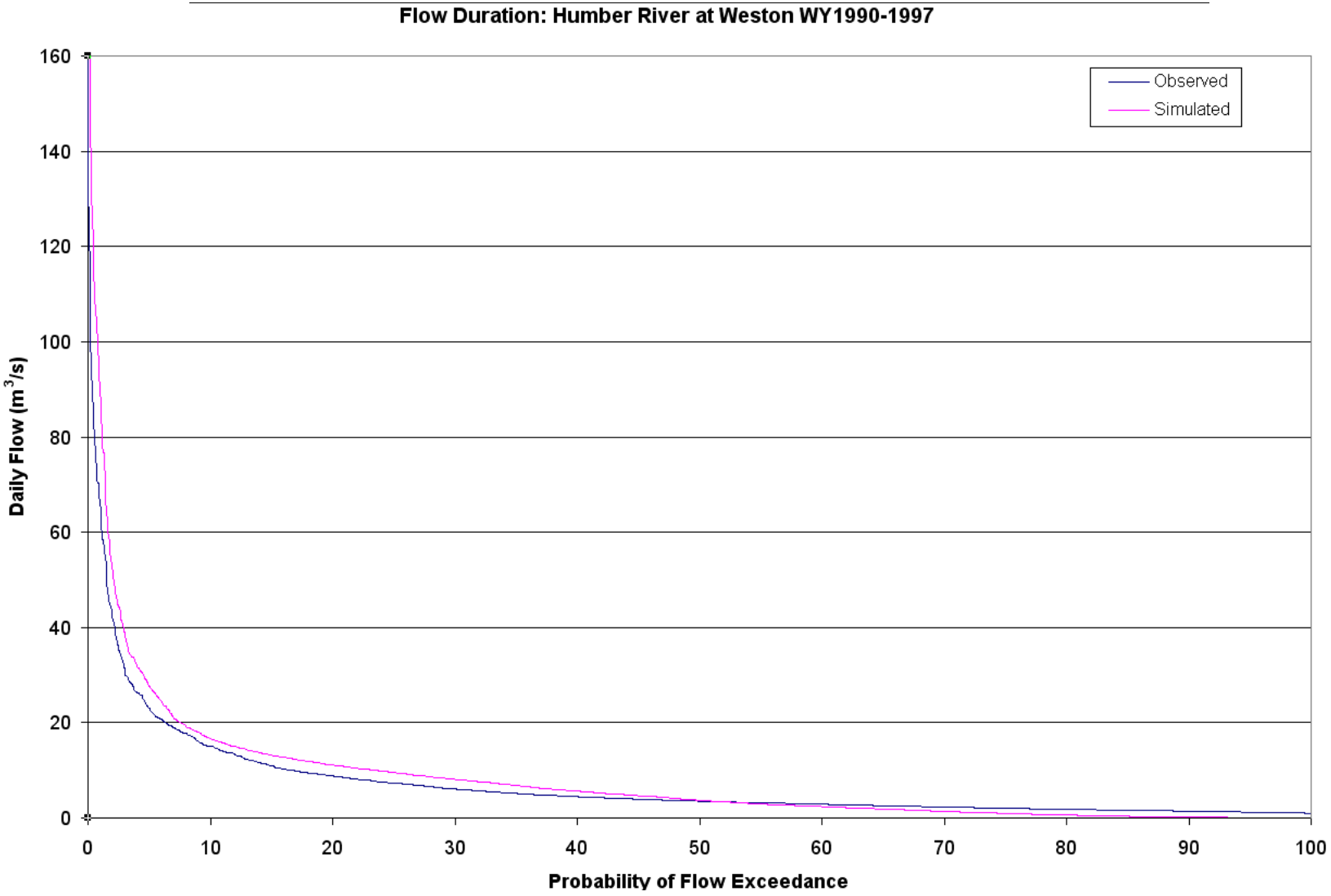

Figure C2-7: Flow Duration Curve for Humber River at Weston Rd.

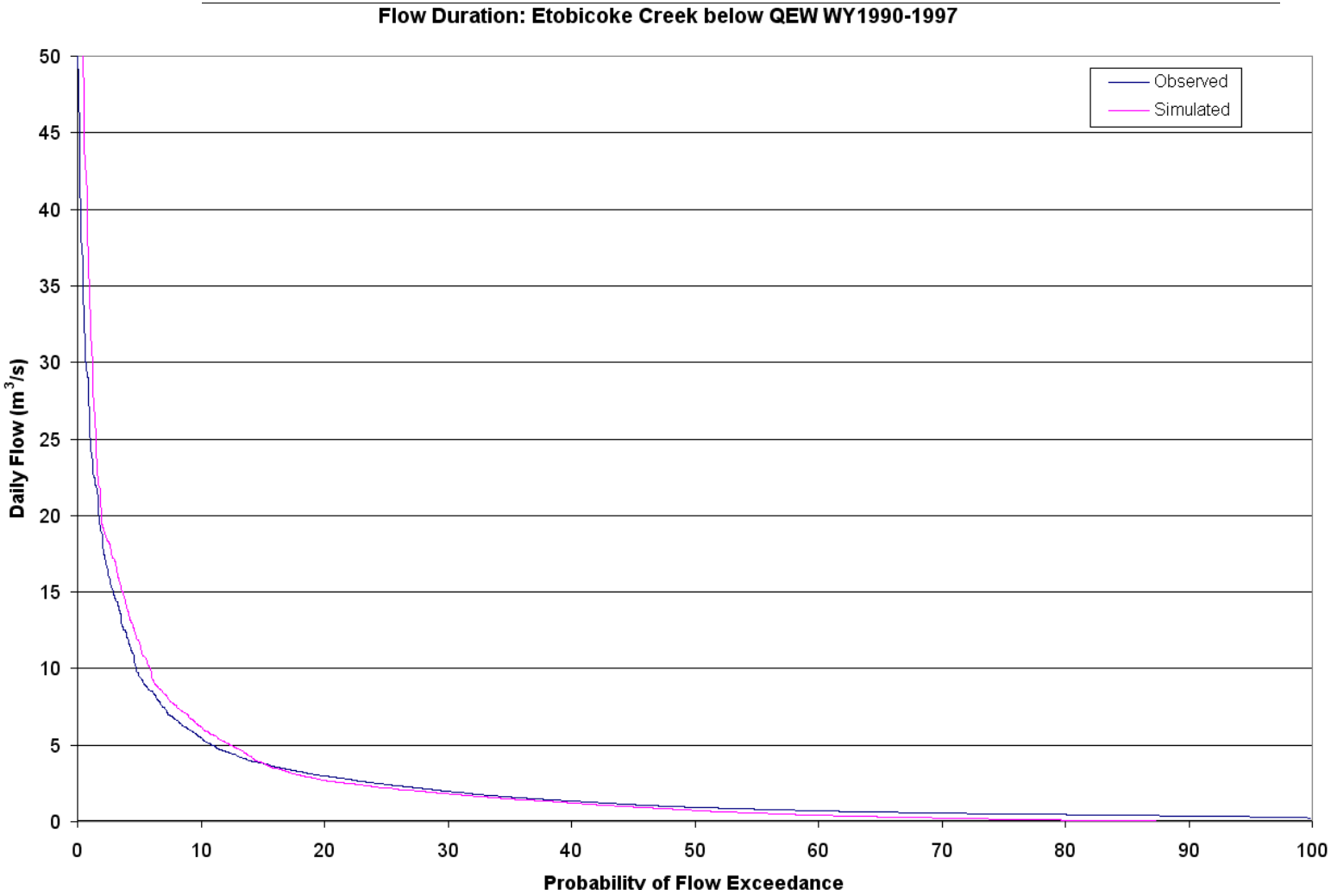

Figure C2-8: Flow Duration Curve Etobicoke Creek below Q.E.W.

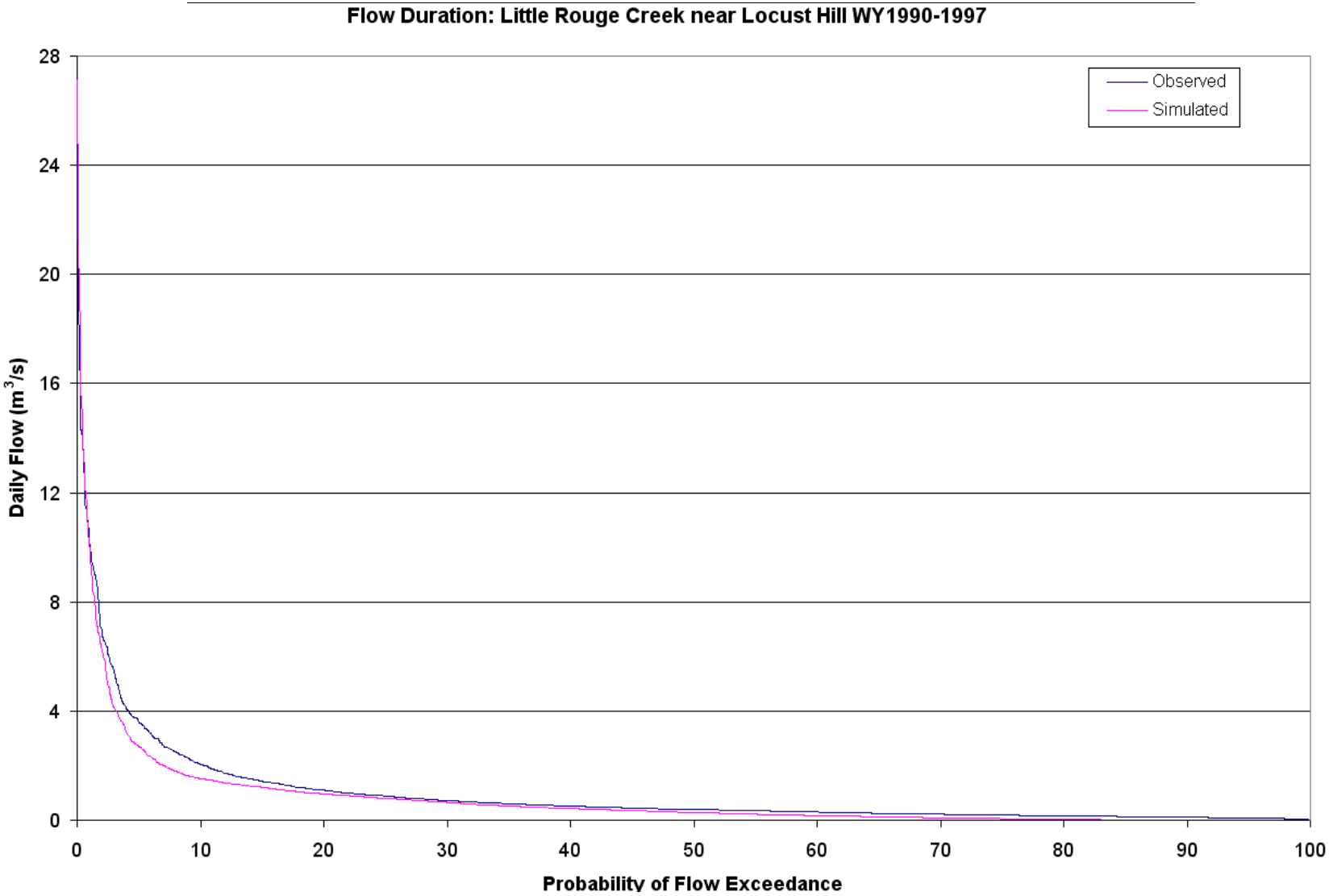

Figure C2-9: Flow Duration Curve for Little Rouge Creek near Locust Hill

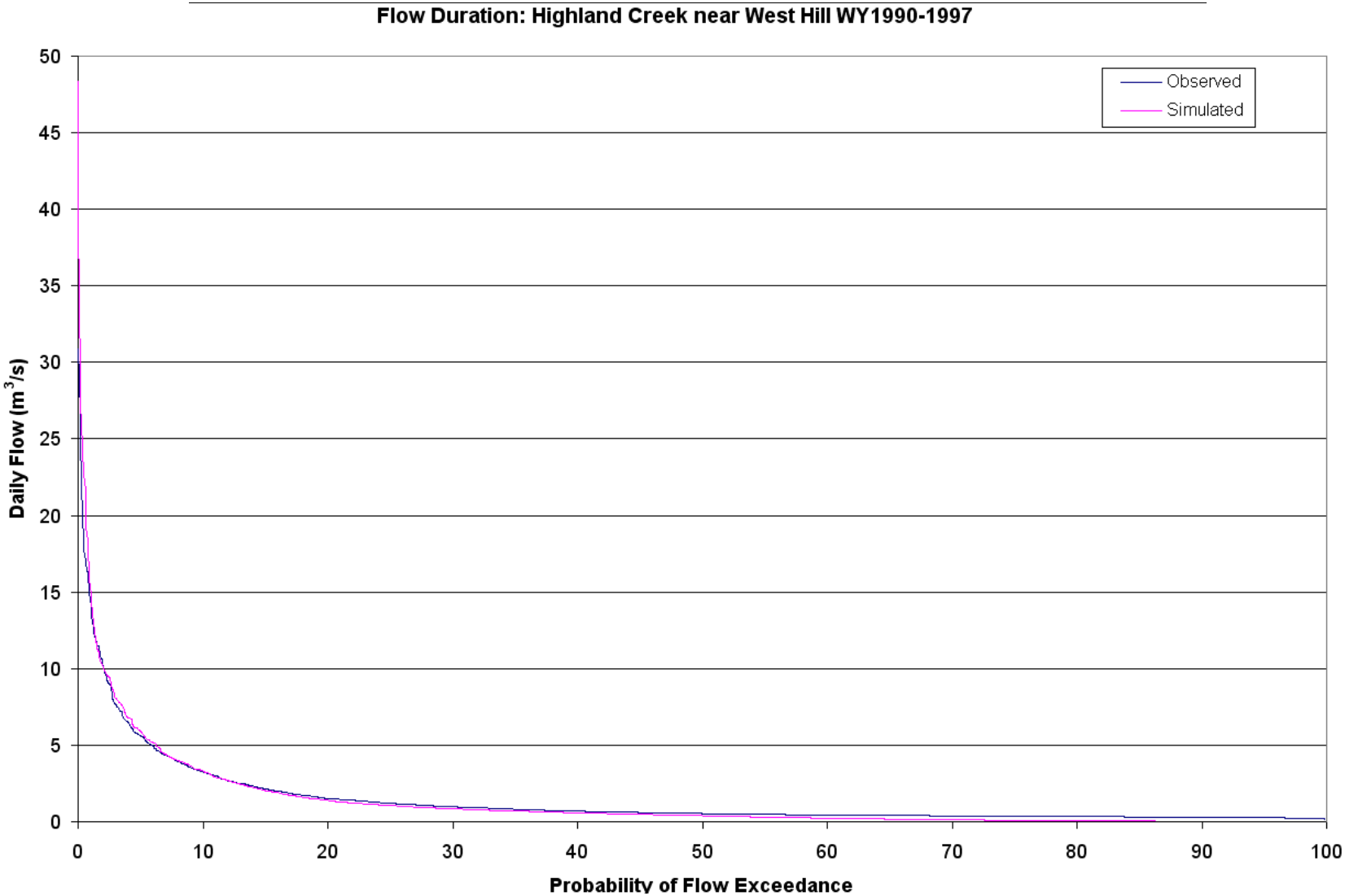

Figure C2-10: Flow Duration Curve for Highland Creek near West Hill.

