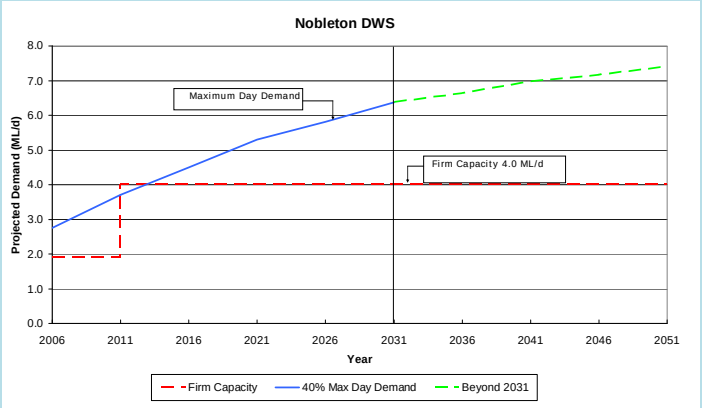
Water and Wastewater Master Plan Update — Servicing... for a safe and healthy environment