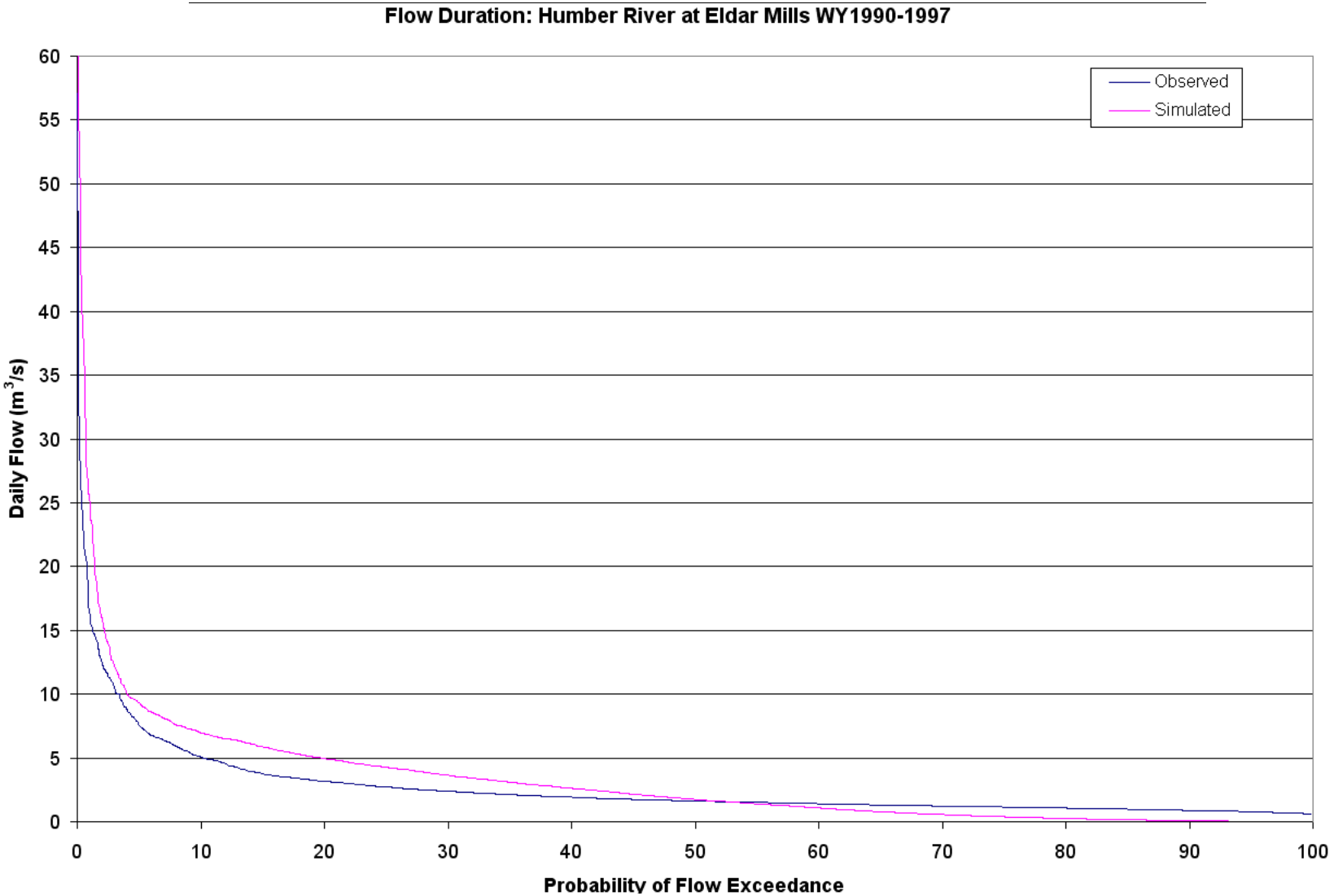

Figure C2-11: Flow Duration Curve for Humber River at Elder Mills

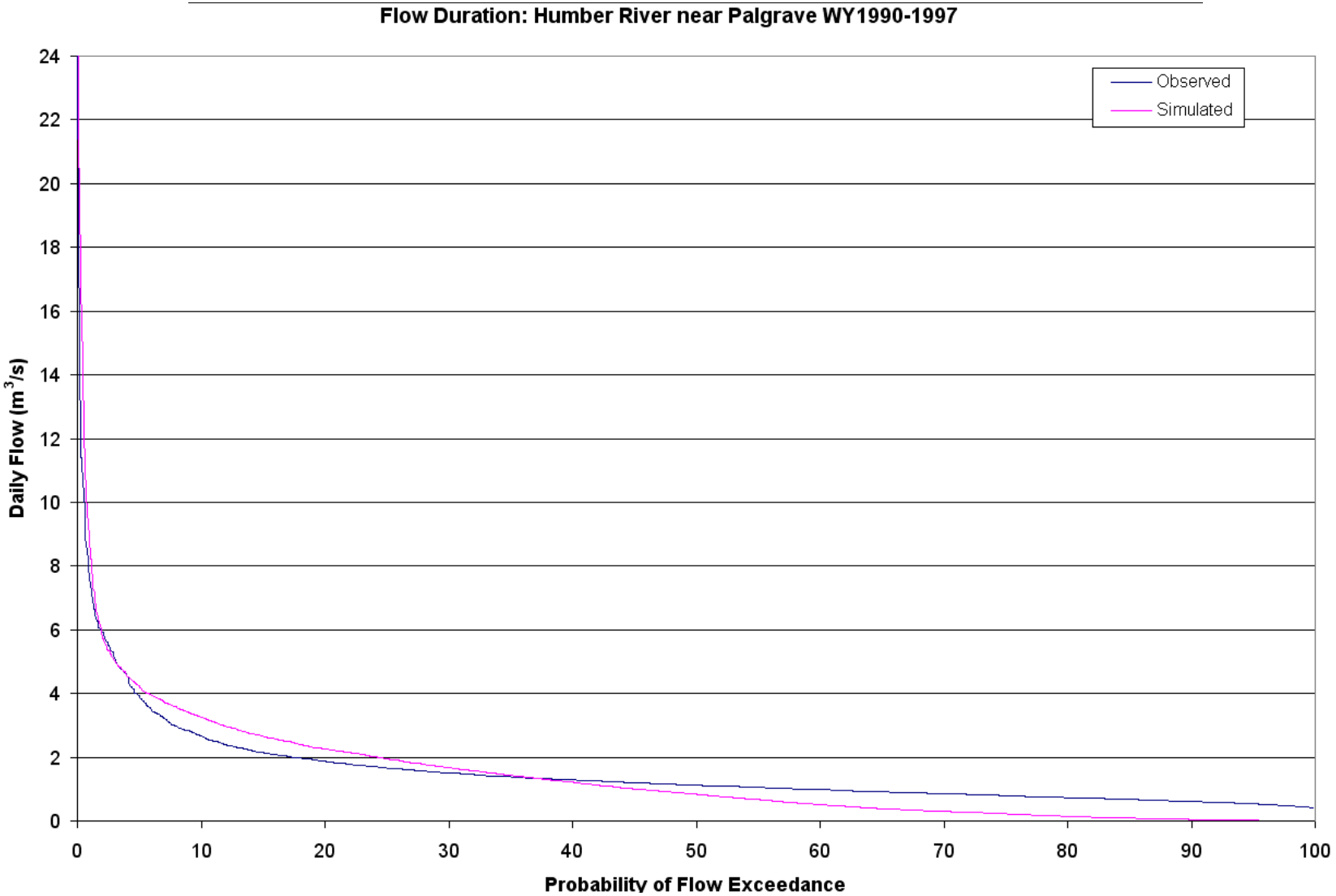

Figure C2-12: Flow Duration Curve for Humber River near Palgrave

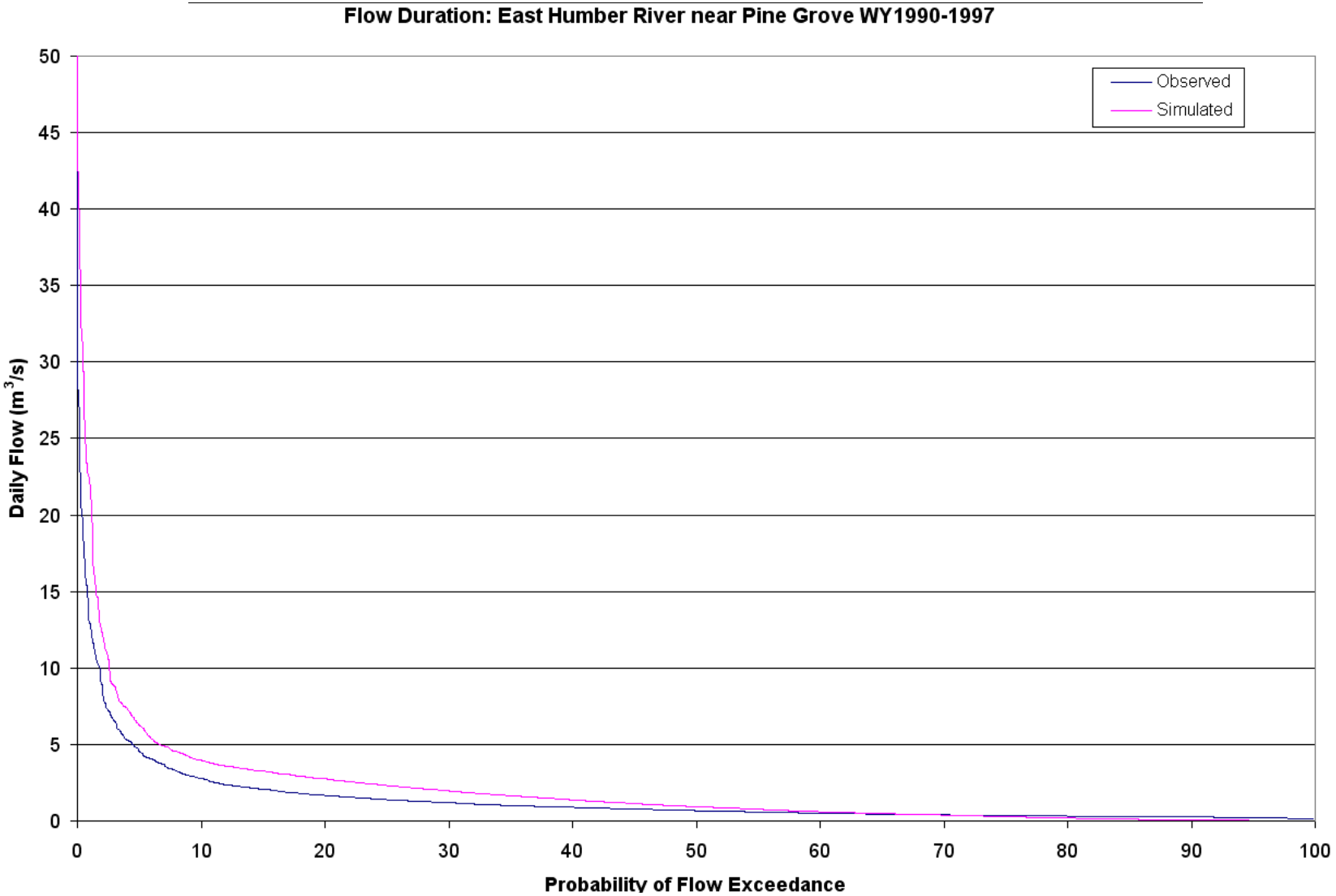

Figure C2-13: Flow Duration Curve for East Humber near Pine Grove

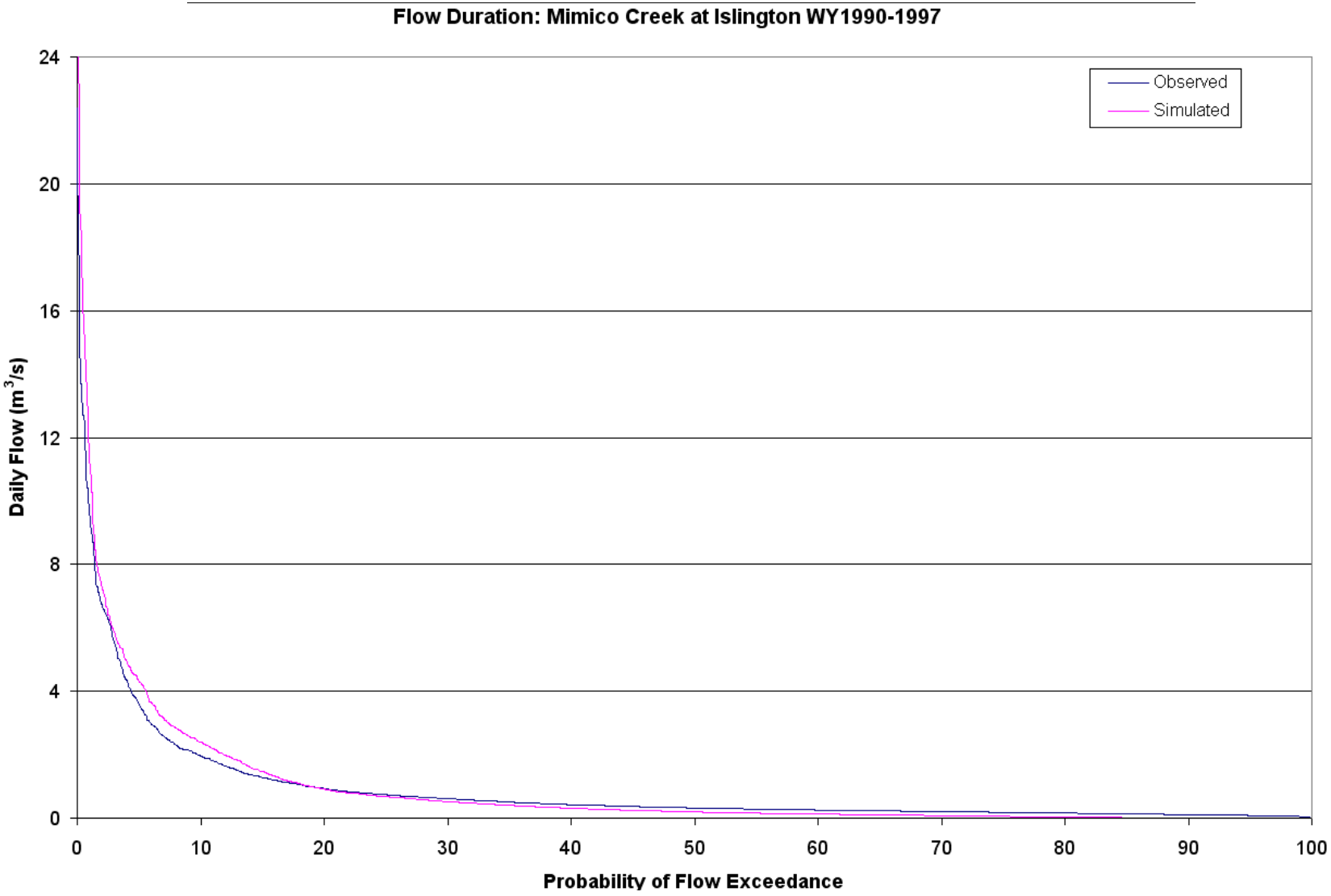

Figure C2-14: Flow Duration Curve for Mimico Cr. at Islington

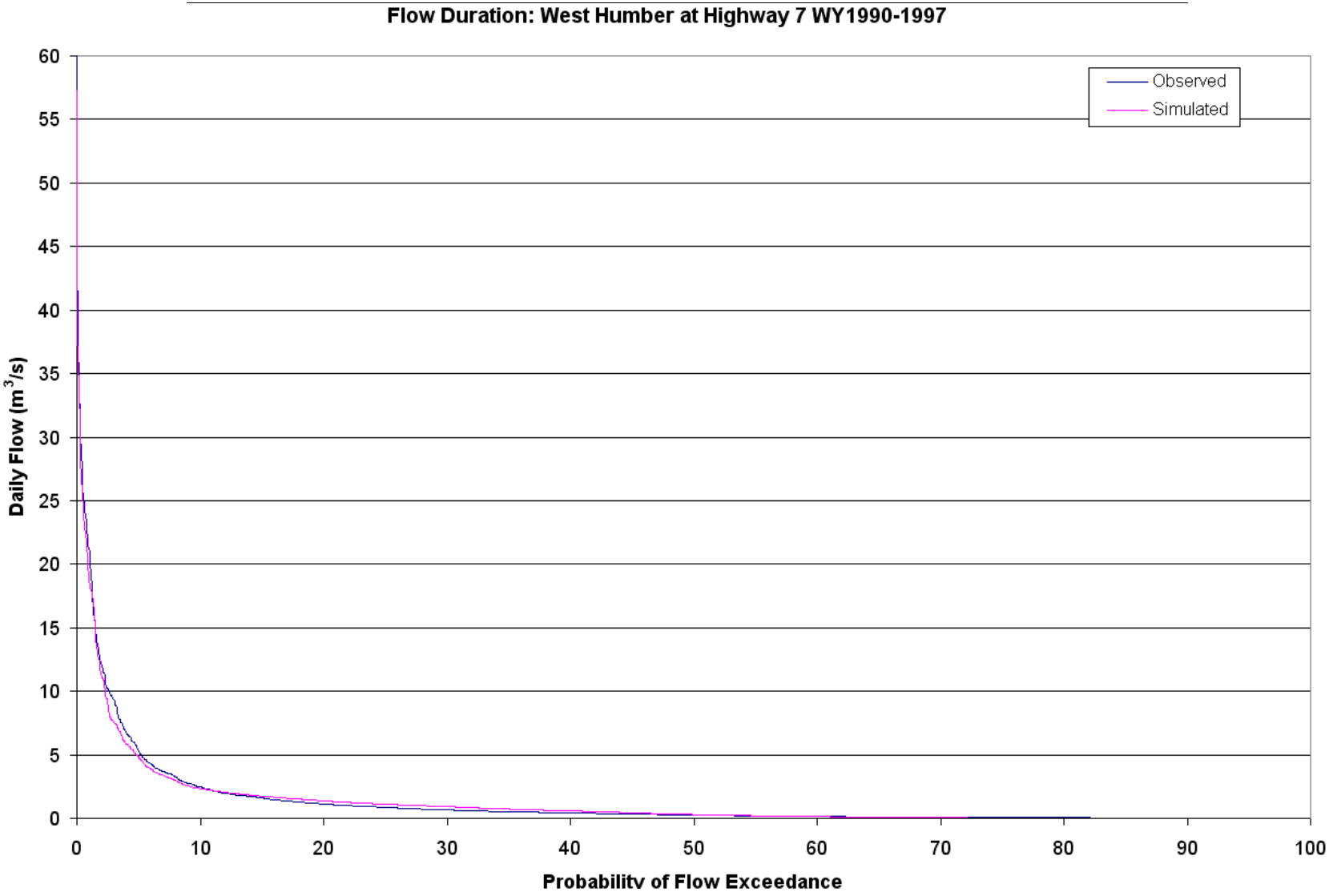

Figure C2-15: Flow Duration Curve for West Humber at Highway 7.

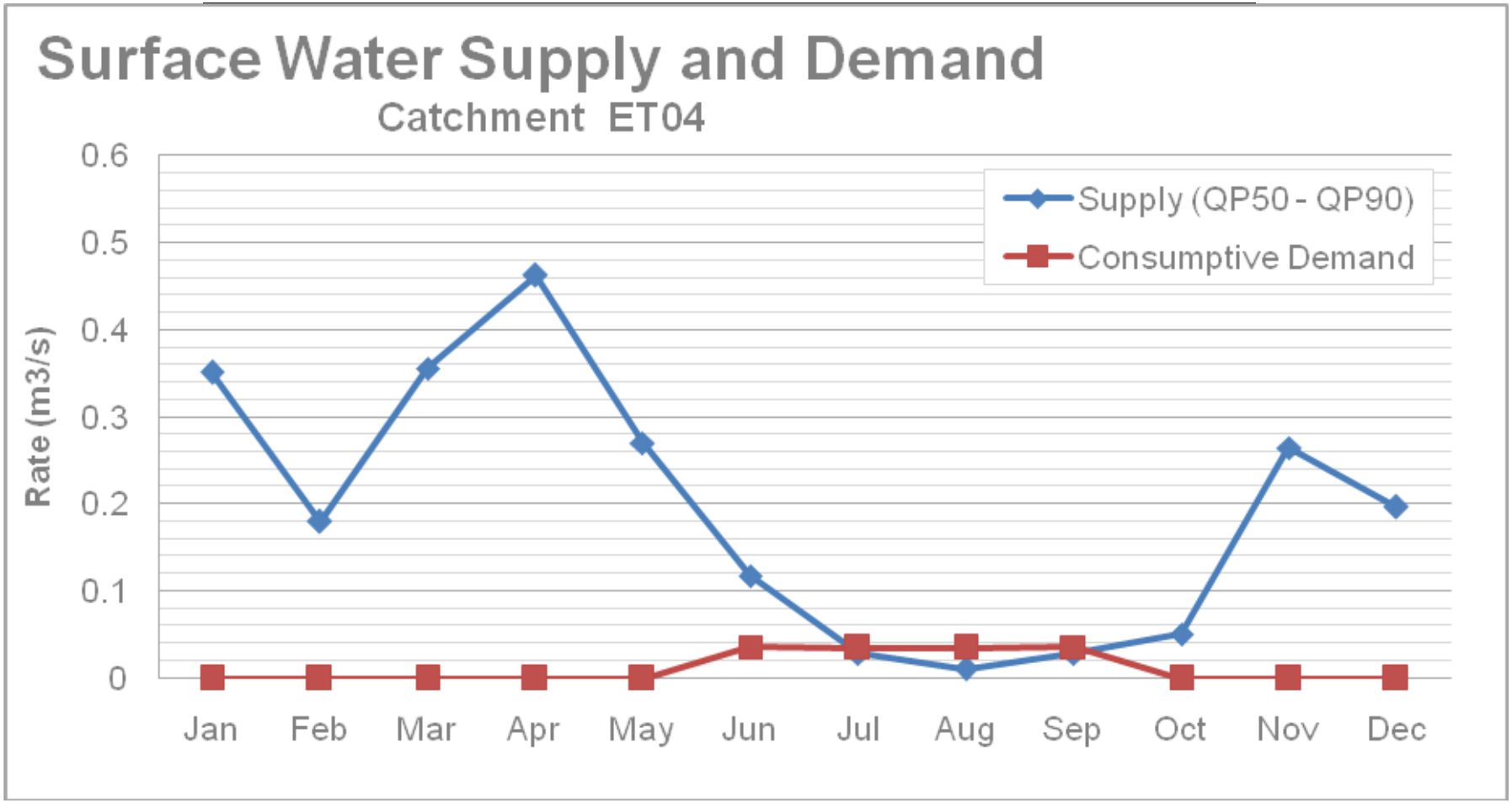

Figure C2-16: Annual Surface Water Supply and Demand for Subwatershed ET04

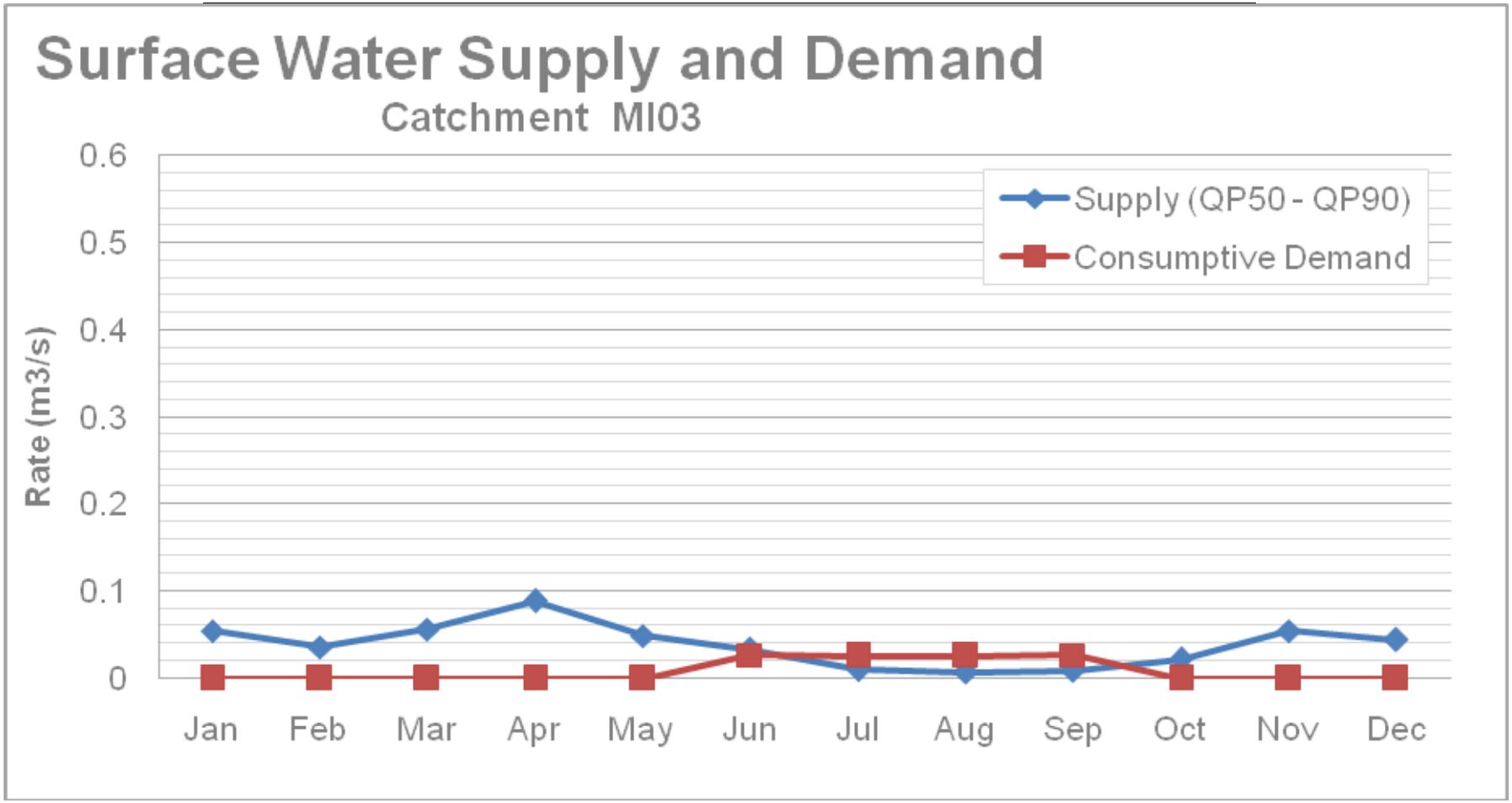

Figure C2-17: Annual Surface Water Supply and Demand for Subwatershed MI03

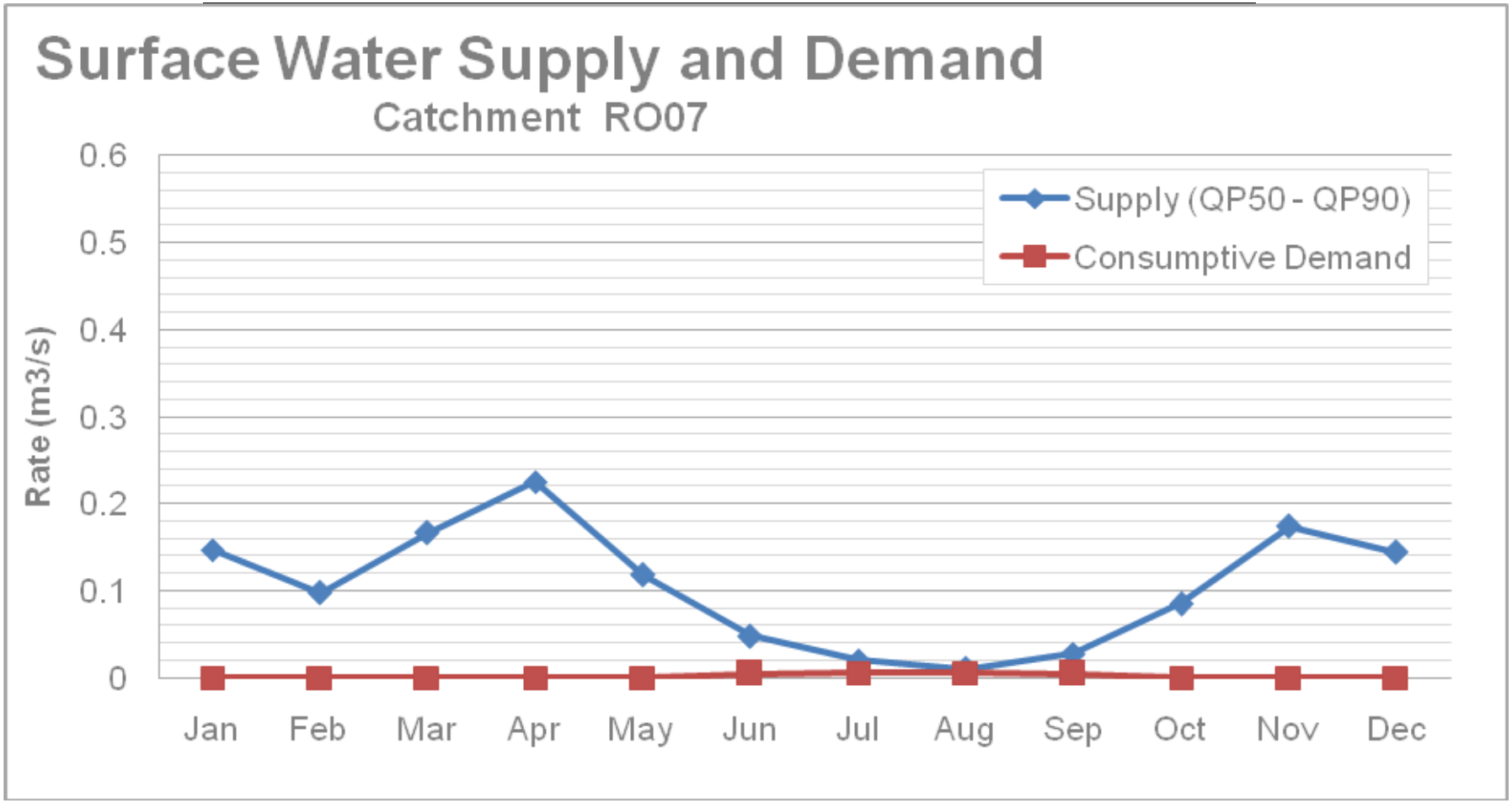

Figure C2-18: Annual Surface Water Supply and Demand for Subwatershed RO07

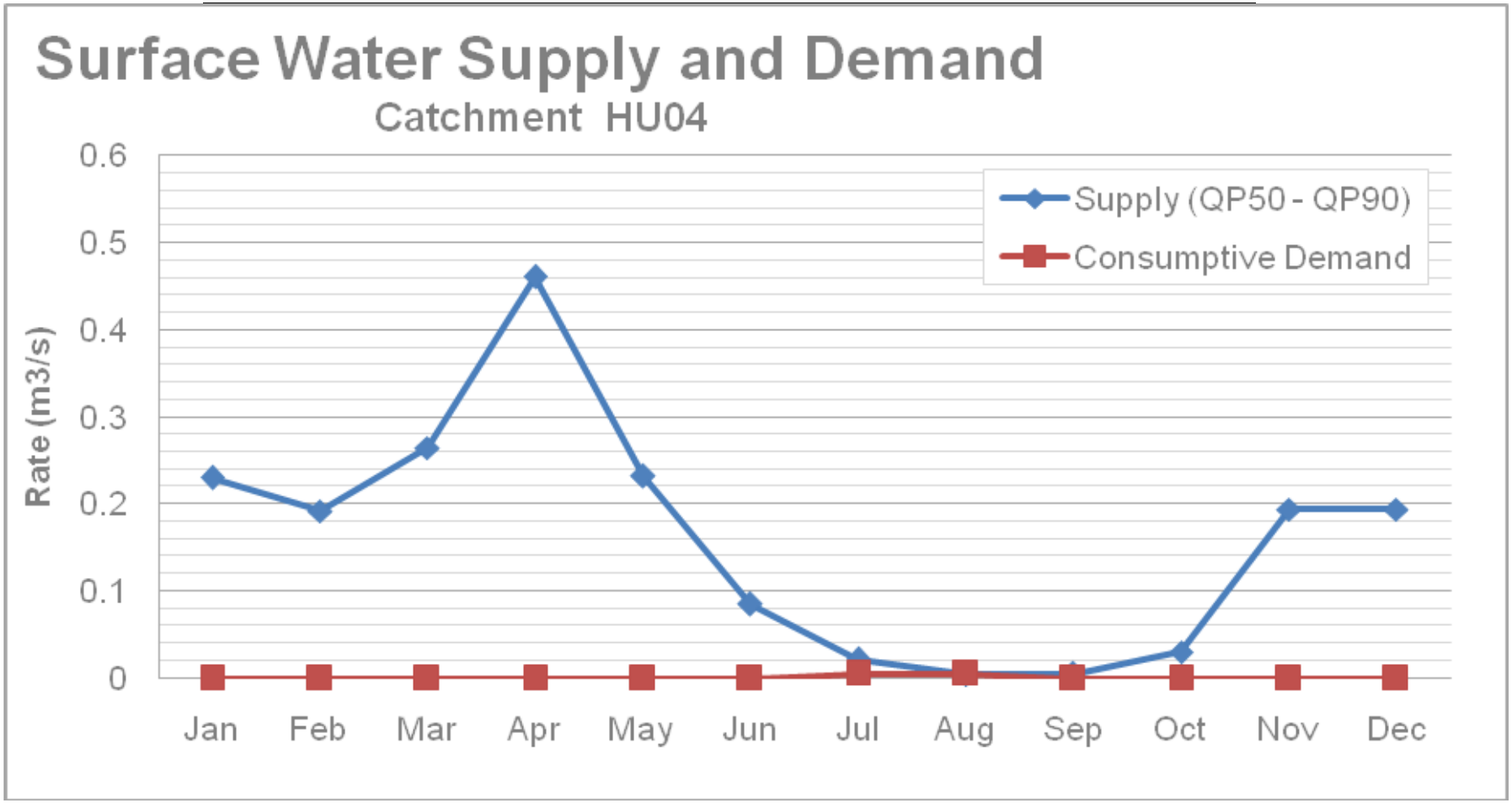

Figure C2-19: Annual Surface Water Supply and Demand for Subwatershed HU04

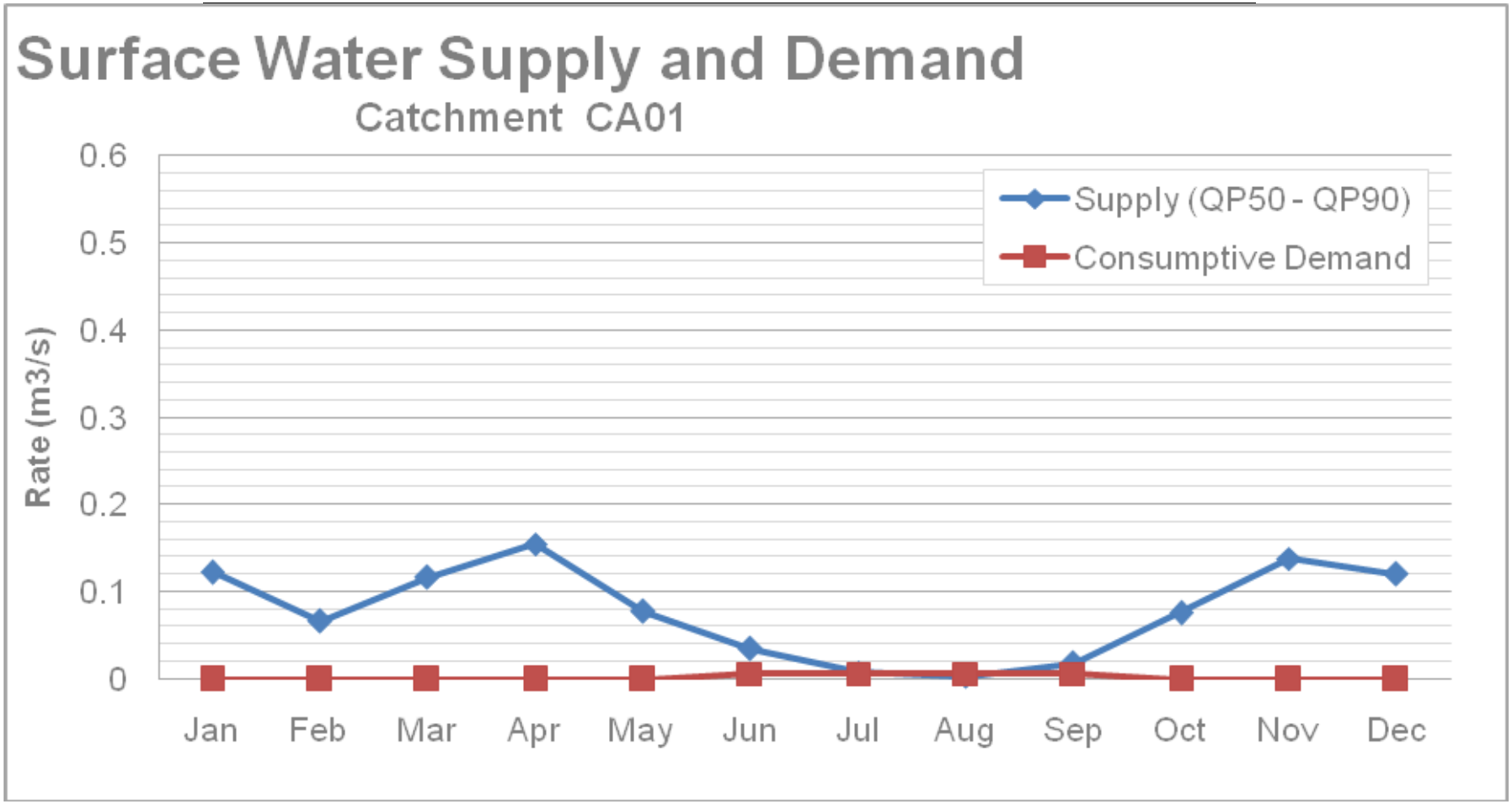

Figure C2-20: Annual Surface Water Supply and Demand for Subwatershed CA01

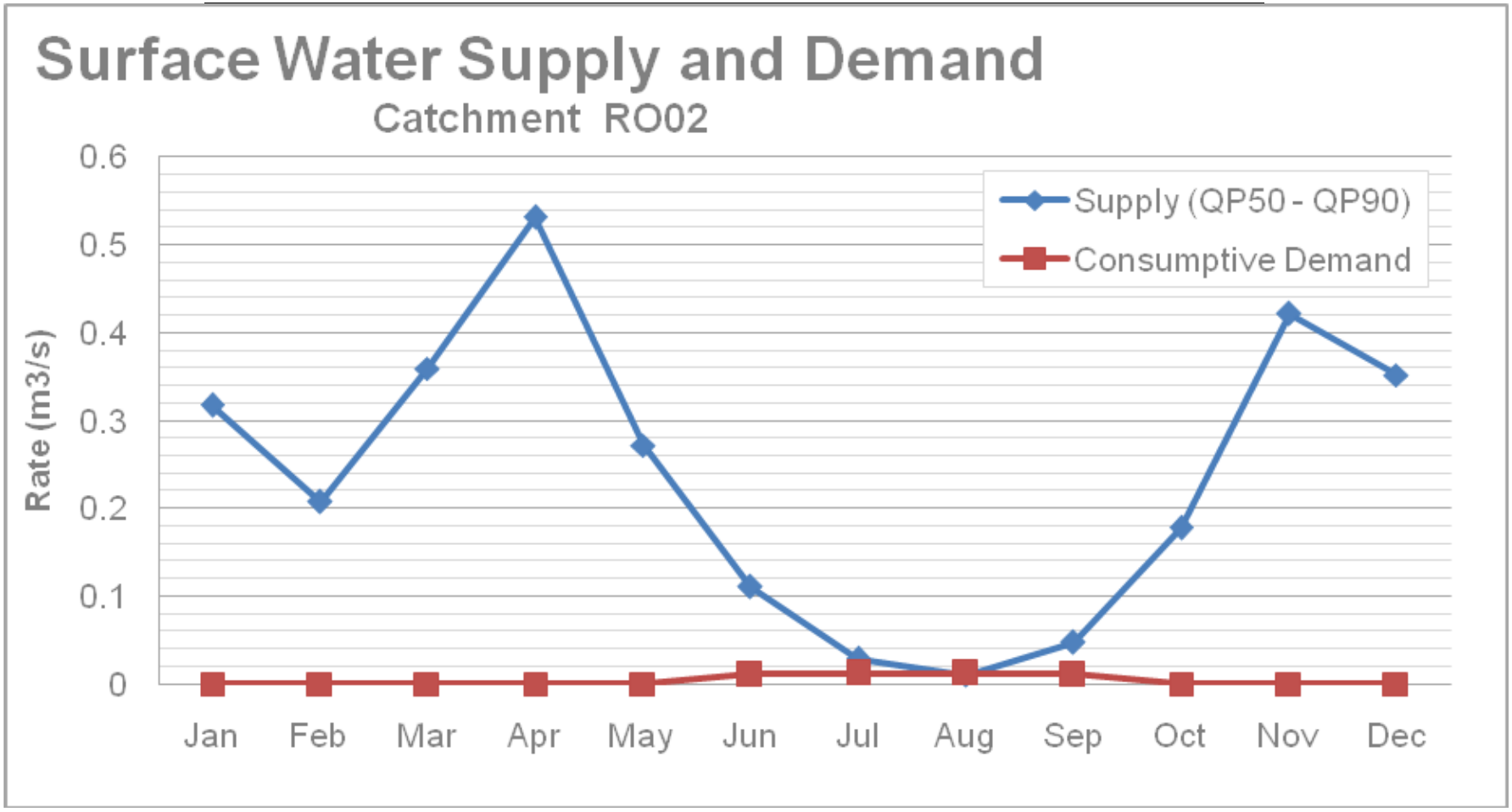

Figure C2-21: Annual Surface Water Supply and Demand for Subwatershed RO02

C2.6 Assessment of Required Storage

Additional analysis was performed on the >100% catchments, to determine the cause of these results, where irrigation storage ponds / reservoirs were examined. This analysis was to investigate if these storage features had sufficient storage to account for the demand of water that is over and above the estimated in-stream supply. While it was not possible, in the scope of a Tier 1 Assessment, to complete this analysis for all surface water users, it was felt that a representative sample should be explored in more detail to validate catchments where demand is greater than available supply.

In this evaluation, the total demand was subtracted from the available supply for each month. Where the supply is less than the demand, a negative number is the result. These are then summed and converted to a total volume (m^3), which represents the total water required to meet a specific user's demand over and above available in-stream supply. This volume is then calculated to a 'required depth of storage', based on the surface area of the storage feature. If the required depth of storage was calculated to be more than 2.5 m (based on typical golf course pond depths) there may be an error in the demand or supply estimates.

This analysis was performed for catchments CA01 and HU04 as both of these catchments were calculated as having demand >100% of supply and both catchments had only one (primary) surface water user. **Table C2-5** and **Table C2-6** show the results of these calculations. In both instances, the required depth of storage was low, at 16cm and 14cm, respectively. These results confirm that any demand greater than available supply can be accounted for by the storage feature(s).

Table C2-5: Required Depth of Storage Calculations – Catchment CA01

CA01				
Month	**Demand**	**Supply**	**Supply - Demand**	**m^3 / Month**
Jan	0	0.123	0.123	0
Feb	0	0.067	0.067	0
Mar	0	0.117	0.117	0
Apr	0	0.155	0.155	0
May	0	0.078	0.078	0
Jun	0.006	0.035	0.029	0
Jul	0.006	0.008	0.002	0
Aug	0.006	0.003	-0.003	7290
Sep	0.006	0.018	0.012	0
Oct	0	0.077	0.077	0
Nov	0	0.138	0.138	0
Dec	0	0.120	0.120	0
			Total Storage Required (m^3)	**7,290**

Required Storage Depth for CA01

Pond Area:
45,308m^2

Required Storage:
7,290 m^3

Required Depth of Storage:
0.16m

Table C2-6: Required Depth of Storage Calculations – Catchment HU04

HU04				
Month	**Demand**	**Supply**	**Supply - Demand**	**m^3 / Month**
Jan	0	0.230	0.230	0
Feb	0	0.192	0.192	0
Mar	0	0.265	0.265	0
Apr	0	0.461	0.461	0
May	0	0.232	0.232	0
Jun	0	0.085	0.085	0
Jul	0.005	0.022	0.017	0
Aug	0.005	0.004	-0.001	3036
Sep	0	0.005	0.005	0
Oct	0	0.030	0.030	0
Nov	0	0.194	0.194	0
Dec	0	0.194	0.194	0
			Total Storage Required (m^3)	**3,036**

Required Storage Depth for HU04

Pond Area:
22,415m^2

Required Storage:
3,036 m^3

Required Depth of Storage:
0.14m

C2.7 GROUNDWATER STRESS ASSESSMENT

C2.7.1 CALCULATIONS

The groundwater stress assessment calculations are summarized in **Table C2-7** to **Table C2-12** and the groundwater usage data are provided in **Table C2-13.** The current and future water use by subwatershed is provided in **Table C2-14, Table C2-14** and **Table C2-15**, respectively. The complete stress assessment results by month for current conditions are provided in **Table C2-16** to **Table C2-27.** The stress assessment results under future conditions are provided by month in **Table C2-28** to **Table C2-39.**

Further details are provided in the Tier 1 Water Budget report issued for the TRSPA in 2010 (TRCA, 2010).

C2.7.2 INPUTS TO STRESS ASSESSMENT CALCULATIONS

The inputs from the MODFLOW groundwater model to the groundwater stress assessment calculations include estimates of:

- Groundwater recharge (Q_R in stress assessment tables);
- Groundwater discharge ($Q_{Reserve}$ in stress assessment tables); and
- Groundwater inflows to each subwatershed (Q_{IN} in stress assessment tables).

Groundwater Inflows

Groundwater inflows for each subwatershed are represented as the Q_{IN} values in the stress assessment tables.

C2.8 Stress Assessment Summary

This study meets all of the Tier 1 requirements for all of the TRSPA. It includes an enhanced understanding of water use because of TRCA's water use field survey, and enhanced stress calculations because of the complex surface and groundwater models used in the analysis. MNRF has agreed that this assessment meets the main requirements of a Tier 2 Assessment for Whitchurch-Stouffville area. Although a 2-year drought simulation for the Whitchurch-Stouffville area was not completed, the results of this scenario would only increase the calculated stress levels provided in this study. The final maps are presented in **Chapter 3** of the body of this Assessment Report.

Based on this Tier 2 analysis, the Whitchurch-Stouffville area, which includes portions of two subwatersheds (Little Rouge Creek and Stouffville/Ressor Creeks) is recommended for further assessment at the Tier 3 level. This area contains the wellheads for the Whitchurch-Stouffville municipal groundwater supply wells. Although the 2-year drought simulation was not completed for these subwatersheds, the calculated stress levels for these watersheds are above thresholds for the current conditions. Therefore, with the agreement of the MNRF, a Tier 3 or local area stress assessment should be completed in this area. The Tier 3 analysis will be led by the Region of York in partnership with TRCA and the Region of Durham. The project will examine cross-watershed groundwater flow and local recharge in more detail, as well as water use and ten-year drought scenarios.

Table C2-7: Groundwater Stress Assessment Summary (Current)

Watershed	Sub-watershed	Stress Level			Uncertainty	Municipal Water Supply	Tier 3 Study Required
		Annual	Monthly	Final			
Etobicoke	ET01	Low	Low	Low	Low	No	No
	ET02	Low	Low	Low	Low	No	No
	ET03	Low	Low	Low	Low	No	No
	ET04	Low	Low	Low	Low	No	No
Mimico	MI01	Low	Low	Low	Low	No	No
	MI02	Low	Low	Low	Low	No	No
	MI03	Low	Low	Low	Low	No	No
Humber	HU01	Low	Low	Low	Low	No	No
	HU02	Low	Low	Low	Low	No	No
	HU03	Low	Low	Low	Low	No	No
	HU04	Low	Low	Low	Low	No	No
	HU05	Low	Low	Low	Low	**Yes**	No
	HU06	Low	Low	Low	Low	**Yes**	No
	HU07	Low	Low	Low	Low	**Yes**	No
	HU08	Low	Low	Low	Low	**Yes**	No
	HU09	Low	Low	Low	Low	No	No
	HU10	Low	Low	Low	Low	**Yes**	No
	HU11	Low	Low	Low	Low	**Yes**	No
	HU12	Low	Low	Low	Low	**Yes**	No
Don	DO01	Low	Low	Low	Low	No	No
	DO02	Low	Low	Low	Low	No	No
	DO03	Low	Low	Low	Low	No	No
	DO04	Low	Low	Low	Low	No	No
	DO05	Low	Low	Low	Low	No	No
	DO06	**Moderate**	Low	**Moderate**	Low	No	No
	DO07	Low	Low	Low	Low	No	No
Highland	HI01	Low	Low	Low	Low	No	No
	HI02	Low	Low	Low	Low	No	No
	HI03	Low	Low	Low	Low	No	No
	HI04	Low	Low	Low	Low	No	No
Rouge	RO01	Low	Low	Low	Low	No	No
	RO02	**Moderate**	Low	**Moderate**	Low	**Yes**	**Yes**
	RO03	Low	Low	Low	Low	No	No
	RO04	Low	Low	Low	Low	No	No
	RO05	Low	Low	Low	Low	No	No
	RO06	Low	Low	Low	Low	No	No
	RO07	Low	Low	Low	Low	No	No
Petticoat	PE01	Low	Low	Low	Low	No	No
Frenchman's Bay	FR01	Low	Low	Low	Low	No	No
Duffins	DU01	Low	Low	Low	Low	No	No
	DU02	Low	Low	Low	Low	No	No
	DU03	Low	Low	Low	Low	No	No
	DU04	Low	Low	Low	Low	No	No
	DU05	Low	Low	Low	Low	No	No
	DU06	**Moderate**	Low	**Moderate**	Low	**Yes**	**Yes**
Carruthers	CA01	Low	Low	Low	Low	No	No
Lake Ontario	LO01	**Significant**	**Significant**	**Significant**	Low	No	No
	LO02	**Moderate**	Low	**Moderate**	Low	No	No
	LO03	**Moderate**	Low	**Moderate**	Low	No	No
	LO04	Low	Low	Low	Low	No	No
	LO05	Low	Low	Low	Low	No	No
	LO06	Low	Low	Low	Low	No	No

Table C2-8: Groundwater Stress Assessment Summary (Future)

Watershed	Sub-watershed	Stress Level			Uncertainty	Municipal Water Supply	Tier 3 Refinement Required
		Annual	Monthly	Final			
Etobicoke	ET01	Low	Low	Low	Low	No	No
	ET02	Low	Low	Low	Low	No	No
	ET03	Low	Low	Low	Low	No	No
	ET04	Low	Low	Low	Low	No	No
Mimico	MI01	Low	Low	Low	Low	No	No
	MI02	Low	Low	Low	Low	No	No
	MI03	Low	Low	Low	Low	No	No
Humber	HU01	Low	Low	Low	Low	No	No
	HU02	Low	Low	Low	Low	No	No
	HU03	Low	Low	Low	Low	No	No
	HU04	Low	Low	Low	Low	No	No
	HU05	Low	Low	Low	Low	**Yes**	No
	HU06	Low	Low	Low	Low	**Yes**	No
	HU07	Low	Low	Low	Low	**Yes**	No
	HU08	Low	Low	Low	Low	**Yes**	No
	HU09	Low	Low	Low	Low	No	No
	HU10	Low	Low	Low	Low	**Yes**	No
	HU11	Low	Low	Low	Low	**Yes**	No
	HU12	Low	Low	Low	Low	**Yes**	No
Don	DO01	Low	Low	Low	Low	No	No
	DO02	Low	Low	Low	Low	No	No
	DO03	Low	Low	Low	Low	No	No
	DO04	Low	Low	Low	Low	No	No
	DO05	Low	Low	Low	Low	No	No
	DO06	**Moderate**	Low	**Moderate**	Low	No	No
	DO07	Low	Low	Low	Low	No	No
Highland	HI01	Low	Low	Low	Low	No	No
	HI02	Low	Low	Low	Low	No	No
	HI03	Low	Low	Low	Low	No	No
	HI04	Low	Low	Low	Low	No	No
Rouge	RO01	Low	Low	Low	Low	No	No
	RO02	**Moderate**	Low	**Moderate**	Low	**Yes**	**Yes**
	RO03	Low	Low	Low	Low	No	No
	RO04	Low	Low	Low	Low	No	No
	RO05	Low	Low	Low	Low	No	No
	RO06	Low	Low	Low	Low	No	No
	RO07	Low	Low	Low	Low	No	No
Petticoat	PE01	Low	Low	Low	Low	No	No
Frenchman's Bay	FR01	Low	Low	Low	Low	No	No
Duffins	DU01	Low	Low	Low	Low	No	No
	DU02	Low	Low	Low	Low	No	No
	DU03	Low	Low	Low	Low	No	No
	DU04	Low	Low	Low	Low	No	No
	DU05	Low	Low	Low	Low	No	No
	DU06	**Moderate**	Low	**Moderate**	Low	**Yes**	**Yes**
Carruthers	CA01	Low	Low	Low	Low	No	No
Lake Ontario	LO01	**Significant**	**Significant**	**Significant**	Low	No	No
	LO02	**Moderate**	Low	**Moderate**	Low	No	No
	LO03	**Moderate**	Low	**Moderate**	Low	No	No
	LO04	Low	Low	Low	Low	No	No
	LO05	Low	Low	Low	Low	No	No
	LO06	Low	Low	Low	Low	No	No

Table C2-9: Average Annual Groundwater Demand (Current)

Watershed	Sub-watershed	Subshed Area (km^2)	Q_R (m^3/s)	Q_R (mm/yr)	Q_{IN} (m^3/s)	Q_{Supply} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assignment
Etobicoke	ET01	34	0.078	72	0.072	0.151	0.012	0.000	0%	Low
	ET02	25	0.067	84	0.041	0.108	0.007	0.000	0%	Low
	ET03	50	0.181	114	0.073	0.254	0.018	0.001	0%	Low
	ET04	103	0.338	104	0.091	0.429	0.028	0.003	1%	Low
Mimico	MI01	42	0.104	79	0.031	0.136	0.011	0.000	0%	Low
	MI02	14	0.038	87	0.022	0.060	0.003	0.000	0%	Low
	MI03	23	0.060	82	0.026	0.087	0.005	0.000	0%	Low
Humber	HU01	89	0.261	93	0.272	0.533	0.037	0.029	6%	Low
	HU02	61	0.198	103	0.133	0.331	0.017	0.001	0%	Low
	HU03	98	0.294	95	0.144	0.438	0.028	0.002	1%	Low
	HU04	107	0.281	83	0.117	0.398	0.024	0.002	1%	Low
	HU05	92	0.250	85	0.280	0.529	0.037	0.028	6%	Low
	HU06	72	0.249	109	0.513	0.761	0.046	0.009	1%	Low
	HU07	94	0.637	214	0.254	0.891	0.018	0.025	3%	Low
	HU08	31	0.203	207	0.212	0.415	0.009	0.006	2%	Low
	HU09	65	0.405	197	0.141	0.546	0.025	0.010	2%	Low
	HU10	48	0.260	172	0.349	0.610	0.042	0.002	0%	Low
	HU11	47	0.351	235	0.176	0.527	0.024	0.004	1%	Low
	HU12	108	0.942	275	0.207	1.149	0.107	0.003	0%	Low
Don	DO01	38	0.137	113	0.121	0.258	0.017	0.001	0%	Low
	DO02	34	0.112	104	0.139	0.250	0.002	0.000	0%	Low
	DO03	54	0.182	107	0.387	0.569	0.028	0.003	1%	Low
	DO04	64	0.249	123	0.295	0.544	0.039	0.004	1%	Low
	DO05	58	0.209	113	0.270	0.479	0.013	0.032	7%	Low
	DO06	63	0.328	163	0.255	0.583	0.031	0.080	**15%**	**Moderate**
	DO07	42	0.164	124	0.232	0.395	0.012	0.001	0%	Low
Highland	HI01	9	0.028	98	0.049	0.076	0.000	0.000	0%	Low
	HI02	11	0.032	93	0.121	0.153	0.010	0.000	0%	Low
	HI03	50	0.182	116	0.072	0.254	0.008	0.000	0%	Low
	HI04	36	0.127	112	0.140	0.267	0.010	0.000	0%	Low
Rouge	RO01	4	0.010	89	0.041	0.051	0.003	0.000	0%	Low
	RO02	114	0.443	122	0.397	0.840	0.040	0.111	**14%**	**Moderate**
	RO03	64	0.222	110	0.319	0.541	0.030	0.001	0%	Low
	RO04	45	0.145	103	0.236	0.381	0.016	0.001	0%	Low
	RO05	40	0.205	162	0.226	0.431	0.023	0.007	2%	Low
	RO06	31	0.117	121	0.283	0.400	0.012	0.005	1%	Low
	RO07	41	0.205	159	0.338	0.543	0.019	0.010	2%	Low
Petticoat	PE01	24	0.082	108	0.097	0.180	0.006	0.000	0%	Low
Frenchman's Bay	FR01	25	0.090	114	0.036	0.126	0.004	0.000	0%	Low
Duffins	DU01	24	0.087	112	0.037	0.123	0.005	0.000	0%	Low
	DU02	53	0.190	113	0.284	0.474	0.026	0.020	4%	Low
	DU03	44	0.150	108	0.317	0.467	0.031	0.005	1%	Low
	DU04	63	0.362	183	0.355	0.717	0.044	0.018	3%	Low
	DU05	60	0.370	194	0.268	0.638	0.022	0.022	4%	Low
	DU06	40	0.192	154	0.160	0.353	0.010	0.045	**13%**	**Moderate**
Carruthers	CA01	39	0.131	106	0.109	0.240	0.016	0.004	2%	Low
Lake Ontario	LO01	24	0.064	84	0.009	0.073	0.000	0.046	**63%**	**Significant**
	LO02	40	0.159	126	0.030	0.189	0.000	0.022	**11%**	**Moderate**
	LO03	24	0.062	82	0.082	0.143	0.000	0.024	**16%**	**Moderate**
	LO04	16	0.052	101	0.075	0.127	0.000	0.000	0%	Low
	LO05	5	0.017	108	0.011	0.027	0.000	0.000	0%	Low
	LO06	3	0.012	117	0.009	0.021	0.000	0.000	0%	Low

Notes

All water supply and demand numbers are presented in m^3/s.

$Q_{Reserve}$ is calculated as 10% of the groundwater discharge

Table C2-10: Average Annual Groundwater Demand (Future)

Watershed	Sub-watershed	Subshed Area (km^2)	Q_R (m^3/s)	Q_R (mm/yr)	Q_{IN} (m^3/s)	Q_{Supply} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assignment
Etobicoke	ET01	34	0.078	72	0.072	0.151	0.012	0.000	0.0%	Low
	ET02	25	0.067	84	0.041	0.108	0.007	0.000	0.0%	Low
	ET03	50	0.181	114	0.073	0.254	0.018	0.001	0.3%	Low
	ET04	103	0.338	104	0.091	0.429	0.028	0.003	0.7%	Low
Mimico	MI01	42	0.104	79	0.031	0.136	0.011	0.000	0.0%	Low
	MI02	14	0.038	87	0.022	0.060	0.003	0.000	0.0%	Low
	MI03	23	0.060	82	0.026	0.087	0.005	0.000	0.0%	Low
Humber	HU01	89	0.261	93	0.272	0.533	0.037	0.029	5.8%	Low
	HU02	61	0.198	103	0.133	0.331	0.017	0.001	0.4%	Low
	HU03	98	0.294	95	0.144	0.438	0.028	0.002	0.6%	Low
	HU04	107	0.281	83	0.117	0.398	0.024	0.002	0.5%	Low
	HU05	92	0.250	85	0.280	0.529	0.037	0.011	2.2%	Low
	HU06	72	0.249	109	0.513	0.761	0.046	0.008	1.1%	Low
	HU07	94	0.637	214	0.254	0.891	0.018	0.009	1.0%	Low
	HU08	31	0.203	207	0.212	0.415	0.009	0.010	2.4%	Low
	HU09	65	0.405	197	0.141	0.546	0.025	0.010	2.0%	Low
	HU10	48	0.260	172	0.349	0.610	0.042	0.007	1.2%	Low
	HU11	47	0.351	235	0.176	0.527	0.024	0.008	1.6%	Low
	HU12	108	0.942	275	0.207	1.149	0.107	0.003	0.3%	Low
Don	DO01	38	0.137	113	0.121	0.258	0.017	0.001	0.2%	Low
	DO02	34	0.112	104	0.139	0.250	0.002	0.000	0.0%	Low
	DO03	54	0.182	107	0.387	0.569	0.028	0.003	0.6%	Low
	DO04	64	0.249	123	0.295	0.544	0.039	0.004	0.7%	Low
	DO05	58	0.209	113	0.270	0.479	0.013	0.032	6.8%	Low
	DO06	63	0.328	163	0.255	0.583	0.031	0.080	**14.5%**	**Moderate**
	DO07	42	0.164	124	0.232	0.395	0.012	0.001	0.4%	Low
Highland	HI01	9	0.028	98	0.049	0.076	0.000	0.000	0.0%	Low
	HI02	11	0.032	93	0.121	0.153	0.010	0.000	0.0%	Low
	HI03	50	0.182	116	0.072	0.254	0.008	0.000	0.0%	Low
	HI04	36	0.127	112	0.140	0.267	0.010	0.000	0.0%	Low
Rouge	RO01	4	0.010	89	0.041	0.051	0.003	0.000	0.0%	Low
	RO02	114	0.443	122	0.397	0.840	0.040	0.114	**14.3%**	**Moderate**
	RO03	64	0.222	110	0.319	0.541	0.030	0.001	0.2%	Low
	RO04	45	0.145	103	0.236	0.381	0.016	0.001	0.4%	Low
	RO05	40	0.205	162	0.226	0.431	0.023	0.007	1.8%	Low
	RO06	31	0.117	121	0.283	0.400	0.012	0.005	1.3%	Low
	RO07	41	0.205	159	0.338	0.543	0.019	0.010	1.8%	Low
Petticoat	PE01	24	0.082	108	0.097	0.180	0.006	0.000	0.2%	Low
Frenchman's Bay	FR01	25	0.090	114	0.036	0.126	0.004	0.000	0.1%	Low
Duffins	DU01	24	0.087	112	0.037	0.123	0.005	0.000	0.2%	Low
	DU02	53	0.190	113	0.284	0.474	0.026	0.020	4.4%	Low
	DU03	44	0.150	108	0.317	0.467	0.031	0.005	1.1%	Low
	DU04	63	0.362	183	0.355	0.717	0.044	0.018	2.7%	Low
	DU05	60	0.370	194	0.268	0.638	0.022	0.022	3.6%	Low
	DU06	40	0.192	154	0.160	0.353	0.010	0.057	**16.6%**	**Moderate**
Carruthers	CA01	39	0.131	106	0.109	0.240	0.016	0.004	1.7%	Low
Lake Ontario	LO01	24	0.064	84	0.009	0.073	0.000	0.046	**62.7%**	**Significant**
	LO02	40	0.159	126	0.030	0.189	0.000	0.022	**11.5%**	**Moderate**
	LO03	24	0.062	82	0.082	0.143	0.000	0.024	**16.4%**	**Moderate**
	LO04	16	0.052	101	0.075	0.127	0.000	0.000	0.0%	Low
	LO05	5	0.017	108	0.011	0.027	0.000	0.000	0.0%	Low
	LO06	3	0.012	117	0.009	0.021	0.000	0.000	0.0%	Low

Notes

All water supply and demand numbers are presented in m^3/s.

$Q_{Reserve}$ is calculated as 10% of the groundwater discharge

Table C2-11: Monthly Groundwater Stress Assessment (Current)

Watershed	Sub-watershed	Groundwater % Demand By Month												Max. % Demand	Monthly Max. Stress
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Etobicoke	ET01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET04	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
Mimico	MI01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	MI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	MI03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Humber	HU01	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	Low
	HU02	0%	0%	0%	0%	0%	8%	8%	8%	8%	0%	0%	0%	8%	Low
	HU03	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
	HU04	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
	HU05	5%	5%	5%	5%	5%	5%	11%	11%	5%	5%	5%	5%	11%	Low
	HU06	1%	1%	1%	1%	1%	1%	2%	2%	1%	1%	1%	1%	2%	Low
	HU07	2%	3%	2%	3%	2%	3%	4%	4%	3%	2%	3%	2%	4%	Low
	HU08	1%	1%	1%	1%	1%	3%	3%	3%	3%	1%	1%	1%	3%	Low
	HU09	1%	1%	1%	1%	1%	1%	8%	8%	1%	1%	1%	1%	8%	Low
	HU10	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	1%	Low
	HU11	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
	HU12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Don	DO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DO02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DO03	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
	DO04	0%	0%	0%	0%	0%	2%	2%	2%	2%	0%	0%	0%	2%	Low
	DO05	6%	6%	6%	6%	6%	9%	9%	9%	9%	6%	6%	6%	9%	Low
	DO06	14%	15%	14%	14%	14%	16%	16%	16%	16%	14%	14%	14%	16%	Low
	DO07	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
Highland	HI01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Rouge	RO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	RO02	12%	13%	12%	12%	12%	14%	21%	21%	14%	12%	12%	12%	21%	Low
	RO03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	RO04	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	Low
	RO05	1%	1%	1%	1%	1%	2%	4%	4%	2%	1%	1%	1%	4%	Low
	RO06	1%	1%	1%	1%	1%	3%	3%	3%	3%	1%	1%	1%	3%	Low
	RO07	0%	0%	0%	0%	0%	5%	5%	5%	5%	0%	0%	0%	5%	Low
Petticoat	PE01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Frenchman's Bay	FR01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Duffins	DU01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DU02	4%	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	5%	Low
	DU03	0%	0%	0%	0%	0%	2%	4%	4%	2%	0%	0%	0%	4%	Low
	DU04	10%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	11%	Low
	DU05	1%	1%	1%	1%	1%	10%	10%	10%	10%	1%	1%	1%	10%	Low
	DU06	11%	13%	11%	12%	13%	15%	15%	15%	15%	13%	14%	11%	15%	Low
Carruthers	CA01	0%	0%	0%	0%	0%	1%	8%	8%	1%	0%	0%	0%	8%	Low
Lake Ontario	LO01	61%	68%	61%	64%	61%	64%	61%	61%	64%	61%	64%	61%	68%	Significant
	LO02	11%	12%	11%	12%	11%	12%	11%	11%	12%	11%	12%	11%	12%	Low
	LO03	13%	15%	13%	14%	13%	23%	22%	22%	23%	13%	14%	13%	23%	Low
	LO04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	LO05	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	LO06	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low

Table C2-12: Monthly Groundwater Stress Assessment (Future)

Watershed	Sub-watershed	Groundwater % Demand By Month												Max. % Demand	Monthly Max. Stress
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Etobicoke	ET01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	ET04	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
Mimico	MI01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	MI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	MI03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Humber	HU01	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	Low
	HU02	0%	0%	0%	0%	0%	8%	8%	8%	8%	0%	0%	0%	8%	Low
	HU03	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
	HU04	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
	HU05	1%	1%	1%	1%	1%	2%	7%	7%	2%	1%	1%	1%	7%	Low
	HU06	1%	1%	1%	1%	1%	1%	2%	2%	1%	1%	1%	1%	2%	Low
	HU07	1%	1%	1%	1%	1%	1%	2%	2%	1%	1%	1%	1%	2%	Low
	HU08	2%	2%	2%	2%	2%	4%	4%	4%	4%	2%	2%	2%	4%	Low
	HU09	1%	1%	1%	1%	1%	1%	8%	8%	1%	1%	1%	1%	8%	Low
	HU10	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
	HU11	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	Low
	HU12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Don	DO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DO02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DO03	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	Low
	DO04	0%	0%	0%	0%	0%	2%	2%	2%	2%	0%	0%	0%	2%	Low
	DO05	6%	6%	6%	6%	6%	9%	9%	9%	9%	6%	6%	6%	9%	Low
	DO06	14%	15%	14%	14%	14%	16%	16%	16%	16%	14%	14%	14%	16%	Low
	DO07	0%	0%	0%	0%	0%	1%	1%	1%	1%	0%	0%	0%	1%	Low
Highland	HI01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI02	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	HI04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Rouge	RO01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	RO02	12%	13%	12%	12%	12%	14%	22%	22%	14%	12%	13%	12%	22%	Low
	RO03	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	RO04	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	1%	Low
	RO05	1%	1%	1%	1%	1%	2%	4%	4%	2%	1%	1%	1%	4%	Low
	RO06	1%	1%	1%	1%	1%	3%	3%	3%	3%	1%	1%	1%	3%	Low
	RO07	0%	0%	0%	0%	0%	5%	5%	5%	5%	0%	0%	0%	5%	Low
Petticoat	PE01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Frenchman's Bay	FR01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
Duffins	DU01	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	DU02	4%	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	5%	Low
	DU03	0%	0%	0%	0%	0%	2%	4%	4%	2%	0%	0%	0%	4%	Low
	DU04	10%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	11%	Low
	DU05	1%	1%	1%	1%	1%	10%	10%	10%	10%	1%	1%	1%	10%	Low
	DU06	15%	17%	15%	15%	17%	18%	18%	18%	18%	17%	17%	15%	18%	Low
Carruthers	CA01	0%	0%	0%	0%	0%	1%	8%	8%	1%	0%	0%	0%	8%	Low
Lake Ontario	LO01	61%	68%	61%	64%	61%	64%	61%	61%	64%	61%	64%	61%	68%	Significant
	LO02	11%	12%	11%	12%	11%	12%	11%	11%	12%	11%	12%	11%	12%	Low
	LO03	13%	15%	13%	14%	13%	23%	22%	22%	23%	13%	14%	13%	23%	Low
	LO04	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	LO05	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low
	LO06	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Low

Table C2-13: Groundwater Usage Data

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
ET02	Commercial	Golf Course Irrigation	85	0.7	60	60
ET03	Lumped Domestic	Lumped Domestic	5,502	0.2	1,100	1,100
ET03	Remediation	Other - Remediation	19,896	1	19,896	19,896
ET04	Agricultural	Nursery	4,145	0.9	3,731	3,731
ET04	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
ET04	Agricultural	Unknown	76	0.8	61	76
ET04	Commercial	Golf Course Irrigation	4,497	0.7	3,148	3,148
ET04	Livestock Watering	Livestock Watering	569	0.3	171	171
ET04	Livestock Watering	Livestock Watering	1,040	0.3	312	312
ET04	Livestock Watering	Livestock Watering	694	0.3	208	208
ET04	Livestock Watering	Livestock Watering	666	0.3	200	200
ET04	Livestock Watering	Livestock Watering	996	0.3	299	299
ET04	Livestock Watering	Livestock Watering	17,962	0.3	5,389	5,389
ET04	Livestock Watering	Livestock Watering	123	0.3	37	37
ET04	Livestock Watering	Livestock Watering	569	0.3	171	171
ET04	Livestock Watering	Livestock Watering	867	0.3	260	260
ET04	Livestock Watering	Livestock Watering	998	0.3	299	299
ET04	Livestock Watering	Livestock Watering	489	0.3	147	147
ET04	Livestock Watering	Livestock Watering	933	0.3	280	280
ET04	Livestock Watering	Livestock Watering	2,277	0.3	683	683
ET04	Livestock Watering	Livestock Watering	868	0.3	260	260
ET04	Livestock Watering	Livestock Watering	691	0.3	207	207
ET04	Livestock Watering	Livestock Watering	933	0.3	280	280
ET04	Livestock Watering	Livestock Watering	1,423	0.3	427	427
ET04	Livestock Watering	Livestock Watering	347	0.3	104	104
ET04	Livestock Watering	Livestock Watering	384	0.3	115	115
ET04	Livestock Watering	Livestock Watering	949	0.3	285	285
ET04	Livestock Watering	Livestock Watering	2,135	0.3	640	640
ET04	Livestock Watering	Livestock Watering	427	0.3	128	128
ET04	Livestock Watering	Livestock Watering	427	0.3	128	128
ET04	Livestock Watering	Livestock Watering	2,170	0.3	651	651
ET04	Livestock Watering	Livestock Watering	199	0.3	60	60
ET04	Livestock Watering	Livestock Watering	933	0.3	280	280
ET04	Livestock Watering	Livestock Watering	949	0.3	285	285
ET04	Livestock Watering	Livestock Watering	139	0.3	42	42
ET04	Livestock Watering	Livestock Watering	1,040	0.3	312	312
ET04	Lumped Domestic	Lumped Domestic	324,396	0.2	64,879	64,879
ET04	Municipal	Water Supply	-	0.2	-	-
ET04	Municipal	Water Supply	-	0.2	-	-
ET04	Unknown	Unknown	76	1	76	76
ET04	Unknown	Unknown	76	1	76	76
ET04	Unknown	Unknown	76	1	76	76
HU01	Commercial	Golf Course Irrigation	1,250	0.7	875	875
HU01	Dewatering	Other - Dewatering	216,750	1	216,750	216,750
HU01	Lumped Domestic	Lumped Domestic	2,232	0.2	446	446
HU01	Remediation	Groundwater	37,960	1	37,960	37,960

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
HU01	Remediation	Other - Remediation	630,720	1	630,720	630,720
HU01	Remediation	Other - Remediation	26,280	1	26,280	26,280
HU02	Commercial	Other - Commercial	19,080	1	19,080	19,080
HU02	Recreational	Aesthetics	35,640	0.7	24,948	24,948
HU03	Agricultural	Nursery	2	0.9	2	2
HU03	Agricultural	Other - Agricultural	450	0.8	360	360
HU03	Commercial	Golf Course Irrigation	11,810	0.7	8,267	8,267
HU03	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
HU03	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
HU03	Livestock Watering	Livestock Watering	569	0.3	171	171
HU03	Livestock Watering	Livestock Watering	1,266	0.3	380	380
HU03	Lumped Domestic	Lumped Domestic	121,333	0.2	24,267	24,267
HU04	Agricultural	Nursery	4,400	0.9	3,960	3,960
HU04	Agricultural	Nursery	3,895	0.9	3,506	3,506
HU04	Agricultural	Nursery	3,895	0.9	3,506	3,506
HU04	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
HU04	Livestock Watering	Livestock Watering	1,370	0.3	411	411
HU04	Livestock Watering	Livestock Watering	1,708	0.3	512	512
HU04	Livestock Watering	Livestock Watering	498	0.3	149	149
HU04	Livestock Watering	Livestock Watering	1,998	0.3	600	600
HU04	Livestock Watering	Livestock Watering	2,666	0.3	800	800
HU04	Livestock Watering	Livestock Watering	1,066	0.3	320	320
HU04	Livestock Watering	Livestock Watering	427	0.3	128	128
HU04	Livestock Watering	Livestock Watering	1,423	0.3	427	427
HU04	Livestock Watering	Livestock Watering	69	0.3	21	21
HU04	Livestock Watering	Livestock Watering	569	0.3	171	171
HU04	Livestock Watering	Livestock Watering	712	0.3	213	213
HU04	Livestock Watering	Livestock Watering	85	0.3	26	26
HU04	Livestock Watering	Livestock Watering	82	0.3	25	25
HU04	Lumped Domestic	Lumped Domestic	141,099	0.2	28,220	28,220
HU05	Agricultural	Nursery	84	0.9	76	76
HU05	Agricultural	Nursery	177	0.9	159	159
HU05	Agricultural	Nursery	3,895	0.9	3,506	3,506
HU05	Agricultural	Other - Agricultural	168,670	0.8	134,936	134,936
HU05	Agricultural	Other - Agricultural	76	0.8	61	61
HU05	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
HU05	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
HU05	Commercial	Cemetery Irrigation	1,248	0.7	873	873
HU05	Commercial	Golf Course Irrigation	10,030	0.7	7,021	7,021
HU05	Commercial	Golf Course Irrigation	24,530	0.7	17,171	17,171
HU05	Livestock Watering	Livestock Watering	829	0.3	249	249
HU05	Livestock Watering	Livestock Watering	260	0.3	78	78
HU05	Livestock Watering	Livestock Watering	374	0.3	112	112
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	59,688	0.3	17,907	17,907
HU05	Livestock Watering	Livestock Watering	1,332	0.3	400	400
HU05	Livestock Watering	Livestock Watering	4,270	0.3	1,281	1,281

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
HU05	Livestock Watering	Livestock Watering	75	0.3	22	22
HU05	Livestock Watering	Livestock Watering	712	0.3	213	213
HU05	Livestock Watering	Livestock Watering	1,132	0.3	340	340
HU05	Livestock Watering	Livestock Watering	48	0.3	15	15
HU05	Livestock Watering	Livestock Watering	87	0.3	26	26
HU05	Livestock Watering	Livestock Watering	87	0.3	26	26
HU05	Livestock Watering	Livestock Watering	487	0.3	146	146
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Livestock Watering	Livestock Watering	569	0.3	171	171
HU05	Lumped Domestic	Lumped Domestic	214,699	0.2	42,940	42,940
HU05	Miscellaneous	Heat Pumps	27,855	0.1	2,785	2,785
HU05	Miscellaneous	Other - Miscellaneous	48	1	48	48
HU05	Miscellaneous	Other - Miscellaneous	161	1	161	161
HU05	Municipal	Water Supply	648,240	1	648,240	95,849
HU05	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HU05	Unknown	Unknown	76	1	76	76
HU05	Unknown	Unknown	76	1	76	76
HU05	Unknown	Unknown	76	1	76	76
HU06	Agricultural	Field and Pasture Crops	58,871	0.8	47,097	47,097
HU06	Agricultural	Field and Pasture Crops	28	0.8	22	22
HU06	Agricultural	Other - Agricultural	4,145	0.8	3,316	3,316
HU06	Agricultural	Other - Agricultural	76	0.8	61	61
HU06	Agricultural	Other - Agricultural	76	0.8	61	61
HU06	Agricultural	Sod Farm	2,059	0.9	1,853	1,853
HU06	Commercial	Other - Commercial	19,080	1	19,080	19,080
HU06	Livestock Watering	Livestock Watering	254	0.3	76	76
HU06	Livestock Watering	Livestock Watering	414	0.3	124	124
HU06	Livestock Watering	Livestock Watering	48	0.3	14	14
HU06	Livestock Watering	Livestock Watering	277	0.3	83	83
HU06	Livestock Watering	Livestock Watering	684	0.3	205	205
HU06	Livestock Watering	Livestock Watering	1,423	0.3	427	427
HU06	Livestock Watering	Livestock Watering	312	0.3	94	94
HU06	Livestock Watering	Livestock Watering	171	0.3	51	51
HU06	Livestock Watering	Livestock Watering	569	0.3	171	171
HU06	Lumped Domestic	Lumped Domestic	745,893	0.2	149,179	149,179
HU06	Municipal	Water Supply	29,565	1	29,565	-
HU06	Unknown	Unknown	76	1	76	76
HU06	Water Supply	Communal	116,074	0.2	23,215	23,215
HU07	Agricultural	Field/Pasture Crops	8,176	0.8	6,541	6,541
HU07	Agricultural	Field/Pasture Crops	2,994	0.8	2,395	2,395

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
HU07	Agricultural	Field/Pasture Crops	26,492	0.8	21,193	21,193
HU07	Agricultural	Nursery	442	0.9	398	398
HU07	Agricultural	Other - Agricultural	76	0.8	61	61
HU07	Agricultural	Other - Agricultural	76	0.8	61	61
HU07	Agricultural	Other - Agricultural	76	0.8	61	61
HU07	Commercial	Golf Course Irrigation	75,000	0.7	52,500	52,500
HU07	Institutional	Schools	4,470	0.25	1,118	1,118
HU07	Livestock Watering	Livestock Watering	52	0.3	16	16
HU07	Livestock Watering	Livestock Watering	1,332	0.3	400	400
HU07	Livestock Watering	Livestock Watering	144	0.3	43	43
HU07	Livestock Watering	Livestock Watering	139	0.3	42	42
HU07	Livestock Watering	Livestock Watering	1,387	0.3	416	416
HU07	Livestock Watering	Livestock Watering	1,474	0.3	442	442
HU07	Livestock Watering	Livestock Watering	139	0.3	42	42
HU07	Livestock Watering	Livestock Watering	462	0.3	139	139
HU07	Livestock Watering	Livestock Watering	376	0.3	113	113
HU07	Livestock Watering	Livestock Watering	414	0.3	124	124
HU07	Livestock Watering	Livestock Watering	138	0.3	41	41
HU07	Livestock Watering	Livestock Watering	1,382	0.3	414	414
HU07	Livestock Watering	Livestock Watering	55	0.3	17	17
HU07	Livestock Watering	Livestock Watering	306	0.3	92	92
HU07	Livestock Watering	Livestock Watering	387	0.3	116	116
HU07	Livestock Watering	Livestock Watering	172	0.3	51	51
HU07	Livestock Watering	Livestock Watering	913	0.3	274	274
HU07	Livestock Watering	Livestock Watering	1,370	0.3	411	411
HU07	Livestock Watering	Livestock Watering	569	0.3	171	171
HU07	Lumped Domestic	Lumped Domestic	852,413	0.2	170,483	170,483
HU07	Miscellaneous	Heat Pumps	7,955	0.1	795	795
HU07	Municipal	Water Supply	152,935	1	152,935	-
HU07	Municipal	Water Supply	347,480	1	347,480	-
HU07	Recreational	Aesthetics	1,716	0.25	429	429
HU07	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HU07	Unknown	Unknown	76	1	76	76
HU07	Water Supply	Communal	11,774	0.2	2,355	2,355
HU07	Water Supply	Other - Water Supply	55,267	0.2	11,053	11,053
HU08	Agricultural	Sod Farm	5,678	0.9	5,110	5,110
HU08	Commercial	Golf Course Irrigation	108,960	0.7	76,272	76,272
HU08	Livestock Watering	Livestock Watering	66,320	0.3	19,896	19,896
HU08	Livestock Watering	Livestock Watering	329	0.3	99	99
HU08	Livestock Watering	Livestock Watering	22	0.3	7	7
HU08	Livestock Watering	Livestock Watering	1,388	0.3	416	416
HU08	Livestock Watering	Livestock Watering	1,332	0.3	400	400
HU08	Livestock Watering	Livestock Watering	569	0.3	171	171
HU08	Livestock Watering	Livestock Watering	569	0.3	171	171
HU08	Livestock Watering	Livestock Watering	76	0.3	23	23
HU08	Livestock Watering	Livestock Watering	569	0.3	171	171
HU08	Lumped Domestic	Lumped Domestic	85,520	0.2	17,104	17,104

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
HU08	Municipal	Water Supply	197,100	0.2	39,420	97,367
HU08	Municipal	Water Supply	176,295	0.2	35,259	87,090
HU08	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HU08	Unknown	Unknown	76	1	76	76
HU08	Unknown	Unknown	76	1	76	76
HU09	Agricultural	Nursery	190,785	0.9	171,706	171,706
HU09	Agricultural	Nursery	3,895	0.9	3,506	3,506
HU09	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
HU09	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
HU09	Commercial	Golf Course Irrigation	56,781	0.7	39,747	39,747
HU09	Livestock Watering	Livestock Watering	470	0.3	141	141
HU09	Livestock Watering	Livestock Watering	427	0.3	128	128
HU09	Livestock Watering	Livestock Watering	694	0.3	208	208
HU09	Livestock Watering	Livestock Watering	1,210	0.3	363	363
HU09	Livestock Watering	Livestock Watering	381	0.3	114	114
HU09	Livestock Watering	Livestock Watering	111	0.3	33	33
HU09	Livestock Watering	Livestock Watering	1,364	0.3	409	409
HU09	Livestock Watering	Livestock Watering	72	0.3	22	22
HU09	Livestock Watering	Livestock Watering	5,527	0.3	1,658	1,658
HU09	Livestock Watering	Livestock Watering	307	0.3	92	92
HU09	Livestock Watering	Livestock Watering	347	0.3	104	104
HU09	Livestock Watering	Livestock Watering	228	0.3	68	68
HU09	Livestock Watering	Livestock Watering	35,813	0.3	10,744	10,744
HU09	Livestock Watering	Livestock Watering	66	0.3	20	20
HU09	Livestock Watering	Livestock Watering	533	0.3	160	160
HU09	Livestock Watering	Livestock Watering	76	0.3	23	23
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Livestock Watering	Livestock Watering	569	0.3	171	171
HU09	Lumped Domestic	Lumped Domestic	298,204	0.2	59,641	59,641

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
HU09	Recreational	Aesthetics	20,891	0.25	5,223	5,223
HU09	Recreational	Aesthetics	20,891	0.25	5,223	5,223
HU09	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HU09	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HU09	Unknown	Unknown	76	1	76	76
HU09	Unknown	Unknown	76	1	76	76
HU09	Unknown	Unknown	76	1	76	76
HU09	Unknown	Unknown	76	1	76	76
HU09	Unknown	Unknown	76	1	76	76
HU09	Water Supply	Other - Water Supply	59,860	0.2	11,972	11,972
HU10	Agricultural	Nursery	327	0.9	294	294
HU10	Agricultural	Nursery	7,437	0.9	6,693	6,693
HU10	Livestock Watering	Livestock Watering	140	0.3	42	42
HU10	Livestock Watering	Livestock Watering	1,199	0.3	360	360
HU10	Livestock Watering	Livestock Watering	794	0.3	238	238
HU10	Livestock Watering	Livestock Watering	569	0.3	171	171
HU10	Livestock Watering	Livestock Watering	569	0.3	171	171
HU10	Livestock Watering	Livestock Watering	569	0.3	171	171
HU10	Lumped Domestic	Lumped Domestic	207,378	0.2	41,476	41,476
HU10	Municipal	Other - Dewatering	1,660	1	1,660	1,660
HU10	Municipal	Water Supply	73,232	0.2	14,646	22,262
HU10	Municipal	Water Supply	740,154	0.2	-	148,031
HU10	Municipal	Water Supply	391	0.2	78	119
HU11	Agricultural	Nursery	272	0.9	245	245
HU11	Agricultural	Nursery	195	0.9	176	176
HU11	Agricultural	Other - Agricultural	76	0.8	61	61
HU11	Livestock Watering	Livestock Watering	1,825	0.3	548	548
HU11	Lumped Domestic	Lumped Domestic	224,130	0.2	44,826	44,826
HU11	Municipal	Water Supply	32,408	0.2	6,482	14,981
HU11	Municipal	Water Supply	36,538	0.2	7,308	16,891
HU11	Municipal	Water Supply	396,632	0.2	79,326	183,350
HU12	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
HU12	Commercial	Aquaculture	16,593	0.1	1,659	1,659
HU12	Livestock Watering	Livestock Watering	17,897	0.3	5,369	5,369
HU12	Livestock Watering	Livestock Watering	415	0.3	124	124
HU12	Livestock Watering	Livestock Watering	76	0.3	23	23
HU12	Lumped Domestic	Lumped Domestic	255,677	0.2	51,135	51,135
HU12	Municipal	Water Supply	73,232	0.2	14,646	22,262
HU12	Recreational	Aesthetics	2,950	0.25	738	738
HU12	Recreational	Aesthetics	24	0.25	6	6
HU12	Unknown	Unknown	76	1	76	76
HU12	Water Supply	Communal	11,938	0.2	2,388	2,388
DO01	Industrial	Other - Industrial	67,069	0.25	16,767	16,767
DO03	Remediation	Groundwater	105,120	1	105,120	105,120
DO04	Commercial	Golf Course Irrigation	142,453	0.7	99,717	99,717
DO04	Industrial	Other - Industrial	67,069	0.25	16,767	16,767
DO05	Agricultural	Nursery	3,895	0.9	3,506	3,506

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
DO05	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
DO05	Agricultural	Other - Agricultural	76	0.8	61	61
DO05	Commercial	Golf Course Irrigation	246,240	0.7	172,368	172,368
DO05	Lumped Domestic	Lumped Domestic	47,477	0.2	9,495	9,495
DO05	Remediation	Groundwater	795,845	1	795,845	795,845
DO05	Remediation	Other - Remediation	19,896	1	19,896	19,896
DO05	Unknown	Unknown	76	1	76	76
DO05	Unknown	Unknown	76	1	76	76
DO06	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
DO06	Agricultural	Other - Agricultural	3,150	0.8	2,520	2,520
DO06	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
DO06	Agricultural	Unknown	76	0.8	61	76
DO06	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
DO06	Commercial	Golf Course Irrigation	97,083	0.7	67,958	67,958
DO06	Commercial	Golf Course Irrigation	2,000	0.7	1,400	1,400
DO06	Dewatering	Other - Dewatering	1,149,984	1	1,149,984	1,149,984
DO06	Lumped Domestic	Lumped Domestic	1,339	0.2	268	268
DO06	Miscellaneous	Other - Miscellaneous	216,710	1	216,710	216,710
DO06	Recreational	Aesthetics	10,474	0.25	2,619	2,619
DO06	Recreational	Aesthetics	10,474	0.25	2,619	2,619
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Remediation	Groundwater	65,723	1	65,723	65,723
DO06	Unknown	Unknown	76	1	76	76
DO07	Agricultural	Other - Agricultural	76	0.8	61	61
DO07	Commercial	Golf Course Irrigation	425	0.7	298	298
DO07	Commercial	Golf Course Irrigation	18,533	0.7	12,973	12,973
DO07	Dewatering	Construction	-	0.25	-	-
DO07	Livestock Watering	Livestock Watering	1,515	0.3	455	455
DO07	Lumped Domestic	Lumped Domestic	142,663	0.2	28,533	28,533
DO07	Recreational	Aesthetics	10,474	0.25	2,619	2,619
HI03	Miscellaneous	Other - Miscellaneous	654	1	654	654
RO01	Lumped Domestic	Lumped Domestic	2,201	0.2	440	440

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
RO02	Agricultural	Market Gardens / Flowers	1,526	0.9	1,374	1,374
RO02	Agricultural	Nursery	44,344	0.9	39,909	39,909
RO02	Agricultural	Nursery	10,368	0.9	9,331	9,331
RO02	Agricultural	Nursery	4,290	0.9	3,861	3,861
RO02	Agricultural	Nursery	12,925	0.9	11,633	11,633
RO02	Agricultural	Nursery	17,520	0.9	15,768	15,768
RO02	Agricultural	Nursery	38,075	0.9	34,268	34,268
RO02	Agricultural	Nursery	3,895	0.9	3,506	3,506
RO02	Agricultural	Other - Agricultural	8	0.8	6	6
RO02	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
RO02	Agricultural	Other - Agricultural	613	0.8	490	490
RO02	Agricultural	Other - Agricultural	76	0.8	61	61
RO02	Agricultural	Tender Fruit	250,291	0.8	200,233	200,233
RO02	Commercial	Aquaculture	397,923	1	397,923	397,923
RO02	Commercial	Aquaculture	1,214,136	1	1,214,136	1,214,136
RO02	Commercial	Golf Course Irrigation	91,985	0.7	64,390	64,390
RO02	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
RO02	Commercial	Golf Course Irrigation	45,000	0.7	31,500	31,500
RO02	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
RO02	Commercial	Other - Commercial	150,322	1	150,322	150,322
RO02	Industrial	Aggregate Washing	298,442	0.25	74,610	74,610
RO02	Industrial	Other - Industrial	2,650	0.25	662	662
RO02	Livestock Watering	Livestock Watering	867	0.3	260	260
RO02	Livestock Watering	Livestock Watering	867	0.3	260	260
RO02	Livestock Watering	Livestock Watering	1,278	0.3	383	383
RO02	Livestock Watering	Livestock Watering	999	0.3	300	300
RO02	Livestock Watering	Livestock Watering	1,532	0.3	460	460
RO02	Livestock Watering	Livestock Watering	1,332	0.3	400	400
RO02	Livestock Watering	Livestock Watering	76	0.3	23	23
RO02	Livestock Watering	Livestock Watering	569	0.3	171	171
RO02	Livestock Watering	Livestock Watering	569	0.3	171	171
RO02	Lumped Domestic	Lumped Domestic	1,322,261	0.2	264,452	264,452
RO02	Miscellaneous	Other - Miscellaneous	161	1	161	161
RO02	Municipal	Water Supply	481,070	1	481,070	524,366
RO02	Municipal	Water Supply	425,590	1	425,590	463,893
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Recreational	Aesthetics	10,474	0.25	2,619	2,619
RO02	Unknown	Unknown	76	1	76	76
RO02	Unknown	Unknown	76	1	76	76

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
RO02	Unknown	Unknown	76	1	76	76
RO02	Unknown	Unknown	76	1	76	76
RO03	Agricultural	Nursery	3,895	0.9	3,506	3,506
RO03	Agricultural	Other - Agricultural	76	0.8	61	61
RO03	Agricultural	Sod Farm	2,059	0.9	1,853	1,853
RO03	Commercial	Golf Course Irrigation	273	0.7	191	191
RO03	Lumped Domestic	Lumped Domestic	146,307	0.2	29,261	29,261
RO03	Miscellaneous	Wildlife Conservation	-	0.1	-	-
RO04	Industrial	Aggregate Washing	162,750	0.25	40,688	40,688
RO04	Industrial	Cooling Water	-	0.25	-	-
RO04	Livestock Watering	Livestock Watering	37	0.3	11	11
RO04	Lumped Domestic	Lumped Domestic	445	0.2	89	89
RO05	Agricultural	Nursery	40,410	0.9	36,369	36,369
RO05	Agricultural	Nursery	398	0.9	358	358
RO05	Agricultural	Nursery	3,456	0.9	3,110	3,110
RO05	Agricultural	Nursery	3,895	0.9	3,506	3,506
RO05	Commercial	Golf Course Irrigation	85,172	0.7	59,620	59,620
RO05	Livestock Watering	Livestock Watering	240	0.3	72	72
RO05	Lumped Domestic	Lumped Domestic	661,905	0.2	132,381	132,381
RO05	Miscellaneous	Other - Miscellaneous	161	1	161	161
RO06	Commercial	Golf Course Irrigation	27,255	0.7	19,078	19,078
RO06	Commercial	Golf Course Irrigation	52,800	0.7	36,960	36,960
RO06	Commercial	Golf Course Irrigation	30,000	0.7	21,000	21,000
RO06	Livestock Watering	Livestock Watering	277	0.3	83	83
RO06	Livestock Watering	Livestock Watering	569	0.3	171	171
RO06	Lumped Domestic	Lumped Domestic	429,792	0.2	85,958	85,958
RO06	Miscellaneous	Wildlife Conservation	-	0.1	-	-
RO07	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
RO07	Commercial	Golf Course Irrigation	58,871	0.7	41,209	41,209
RO07	Commercial	Golf Course Irrigation	55,600	0.7	38,920	38,920
RO07	Commercial	Golf Course Irrigation	113,562	0.7	79,494	79,494
RO07	Commercial	Golf Course Irrigation	98,118	0.7	68,682	68,682
RO07	Livestock Watering	Livestock Watering	73,000	0.3	21,900	21,900
RO07	Livestock Watering	Livestock Watering	347	0.3	104	104
RO07	Livestock Watering	Livestock Watering	996	0.3	299	299
RO07	Livestock Watering	Livestock Watering	399	0.3	120	120
RO07	Livestock Watering	Livestock Watering	433	0.3	130	130
RO07	Livestock Watering	Livestock Watering	483	0.3	145	145
RO07	Lumped Domestic	Lumped Domestic	251,819	0.2	50,364	50,364
PE01	Lumped Domestic	Lumped Domestic	56,965	0.2	11,393	11,393
FR01	Lumped Domestic	Lumped Domestic	11,713	0.2	2,343	2,343
DU01	Agricultural	Sod Farm	2,059	0.9	1,853	1,853
DU01	Livestock Watering	Livestock Watering	566	0.3	170	170
DU01	Lumped Domestic	Lumped Domestic	25,509	0.2	5,102	5,102
DU02	Livestock Watering	Livestock Watering	569	0.3	171	171
DU02	Lumped Domestic	Lumped Domestic	57,584	0.2	11,517	11,517
DU02	Remediation	Other - Remediation	601,812	1	601,812	601,812

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
DU03	Agricultural	Market Gardens/Flowers	4,406	0.9	3,966	3,966
DU03	Agricultural	Market Gardens / Flowers	1,382	0.9	1,244	1,244
DU03	Agricultural	Nursery	64,806	0.9	58,326	58,326
DU03	Agricultural	Nursery	3,895	0.9	3,506	3,506
DU03	Commercial	Cemetery Irrigation	150	0.7	105	105
DU03	Commercial	Cemetery Irrigation	2,333	0.7	1,633	1,633
DU03	Commercial	Cemetery Irrigation	2,128	0.7	1,489	1,489
DU03	Commercial	Golf Course Irrigation	91,500	0.7	64,050	64,050
DU03	Livestock Watering	Livestock Watering	347	0.3	104	104
DU03	Livestock Watering	Livestock Watering	622	0.3	187	187
DU03	Livestock Watering	Livestock Watering	572	0.3	172	172
DU03	Lumped Domestic	Lumped Domestic	116,735	0.2	23,347	23,347
DU04	Agricultural	Nursery	3,454	0.9	3,109	3,109
DU04	Agricultural	Other - Agricultural	5,724	0.8	4,579	4,579
DU04	Agricultural	Sod Farm	2,059	0.9	1,853	1,853
DU04	Commercial	Snowmaking	1,044,067	0.5	522,034	522,034
DU04	Livestock Watering	Livestock Watering	221	0.3	66	66
DU04	Livestock Watering	Livestock Watering	365	0.3	110	110
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Livestock Watering	Livestock Watering	569	0.3	171	171
DU04	Lumped Domestic	Lumped Domestic	244,088	0.2	48,818	48,818
DU05	Agricultural	Nursery	5,527	0.9	4,974	4,974
DU05	Agricultural	Nursery	3,895	0.9	3,506	3,506
DU05	Commercial	Golf Course Irrigation	102,330	0.7	71,631	71,631
DU05	Commercial	Golf Course Irrigation	707,040	0.7	494,928	494,928
DU05	Commercial	Other - Commercial	19,080	1	19,080	19,080
DU05	Industrial	Aggregate Washing	42,979	0.25	10,745	10,745
DU05	Livestock Watering	Livestock Watering	691	0.3	207	207
DU05	Livestock Watering	Livestock Watering	110	0.3	33	33
DU05	Livestock Watering	Livestock Watering	569	0.3	171	171
DU05	Lumped Domestic	Lumped Domestic	100,011	0.2	20,002	20,002
DU05	Recreational	Aesthetics	10,474	0.25	2,619	2,619
DU05	Water Supply	Other - Water Supply	366,608	0.2	73,322	73,322
DU06	Agricultural	Nursery	3,895	0.9	3,506	3,506
DU06	Agricultural	Nursery	3,895	0.9	3,506	3,506
DU06	Agricultural	Nursery	3,895	0.9	3,506	3,506
DU06	Agricultural	Sod Farm	2,059	0.9	1,853	1,853
DU06	Commercial	Golf Course Irrigation	48,989	0.7	34,292	34,292
DU06	Industrial	Aggregate Washing	433,109	0.25	108,277	108,277
DU06	Livestock Watering	Livestock Watering	3,833	0.3	1,150	1,150
DU06	Lumped Domestic	Lumped Domestic	100,544	0.2	20,109	20,109
DU06	Municipal	Water Supply	315,360	1	315,360	409,968

Sub-watershed	Category	Specific Use	Estimated Usage (m^3/yr)	Consum. Factor	Current Consumptive Use (m^3/yr)	2031 Consumptive Use (m^3/yr)
DU06	Municipal	Water Supply	373,395	1	373,395	485,414
DU06	Municipal	Water Supply	553,340	1	553,340	719,342
DU06	Municipal	Water Supply	12,097	0.2	2,419	7,258
DU06	Municipal	Water Supply	964	0.2	193	579
CA01	Agricultural	Market Gardens / Flowers	8,789	0.9	7,910	7,910
CA01	Agricultural	Nursery	3,895	0.9	3,506	3,506
CA01	Agricultural	Other - Agricultural	99,481	0.8	79,584	79,584
CA01	Commercial	Golf Course Irrigation	22,456	0.7	15,719	15,719
CA01	Livestock Watering	Livestock Watering	569	0.3	171	171
CA01	Livestock Watering	Livestock Watering	569	0.3	171	171
CA01	Livestock Watering	Livestock Watering	569	0.3	171	171
CA01	Lumped Domestic	Lumped Domestic	58,545	0.2	11,709	11,709
LO01	Dewatering	Other - Dewatering	1,450,656	1	1,450,656	1,450,656
LO02	Dewatering	Other - Dewatering	471,744	1	471,744	471,744
LO02	Remediation	Other - Remediation	212,342	1	212,342	212,342
LO03	Commercial	Golf Course Irrigation	200,310	0.7	140,217	140,217
LO03	Remediation	Groundwater	604,440	1	604,440	604,440

Table C2-14: Current Water Use Estimates by Subwatershed

Subshed	Jan m^3/s	Feb m^3/s	Mar m^3/s	Apr m^3/s	May m^3/s	Jun m^3/s	Jul m^3/s	Aug m^3/s	Sep m^3/s	Oct m^3/s	Nov m^3/s	Dec m^3/s	Annual m^3/s
ET01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ET02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ET03	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
ET04	0.0024	0.0027	0.0024	0.0025	0.0024	0.0028	0.0043	0.0043	0.0028	0.0024	0.0025	0.0024	0.0028
MI01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MI02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HU01	0.0284	0.0314	0.0284	0.0293	0.0284	0.0294	0.0285	0.0285	0.0294	0.0284	0.0293	0.0284	0.0290
HU02	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
HU03	0.0008	0.0009	0.0008	0.0008	0.0008	0.0056	0.0055	0.0055	0.0056	0.0008	0.0008	0.0008	0.0024
HU04	0.0010	0.0011	0.0010	0.0010	0.0010	0.0031	0.0050	0.0050	0.0031	0.0010	0.0010	0.0010	0.0020
HU05	0.0224	0.0248	0.0224	0.0231	0.0224	0.0256	0.0523	0.0523	0.0256	0.0224	0.0231	0.0224	0.0283
HU06	0.0069	0.0077	0.0069	0.0071	0.0069	0.0073	0.0165	0.0165	0.0073	0.0069	0.0071	0.0069	0.0087
HU07	0.0216	0.0239	0.0216	0.0223	0.0216	0.0273	0.0322	0.0322	0.0273	0.0216	0.0223	0.0216	0.0246
HU08	0.0036	0.0040	0.0036	0.0037	0.0036	0.0116	0.0112	0.0112	0.0116	0.0036	0.0037	0.0036	0.0063
HU09	0.0033	0.0036	0.0033	0.0034	0.0033	0.0072	0.0414	0.0414	0.0072	0.0033	0.0034	0.0033	0.0104
HU10	0.0018	0.0020	0.0018	0.0018	0.0018	0.0018	0.0031	0.0031	0.0018	0.0018	0.0018	0.0018	0.0021
HU11	0.0043	0.0048	0.0043	0.0045	0.0043	0.0045	0.0044	0.0044	0.0045	0.0043	0.0045	0.0043	0.0044
HU12	0.0024	0.0026	0.0024	0.0024	0.0024	0.0024	0.0032	0.0032	0.0024	0.0024	0.0024	0.0024	0.0026
DO01	0.0005	0.0006	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
DO02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DO03	0.0033	0.0036	0.0033	0.0034	0.0033	0.0034	0.0033	0.0033	0.0034	0.0033	0.0034	0.0033	0.0033
DO04	0.0005	0.0006	0.0005	0.0005	0.0005	0.0102	0.0098	0.0098	0.0102	0.0005	0.0005	0.0005	0.0037
DO05	0.0257	0.0284	0.0257	0.0265	0.0257	0.0432	0.0433	0.0433	0.0432	0.0257	0.0265	0.0257	0.0319
DO06	0.0754	0.0835	0.0754	0.0779	0.0754	0.0866	0.0860	0.0860	0.0866	0.0754	0.0779	0.0754	0.0801
DO07	0.0010	0.0011	0.0010	0.0010	0.0010	0.0023	0.0022	0.0022	0.0023	0.0010	0.0010	0.0010	0.0014
HI01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RO01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RO02	0.0921	0.1020	0.0921	0.0952	0.0961	0.1126	0.1696	0.1696	0.1126	0.0961	0.0993	0.0921	0.1110
RO03	0.0009	0.0010	0.0009	0.0009	0.0009	0.0011	0.0018	0.0018	0.0011	0.0009	0.0009	0.0009	0.0011
RO04	0.0000	0.0000	0.0000	0.0000	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0000	0.0013
RO05	0.0041	0.0046	0.0041	0.0043	0.0041	0.0100	0.0178	0.0178	0.0100	0.0041	0.0043	0.0041	0.0075
RO06	0.0027	0.0030	0.0027	0.0028	0.0027	0.0102	0.0099	0.0099	0.0102	0.0027	0.0028	0.0027	0.0052
RO07	0.0023	0.0025	0.0023	0.0023	0.0023	0.0244	0.0244	0.0244	0.0244	0.0023	0.0023	0.0023	0.0097
PE01	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
FR01	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
DU01	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002
DU02	0.0191	0.0211	0.0191	0.0197	0.0191	0.0197	0.0191	0.0191	0.0197	0.0191	0.0197	0.0191	0.0195
DU03	0.0007	0.0008	0.0007	0.0008	0.0007	0.0073	0.0195	0.0195	0.0073	0.0007	0.0008	0.0007	0.0050
DU04	0.0665	0.0737	0.0016	0.0016	0.0016	0.0018	0.0032	0.0032	0.0018	0.0016	0.0016	0.0665	0.0184
DU05	0.0036	0.0040	0.0036	0.0037	0.0042	0.0589	0.0586	0.0586	0.0589	0.0042	0.0043	0.0036	0.0222
DU06	0.0394	0.0436	0.0394	0.0407	0.0452	0.0502	0.0505	0.0505	0.0502	0.0452	0.0467	0.0394	0.0451
CA01	0.0004	0.0004	0.0004	0.0004	0.0004	0.0019	0.0188	0.0188	0.0019	0.0004	0.0004	0.0004	0.0038
LO01	0.0451	0.0500	0.0451	0.0466	0.0451	0.0466	0.0451	0.0451	0.0466	0.0451	0.0466	0.0451	0.0460
LO02	0.0213	0.0236	0.0213	0.0220	0.0213	0.0220	0.0213	0.0213	0.0220	0.0213	0.0220	0.0213	0.0217
LO03	0.0188	0.0208	0.0188	0.0194	0.0188	0.0330	0.0319	0.0319	0.0330	0.0188	0.0194	0.0188	0.0236
LO04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LO05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LO06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table C2-15: Future Water Use Estimates by Subwatershed

Subwater-shed	Jan m^3/s	Feb m^3/s	Mar m^3/s	Apr m^3/s	May m^3/s	Jun m^3/s	Jul m^3/s	Aug m^3/s	Sep m^3/s	Oct m^3/s	Nov m^3/s	Dec m^3/s	Annual m^3/s
ET01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ET02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ET03	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
ET04	0.0024	0.0027	0.0024	0.0025	0.0024	0.0028	0.0043	0.0043	0.0028	0.0024	0.0025	0.0024	0.0028
MI01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MI02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HU01	0.0284	0.0314	0.0284	0.0293	0.0284	0.0294	0.0285	0.0285	0.0294	0.0284	0.0293	0.0284	0.0290
HU02	0.0014	0.0015	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
HU03	0.0008	0.0009	0.0008	0.0008	0.0008	0.0056	0.0055	0.0055	0.0056	0.0008	0.0008	0.0008	0.0024
HU04	0.0010	0.0011	0.0010	0.0010	0.0010	0.0031	0.0050	0.0050	0.0031	0.0010	0.0010	0.0010	0.0020
HU05	0.0052	0.0058	0.0052	0.0054	0.0052	0.0078	0.0351	0.0351	0.0078	0.0052	0.0054	0.0052	0.0108
HU06	0.0060	0.0066	0.0060	0.0062	0.0060	0.0064	0.0156	0.0156	0.0064	0.0060	0.0062	0.0060	0.0078
HU07	0.0060	0.0066	0.0060	0.0062	0.0060	0.0113	0.0166	0.0166	0.0113	0.0060	0.0062	0.0060	0.0087
HU08	0.0070	0.0078	0.0070	0.0073	0.0070	0.0151	0.0146	0.0146	0.0151	0.0070	0.0073	0.0070	0.0097
HU09	0.0033	0.0036	0.0033	0.0034	0.0033	0.0072	0.0414	0.0414	0.0072	0.0033	0.0034	0.0033	0.0104
HU10	0.0066	0.0073	0.0066	0.0068	0.0066	0.0068	0.0079	0.0079	0.0068	0.0066	0.0068	0.0066	0.0070
HU11	0.0081	0.0090	0.0081	0.0084	0.0081	0.0084	0.0082	0.0082	0.0084	0.0081	0.0084	0.0081	0.0083
HU12	0.0026	0.0029	0.0026	0.0027	0.0026	0.0027	0.0035	0.0035	0.0027	0.0026	0.0027	0.0026	0.0028
DO01	0.0005	0.0006	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
DO02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DO03	0.0033	0.0036	0.0033	0.0034	0.0033	0.0034	0.0033	0.0033	0.0034	0.0033	0.0034	0.0033	0.0033
DO04	0.0005	0.0006	0.0005	0.0005	0.0005	0.0102	0.0098	0.0098	0.0102	0.0005	0.0005	0.0005	0.0037
DO05	0.0257	0.0284	0.0257	0.0265	0.0257	0.0432	0.0433	0.0433	0.0432	0.0257	0.0265	0.0257	0.0319
DO06	0.0754	0.0835	0.0754	0.0779	0.0754	0.0866	0.0860	0.0860	0.0866	0.0754	0.0779	0.0754	0.0801
DO07	0.0010	0.0011	0.0010	0.0010	0.0010	0.0023	0.0022	0.0022	0.0023	0.0010	0.0010	0.0010	0.0014
HI01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HI04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RO01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RO02	0.0947	0.1048	0.0947	0.0978	0.0986	0.1152	0.1722	0.1722	0.1152	0.0986	0.1019	0.0947	0.1140
RO03	0.0009	0.0010	0.0009	0.0009	0.0009	0.0011	0.0018	0.0018	0.0011	0.0009	0.0009	0.0009	0.0011
RO04	0.0000	0.0000	0.0000	0.0000	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0000	0.0013
RO05	0.0041	0.0046	0.0041	0.0043	0.0041	0.0100	0.0178	0.0178	0.0100	0.0041	0.0043	0.0041	0.0075
RO06	0.0027	0.0030	0.0027	0.0028	0.0027	0.0102	0.0099	0.0099	0.0102	0.0027	0.0028	0.0027	0.0052
RO07	0.0023	0.0025	0.0023	0.0023	0.0023	0.0244	0.0244	0.0244	0.0244	0.0023	0.0023	0.0023	0.0097
PE01	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
FR01	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
DU01	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002
DU02	0.0191	0.0211	0.0191	0.0197	0.0191	0.0197	0.0191	0.0191	0.0197	0.0191	0.0197	0.0191	0.0195
DU03	0.0007	0.0008	0.0007	0.0008	0.0007	0.0073	0.0195	0.0195	0.0073	0.0007	0.0008	0.0007	0.0050
DU04	0.0665	0.0737	0.0016	0.0016	0.0016	0.0018	0.0032	0.0032	0.0018	0.0016	0.0016	0.0665	0.0184
DU05	0.0036	0.0040	0.0036	0.0037	0.0042	0.0589	0.0586	0.0586	0.0589	0.0042	0.0043	0.0036	0.0222
DU06	0.0511	0.0566	0.0511	0.0528	0.0569	0.0623	0.0623	0.0623	0.0623	0.0569	0.0588	0.0511	0.0570
CA01	0.0004	0.0004	0.0004	0.0004	0.0004	0.0019	0.0188	0.0188	0.0019	0.0004	0.0004	0.0004	0.0038
LO01	0.0451	0.0500	0.0451	0.0466	0.0451	0.0466	0.0451	0.0451	0.0466	0.0451	0.0466	0.0451	0.0460
LO02	0.0213	0.0236	0.0213	0.0220	0.0213	0.0220	0.0213	0.0213	0.0220	0.0213	0.0220	0.0213	0.0217
LO03	0.0188	0.0208	0.0188	0.0194	0.0188	0.0330	0.0319	0.0319	0.0330	0.0188	0.0194	0.0188	0.0236
LO04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LO05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LO06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table C2-16: Groundwater Stress Assessment (Current Conditions, January)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.022	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	2%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.092	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.067	10%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.039	11%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-17: Groundwater Stress Assessment (Current Conditions, February)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.031	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.002	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.025	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.008	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.024	3%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.004	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.005	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.004	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.028	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.083	15%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.102	13%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.005	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.003	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.021	5%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.074	11%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.044	13%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.050	68%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.024	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.021	15%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-18: Groundwater Stress Assessment (Current Conditions, March)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.022	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	2%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.092	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.039	11%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-19: Groundwater Stress Assessment (Current Conditions, April)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.023	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	3%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.027	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.078	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
Highland	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.095	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.041	12%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	14%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-20: Groundwater Stress Assessment (Current Conditions, May)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.022	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	2%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.096	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.045	13%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-21: Groundwater Stress Assessment (Current Conditions, June)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.003	1%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.026	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.027	3%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.012	3%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.007	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.087	16%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.113	14%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.010	2%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.007	2%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.050	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.002	1%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.033	23%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-22: Groundwater Stress Assessment (Current Conditions, July)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.004	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.005	1%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.052	11%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.017	2%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.032	4%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.011	3%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.041	8%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.003	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.086	16%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.170	21%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.002	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.018	4%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.020	4%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.003	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.051	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.019	8%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	**61%**	**Significant**
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.032	22%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-23: Groundwater Stress Assessment (Current Conditions, August)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.004	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.005	1%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.052	11%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.017	2%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.032	4%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.011	3%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.041	8%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.003	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.086	16%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.170	21%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.002	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.018	4%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.020	4%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.003	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.051	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.019	8%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.032	22%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-24: Groundwater Stress Assessment (Current Conditions, September)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	Q_{inflow} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.151	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.108	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.254	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.429	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.136	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.060	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.087	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.533	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.331	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.438	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.398	0.024	0.398	0.003	1%	Low
	HU05	92,392,586	0.250	0.280	0.529	0.037	0.529	0.026	5%	Low
	HU06	71,585,430	0.249	0.513	0.761	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.891	0.018	0.891	0.027	3%	Low
	HU08	30,940,908	0.203	0.212	0.415	0.009	0.415	0.012	3%	Low
	HU09	64,762,224	0.405	0.141	0.546	0.025	0.546	0.007	1%	Low
	HU10	47,760,614	0.260	0.349	0.610	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.527	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	1.149	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.258	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.250	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.569	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.544	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.479	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.583	0.031	0.583	0.087	16%	Low
	DO07	41,736,638	0.164	0.232	0.395	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.076	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.153	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.254	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.267	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.051	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.840	0.040	0.840	0.113	14%	Low
	RO03	63,942,168	0.222	0.319	0.541	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.381	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.431	0.023	0.431	0.010	2%	Low
	RO06	30,637,450	0.117	0.283	0.400	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.543	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.180	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.126	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.123	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.474	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.467	0.031	0.467	0.007	2%	Low
	DU04	62,548,890	0.362	0.355	0.717	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.638	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.353	0.010	0.353	0.050	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.240	0.016	0.240	0.002	1%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.073	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.189	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.143	0.000	0.143	0.033	23%	Low
	LO04	16,047,825	0.052	0.075	0.127	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.027	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.021	0.000	0.021	0.000	0%	Low

Table C2-25: Groundwater Stress Assessment (Current Conditions, October)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	Q_{inflow} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.151	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.108	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.254	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.429	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.136	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.060	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.087	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.533	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.331	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.438	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.398	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.529	0.037	0.529	0.022	5%	Low
	HU06	71,585,430	0.249	0.513	0.761	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.891	0.018	0.891	0.022	2%	Low
	HU08	30,940,908	0.203	0.212	0.415	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.546	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.610	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.527	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	1.149	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.258	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.250	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.569	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.544	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.479	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.583	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.395	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.076	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.153	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.254	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.267	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.051	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.840	0.040	0.840	0.096	12%	Low
	RO03	63,942,168	0.222	0.319	0.541	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.381	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.431	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.400	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.543	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.180	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.126	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.123	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.474	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.467	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.717	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.638	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.353	0.010	0.353	0.045	13%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.240	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.073	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.189	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.143	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.127	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.027	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.021	0.000	0.021	0.000	0%	Low

Table C2-26: Groundwater Stress Assessment (Current Conditions, November)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.023	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	3%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.027	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.078	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.099	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.047	14%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	14%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-27: Groundwater Stress Assessment (Current Conditions, December)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.022	5%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.022	2%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.004	1%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.002	0%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.004	1%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.002	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.092	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.067	10%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.039	11%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-28: Groundwater Stress Assessment (Future Conditions, January)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.095	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.067	10%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.051	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-29: Groundwater Stress Assessment (Future Conditions, February)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.031	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.002	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.006	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.007	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.007	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.008	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.004	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.009	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.004	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.028	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.083	15%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.105	13%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.005	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.003	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.021	5%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.074	11%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.057	17%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.050	68%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.024	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.021	15%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-30: Groundwater Stress Assessment (Future Conditions, March)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.095	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.051	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-31: Groundwater Stress Assessment (Future Conditions, April)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.027	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.078	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.098	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.053	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	14%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-32: Groundwater Stress Assessment (Future Conditions, May)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.099	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.057	17%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-33: Groundwater Stress Assessment (Future Conditions, June)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.003	1%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.008	2%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.011	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.015	4%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.007	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.087	16%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.115	14%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.010	2%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.007	2%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.062	18%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.002	1%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.033	23%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-34: Groundwater Stress Assessment (Future Conditions, July)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{out} (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.012	0.151	0.000	0%
	ET02	25,131,283	0.067	0.041	0.007	0.007	0.108	0.000	0%
	ET03	50,208,414	0.181	0.073	0.018	0.018	0.254	0.001	0%
	ET04	102,829,189	0.338	0.091	0.028	0.028	0.429	0.004	1%
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.011	0.136	0.000	0%
	MI02	13,654,309	0.038	0.022	0.003	0.003	0.060	0.000	0%
	MI03	23,283,286	0.060	0.026	0.005	0.005	0.087	0.000	0%
Humber	HU01	88,712,024	0.261	0.272	0.037	0.037	0.533	0.028	6%
	HU02	60,693,407	0.198	0.133	0.017	0.017	0.331	0.001	0%
	HU03	97,672,514	0.294	0.144	0.028	0.028	0.438	0.006	1%
	HU04	106,770,045	0.281	0.117	0.024	0.024	0.398	0.005	1%
	HU05	92,392,586	0.250	0.280	0.037	0.037	0.529	0.035	7%
	HU06	71,585,430	0.249	0.513	0.046	0.046	0.761	0.016	2%
	HU07	93,818,968	0.637	0.254	0.018	0.018	0.891	0.017	2%
	HU08	30,940,908	0.203	0.212	0.009	0.009	0.415	0.015	4%
	HU09	64,762,224	0.405	0.141	0.025	0.025	0.546	0.041	8%
	HU10	47,760,614	0.260	0.349	0.042	0.042	0.610	0.008	1%
	HU11	47,108,648	0.351	0.176	0.024	0.024	0.527	0.008	2%
	HU12	108,051,916	0.942	0.207	0.107	0.107	1.149	0.003	0%
Don	DO01	38,272,626	0.137	0.121	0.017	0.017	0.258	0.001	0%
	DO02	33,770,602	0.112	0.139	0.002	0.002	0.250	0.000	0%
	DO03	53,719,251	0.182	0.387	0.028	0.028	0.569	0.003	1%
	DO04	63,874,250	0.249	0.295	0.039	0.039	0.544	0.010	2%
	DO05	58,084,448	0.209	0.270	0.013	0.013	0.479	0.043	9%
	DO06	63,354,811	0.328	0.255	0.031	0.031	0.583	0.086	16%
	DO07	41,736,638	0.164	0.232	0.012	0.012	0.395	0.002	1%
Highland	HI01	8,943,868	0.028	0.049	0.000	0.000	0.076	0.000	0%
	HI02	10,753,908	0.032	0.121	0.010	0.010	0.153	0.000	0%
	HI03	49,512,432	0.182	0.072	0.008	0.008	0.254	0.000	0%
	HI04	35,886,310	0.127	0.140	0.010	0.010	0.267	0.000	0%
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.003	0.051	0.000	0%
	RO02	114,380,078	0.443	0.397	0.040	0.040	0.840	0.172	22%
	RO03	63,942,168	0.222	0.319	0.030	0.030	0.541	0.002	0%
	RO04	44,531,561	0.145	0.236	0.016	0.016	0.381	0.002	1%
	RO05	39,891,225	0.205	0.226	0.023	0.023	0.431	0.018	4%
	RO06	30,637,450	0.117	0.283	0.012	0.012	0.400	0.010	3%
	RO07	40,631,187	0.205	0.338	0.019	0.019	0.543	0.024	5%
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.006	0.180	0.000	0%
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.004	0.126	0.000	0%
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.005	0.123	0.000	0%
	DU02	53,061,108	0.190	0.284	0.026	0.026	0.474	0.019	4%
	DU03	43,998,921	0.150	0.317	0.031	0.031	0.467	0.020	4%
	DU04	62,548,890	0.362	0.355	0.044	0.044	0.717	0.003	0%
	DU05	60,125,868	0.370	0.268	0.022	0.022	0.638	0.059	10%
	DU06	39,513,589	0.192	0.160	0.010	0.010	0.353	0.062	18%
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.016	0.240	0.019	8%
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.000	0.073	0.045	61%
	LO02	39,823,376	0.159	0.030	0.000	0.000	0.189	0.021	11%
	LO03	23,973,922	0.062	0.082	0.000	0.000	0.143	0.032	22%
	LO04	16,047,825	0.052	0.075	0.000	0.000	0.127	0.000	0%
	LO05	4,816,221	0.017	0.011	0.000	0.000	0.027	0.000	0%
	LO06	3,317,605	0.012	0.009	0.000	0.000	0.021	0.000	0%

Table C2-35: Groundwater Stress Assessment (Future Conditions, August)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.004	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.005	1%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.035	7%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.016	2%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.017	2%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.015	4%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.041	8%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.008	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.086	16%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.172	22%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.002	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.018	4%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.020	4%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.003	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.062	18%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.019	8%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.032	22%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-36: Groundwater Stress Assessment (Future Conditions, September)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	Q_{inflow} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.151	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.108	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.254	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.429	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.136	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.060	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.087	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.533	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.331	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.438	0.028	0.438	0.006	1%	Low
	HU04	106,770,045	0.281	0.117	0.398	0.024	0.398	0.003	1%	Low
	HU05	92,392,586	0.250	0.280	0.529	0.037	0.529	0.008	2%	Low
	HU06	71,585,430	0.249	0.513	0.761	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.891	0.018	0.891	0.011	1%	Low
	HU08	30,940,908	0.203	0.212	0.415	0.009	0.415	0.015	4%	Low
	HU09	64,762,224	0.405	0.141	0.546	0.025	0.546	0.007	1%	Low
	HU10	47,760,614	0.260	0.349	0.610	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.527	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	1.149	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.258	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.250	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.569	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.544	0.039	0.544	0.010	2%	Low
	DO05	58,084,448	0.209	0.270	0.479	0.013	0.479	0.043	9%	Low
	DO06	63,354,811	0.328	0.255	0.583	0.031	0.583	0.087	16%	Low
	DO07	41,736,638	0.164	0.232	0.395	0.012	0.395	0.002	1%	Low
Highland	HI01	8,943,868	0.028	0.049	0.076	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.153	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.254	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.267	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.051	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.840	0.040	0.840	0.115	14%	Low
	RO03	63,942,168	0.222	0.319	0.541	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.381	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.431	0.023	0.431	0.010	2%	Low
	RO06	30,637,450	0.117	0.283	0.400	0.012	0.400	0.010	3%	Low
	RO07	40,631,187	0.205	0.338	0.543	0.019	0.543	0.024	5%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.180	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.126	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.123	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.474	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.467	0.031	0.467	0.007	2%	Low
	DU04	62,548,890	0.362	0.355	0.717	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.638	0.022	0.638	0.059	10%	Low
	DU06	39,513,589	0.192	0.160	0.353	0.010	0.353	0.062	18%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.240	0.016	0.240	0.002	1%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.073	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.189	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.143	0.000	0.143	0.033	23%	Low
	LO04	16,047,825	0.052	0.075	0.127	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.027	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.021	0.000	0.021	0.000	0%	Low

Table C2-37: Groundwater Stress Assessment (Future Conditions, October)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	Q_{inflow} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.151	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.108	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.254	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.429	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.136	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.060	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.087	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.533	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.331	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.438	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.398	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.529	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.761	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.891	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.415	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.546	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.610	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.527	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	1.149	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.258	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.250	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.569	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.544	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.479	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.583	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.395	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.076	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.153	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.254	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.267	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.051	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.840	0.040	0.840	0.099	12%	Low
	RO03	63,942,168	0.222	0.319	0.541	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.381	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.431	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.400	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.543	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.180	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.126	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.123	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.474	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.467	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.717	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.638	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.353	0.010	0.353	0.057	17%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.240	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.073	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.189	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.143	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.127	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.027	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.021	0.000	0.021	0.000	0%	Low

Table C2-38: Groundwater Stress Assessment (Future Conditions, November)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.003	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.029	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.027	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.078	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.102	13%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.002	1%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.020	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.002	0%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.059	17%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.047	64%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.022	12%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	14%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

Table C2-39: Groundwater Stress Assessment (Future Conditions, December)

Watershed	Sub-watershed	Area (m^2)	Q_R (m^3/s)	Q_{IN} (m^3/s)	$Q_{Reserve}$ (m^3/s)	Q_{Supply} (m^3/s)	Q_{Demand} (m^3/s)	% Groundwater Demand	Groundwater Stress Assessment
Etobicoke	ET01	34,156,179	0.078	0.072	0.012	0.151	0.000	0%	Low
	ET02	25,131,283	0.067	0.041	0.007	0.108	0.000	0%	Low
	ET03	50,208,414	0.181	0.073	0.018	0.254	0.001	0%	Low
	ET04	102,829,189	0.338	0.091	0.028	0.429	0.002	1%	Low
Mimico	MI01	41,550,870	0.104	0.031	0.011	0.136	0.000	0%	Low
	MI02	13,654,309	0.038	0.022	0.003	0.060	0.000	0%	Low
	MI03	23,283,286	0.060	0.026	0.005	0.087	0.000	0%	Low
Humber	HU01	88,712,024	0.261	0.272	0.037	0.533	0.028	6%	Low
	HU02	60,693,407	0.198	0.133	0.017	0.331	0.001	0%	Low
	HU03	97,672,514	0.294	0.144	0.028	0.438	0.001	0%	Low
	HU04	106,770,045	0.281	0.117	0.024	0.398	0.001	0%	Low
	HU05	92,392,586	0.250	0.280	0.037	0.529	0.005	1%	Low
	HU06	71,585,430	0.249	0.513	0.046	0.761	0.006	1%	Low
	HU07	93,818,968	0.637	0.254	0.018	0.891	0.006	1%	Low
	HU08	30,940,908	0.203	0.212	0.009	0.415	0.007	2%	Low
	HU09	64,762,224	0.405	0.141	0.025	0.546	0.003	1%	Low
	HU10	47,760,614	0.260	0.349	0.042	0.610	0.007	1%	Low
	HU11	47,108,648	0.351	0.176	0.024	0.527	0.008	2%	Low
	HU12	108,051,916	0.942	0.207	0.107	1.149	0.003	0%	Low
Don	DO01	38,272,626	0.137	0.121	0.017	0.258	0.001	0%	Low
	DO02	33,770,602	0.112	0.139	0.002	0.250	0.000	0%	Low
	DO03	53,719,251	0.182	0.387	0.028	0.569	0.003	1%	Low
	DO04	63,874,250	0.249	0.295	0.039	0.544	0.001	0%	Low
	DO05	58,084,448	0.209	0.270	0.013	0.479	0.026	6%	Low
	DO06	63,354,811	0.328	0.255	0.031	0.583	0.075	14%	Low
	DO07	41,736,638	0.164	0.232	0.012	0.395	0.001	0%	Low
Highland	HI01	8,943,868	0.028	0.049	0.000	0.076	0.000	0%	Low
	HI02	10,753,908	0.032	0.121	0.010	0.153	0.000	0%	Low
	HI03	49,512,432	0.182	0.072	0.008	0.254	0.000	0%	Low
	HI04	35,886,310	0.127	0.140	0.010	0.267	0.000	0%	Low
Rouge	RO01	3,625,105	0.010	0.041	0.003	0.051	0.000	0%	Low
	RO02	114,380,078	0.443	0.397	0.040	0.840	0.095	12%	Low
	RO03	63,942,168	0.222	0.319	0.030	0.541	0.001	0%	Low
	RO04	44,531,561	0.145	0.236	0.016	0.381	0.000	0%	Low
	RO05	39,891,225	0.205	0.226	0.023	0.431	0.004	1%	Low
	RO06	30,637,450	0.117	0.283	0.012	0.400	0.003	1%	Low
	RO07	40,631,187	0.205	0.338	0.019	0.543	0.002	0%	Low
Petticoat	PE01	24,063,409	0.082	0.097	0.006	0.180	0.000	0%	Low
Frenchman's Bay	FR01	25,024,806	0.090	0.036	0.004	0.126	0.000	0%	Low
Duffins	DU01	24,489,851	0.087	0.037	0.005	0.123	0.000	0%	Low
	DU02	53,061,108	0.190	0.284	0.026	0.474	0.019	4%	Low
	DU03	43,998,921	0.150	0.317	0.031	0.467	0.001	0%	Low
	DU04	62,548,890	0.362	0.355	0.044	0.717	0.067	10%	Low
	DU05	60,125,868	0.370	0.268	0.022	0.638	0.004	1%	Low
	DU06	39,513,589	0.192	0.160	0.010	0.353	0.051	15%	Low
Carruthers	CA01	39,204,411	0.131	0.109	0.016	0.240	0.000	0%	Low
Lake Ontario	LO01	24,045,851	0.064	0.009	0.000	0.073	0.045	61%	Significant
	LO02	39,823,376	0.159	0.030	0.000	0.189	0.021	11%	Low
	LO03	23,973,922	0.062	0.082	0.000	0.143	0.019	13%	Low
	LO04	16,047,825	0.052	0.075	0.000	0.127	0.000	0%	Low
	LO05	4,816,221	0.017	0.011	0.000	0.027	0.000	0%	Low
	LO06	3,317,605	0.012	0.009	0.000	0.021	0.000	0%	Low

C2.9 REFERENCES

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C3 TIER 3 WATER BUDGET AND LOCAL AREA RISK ASSESSMENT

Well System Characterization Graphs

The following discussion and graphs were obtained from the York Tier 3 Water Budget report (Earthfx, 2013) and present the well system characterization information for the municipal wells that fall within the TRSPA Tier 3 stressed watersheds. Specifically, the graphs present:

- The field measurements used to determine the Safe Additional Drawdown.
- Results from the transient numerical simulations showing the maximum drawdown in the well observed during the 10-year drought simulation.
- Well Construction and Pump Information: To the left of the graph is a schematic presentation of the well construction, well screen and pump level within the well.
- In-Aquifer Geometry (Aquifer top and bottom): To the right of the graph are dotted lines indicating the top and bottom of the aquifer.
- In-well Water Levels: Where available, water levels recorded in the well, such as from air-line measurements, are presented to illustrate operational levels and well efficiency.
- Aquifer Water Levels: Water levels recorded in nearby monitoring wells are displayed.
- Individual Well and Total Wellfield Production: The pumping rate for the individual well, as well as the overall wellfield takings, are displayed to aid in the assessment of the water level data. The scale is on the right side of the graph.

Note that while a longer period of record is presented, the focus of the Risk Assessment is on the "Study Period" of 2010 – 2011.

Safe Additional Drawdown

An important aspect of the graph is the presentation of the information used to determine the "Safe Additional Drawdown". The safe additional drawdown, is selected based on the lesser of:

(A) The additional available drawdown in the well, as determined by the difference between the operating level in the well and the top of the well screen. (This is based on the assumption that water levels should not be drawn down into the well screen during operations.)

Or:

(B) The additional available drawdown in the aquifer nearby the well, as determined by the difference between the aquifer water levels (during the study period) and the top of the aquifer. (This is based on the assumption that the aquifer should not be dewatered in the vicinity of the well.)

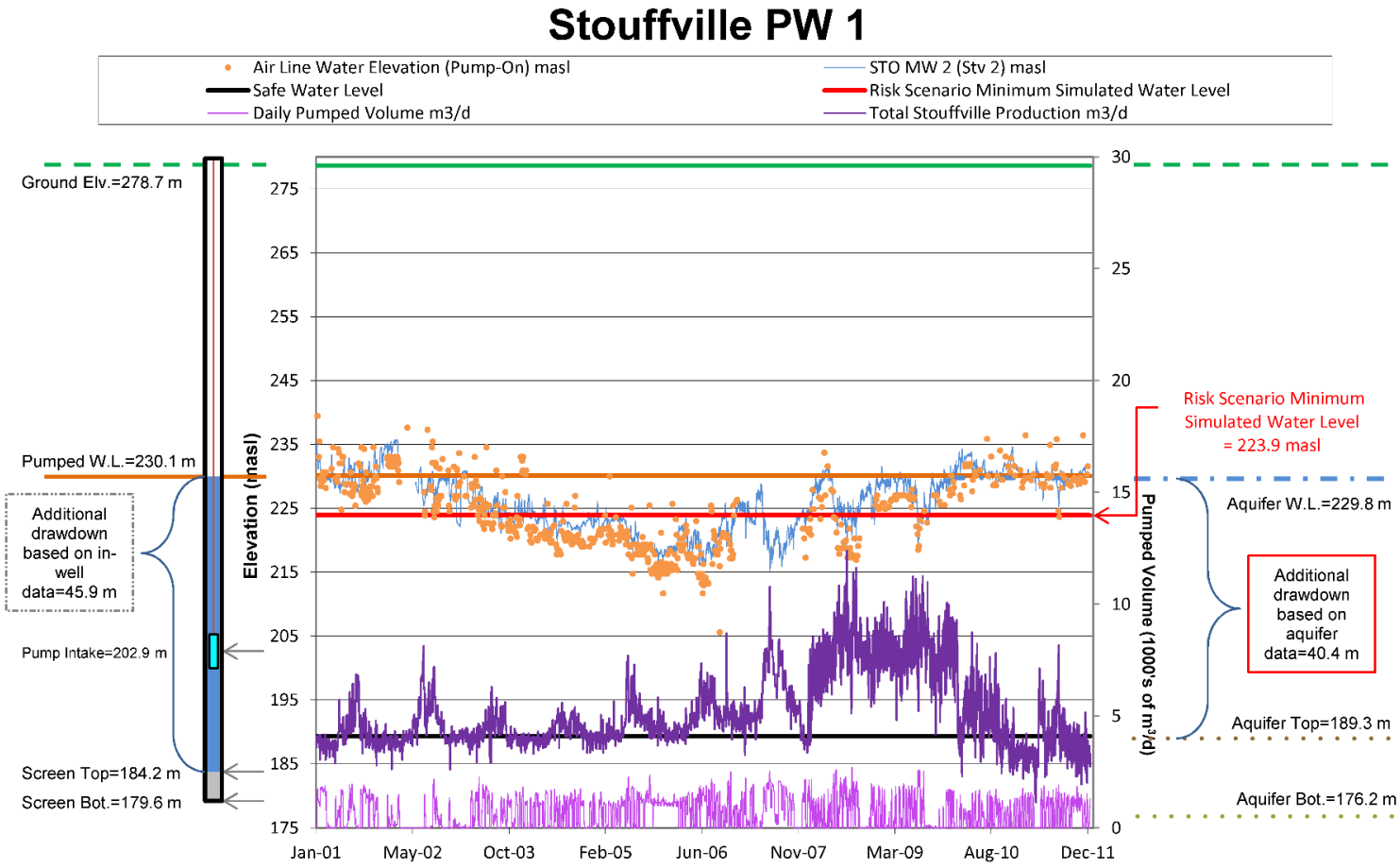
The Safe Additional Drawdown is highlighted on each graph with a red box.

Stress Assessment Maximum Drawdown Level

Safe Water Level (thick black line): This is the lowest water level that is considered acceptable for long term operation of the well.

Risk Scenario Minimum Simulated Water Level (thick red line): This is the lowest predicted water level estimated from the model simulations. Where this level is below the Safe Water Level the well is subject to further risk assessment analysis.

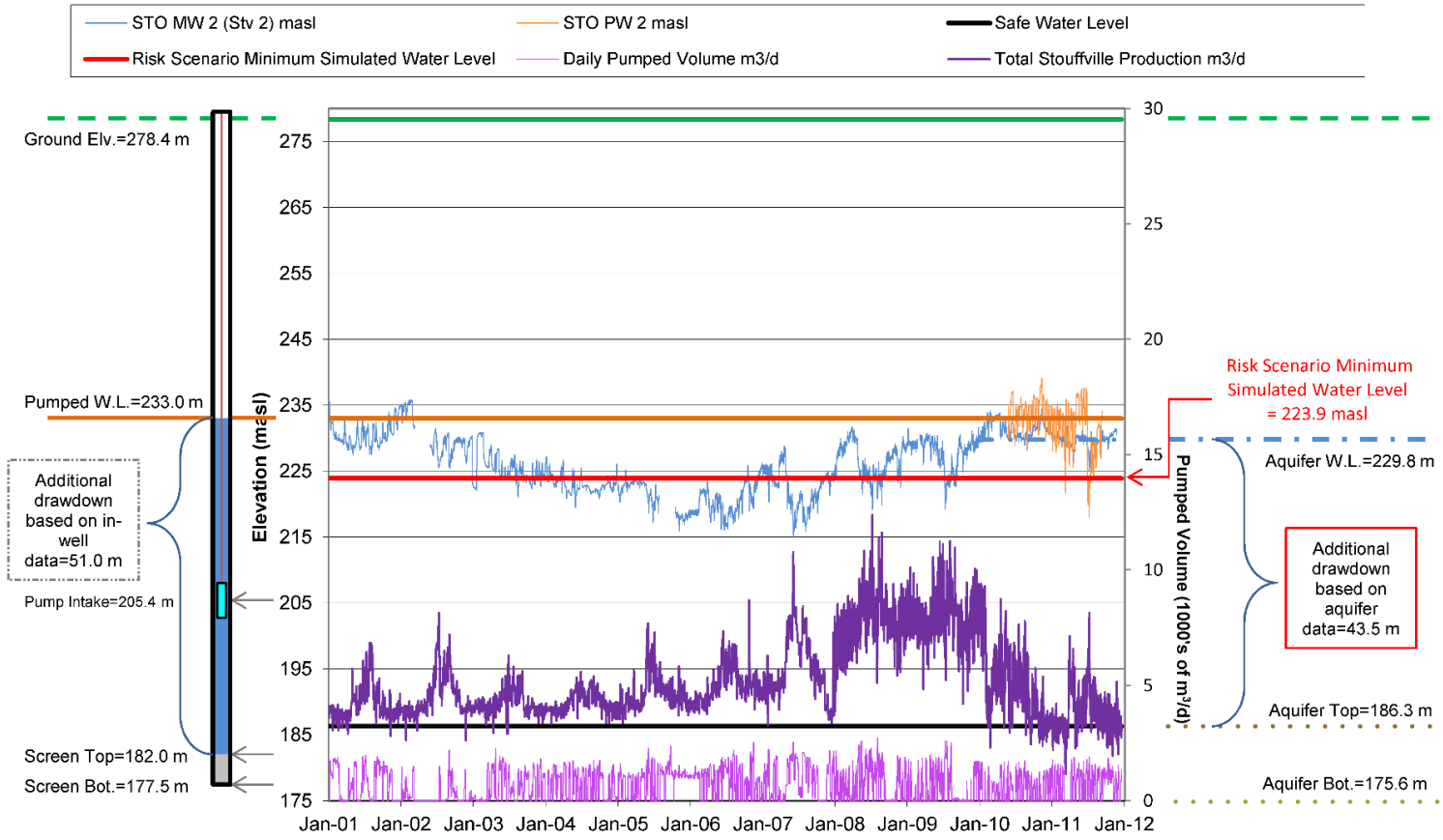
York Region Tier 3 Water Budget - Available Drawdown Hydrographs



Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Stouffville MW#2 at a distance of 4.6 m. The operational/pumped water elevation has been estimated using the on-site monitoring well.

York Region Tier 3 Water Budget - Available Drawdown Hydrographs

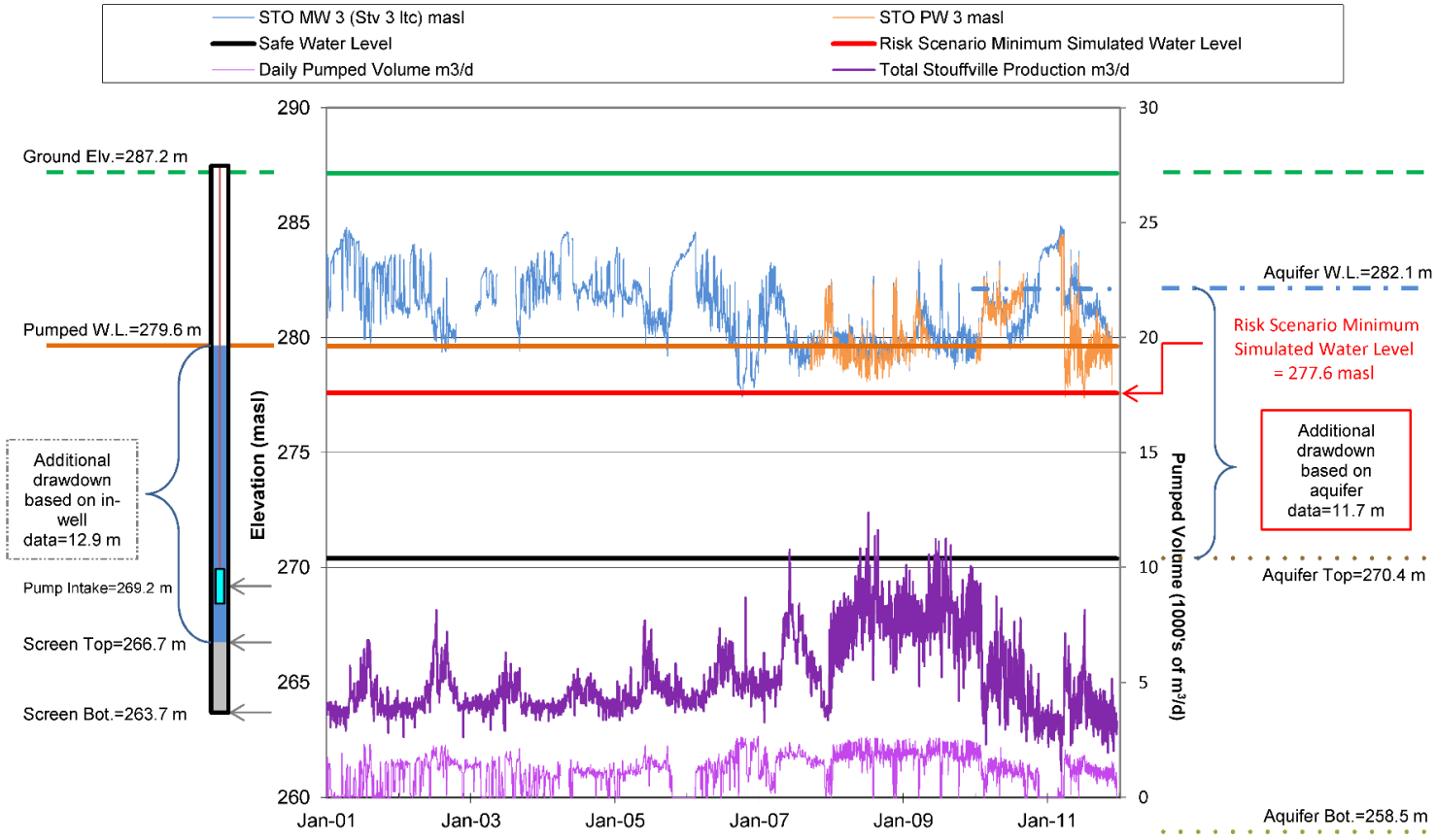
Stouffville PW 2



Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Stouffville MW#2 at a distance of 22.6 m.

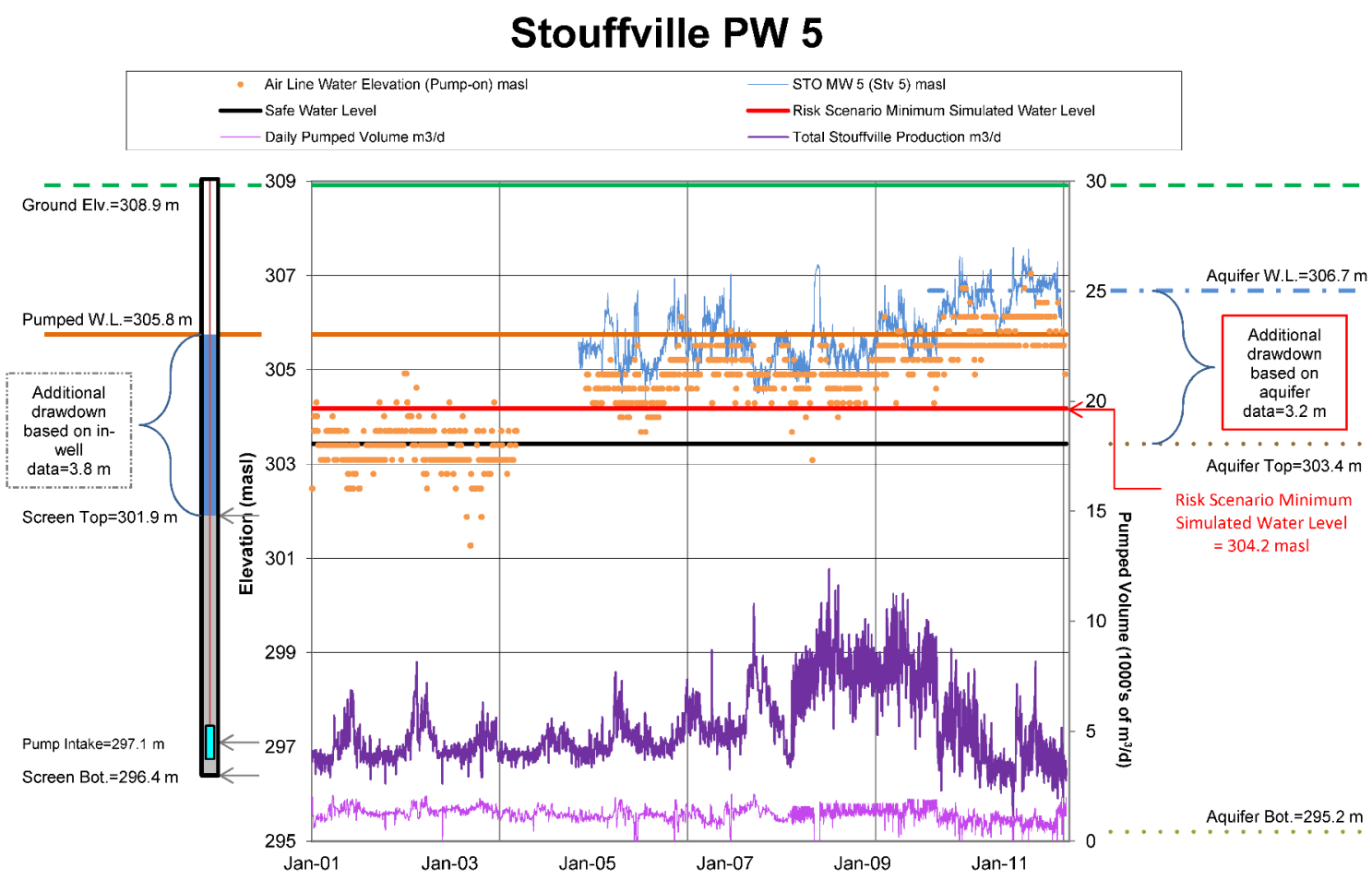
York Region Tier 3 Water Budget - Available Drawdown Hydrographs

Stouffville PW 3



Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Stouffville MW#3 at a distance of 2 m.

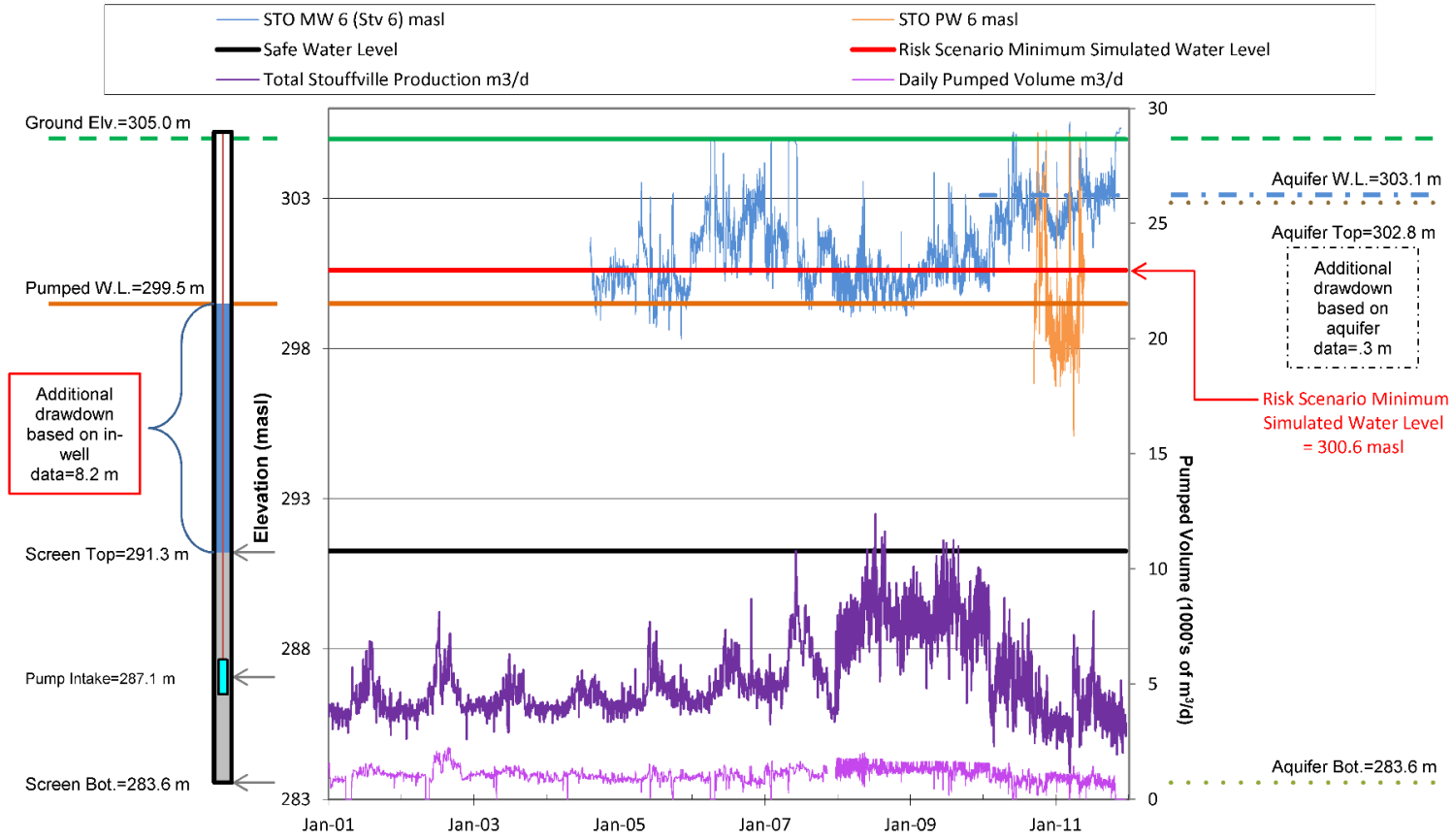
York Region Tier 3 Water Budget - Available Drawdown Hydrographs



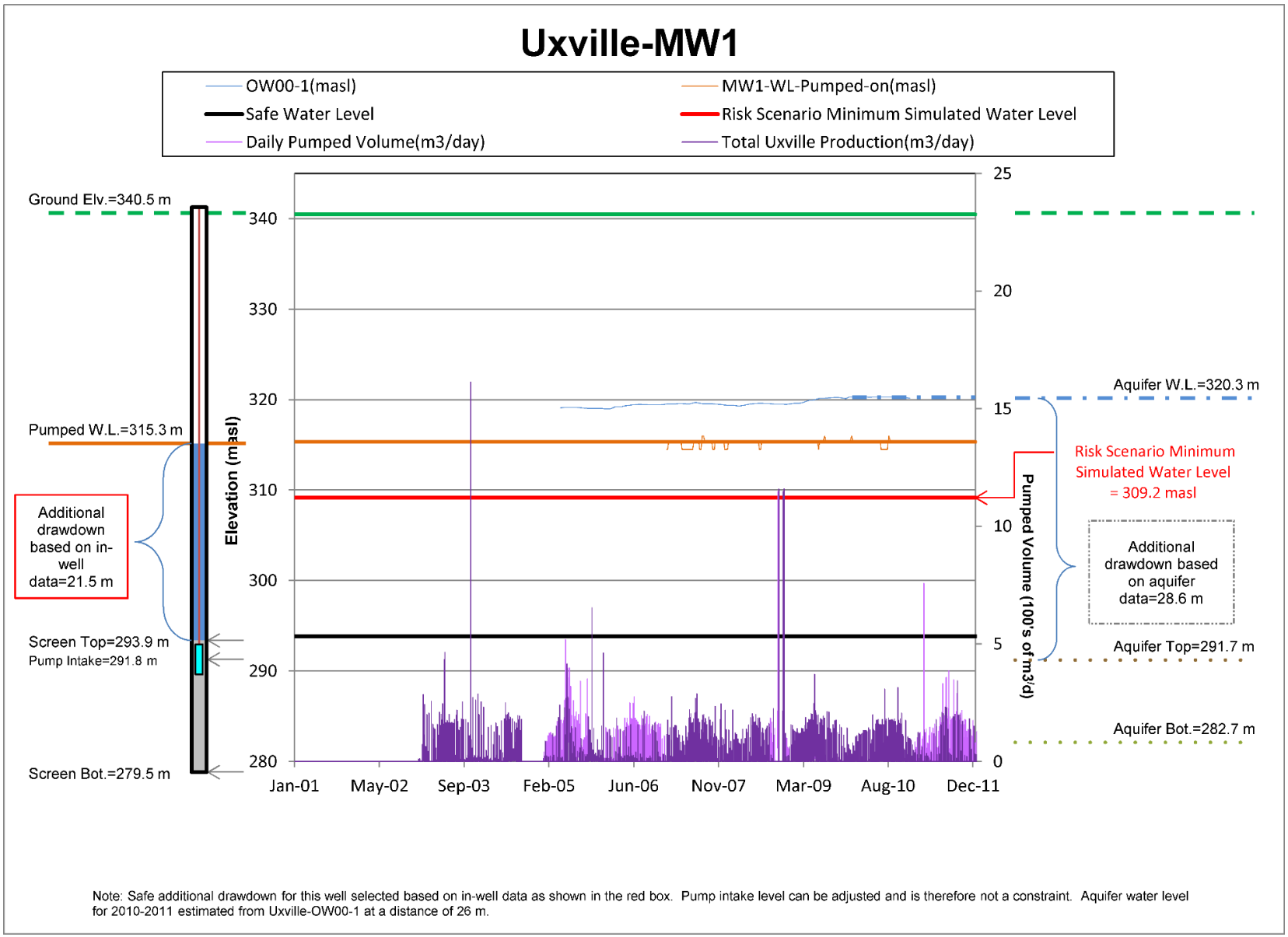
Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Stouffville MW#5 at a distance of 9 m.

York Region Tier 3 Water Budget - Available Drawdown Hydrographs

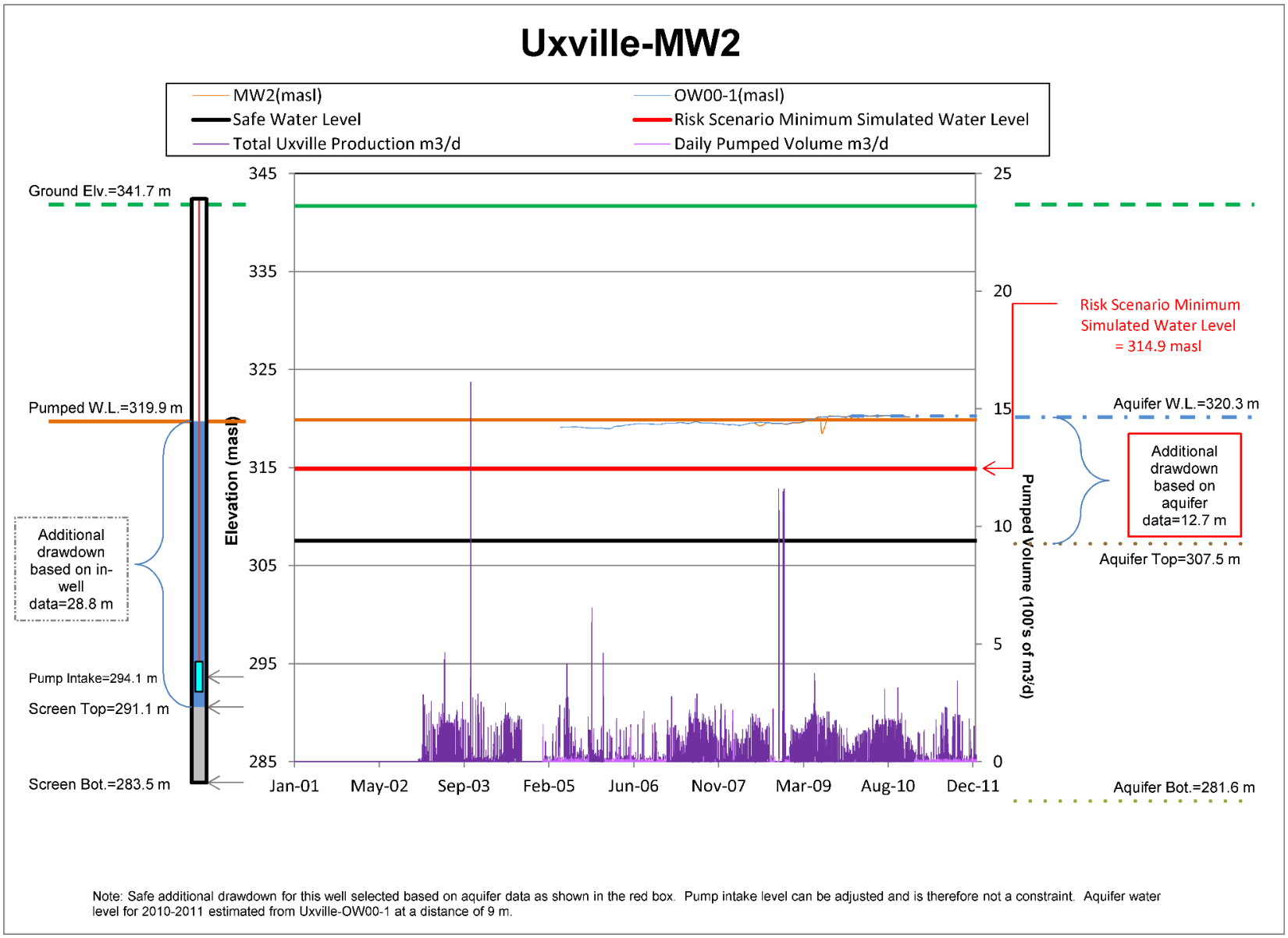
Stouffville PW 6



Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Stouffville MW#6 at a distance of 6.4 m. An additional drawdown of 8.2 m has been selected based on in-well conditions due to the unconfined nature of the aquifer. (Dewatering of the unconfined aquifer is not considered an issue because it is unconfined (or, at worst, semi-confined by ORAC silts).



Note: Safe additional drawdown for this well selected based on in-well data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Uxville-OW00-1 at a distance of 26 m.



Note: Safe additional drawdown for this well selected based on aquifer data as shown in the red box. Pump intake level can be adjusted and is therefore not a constraint. Aquifer water level for 2010-2011 estimated from Uxville-OW00-1 at a distance of 9 m.

C3.1 REFERENCE

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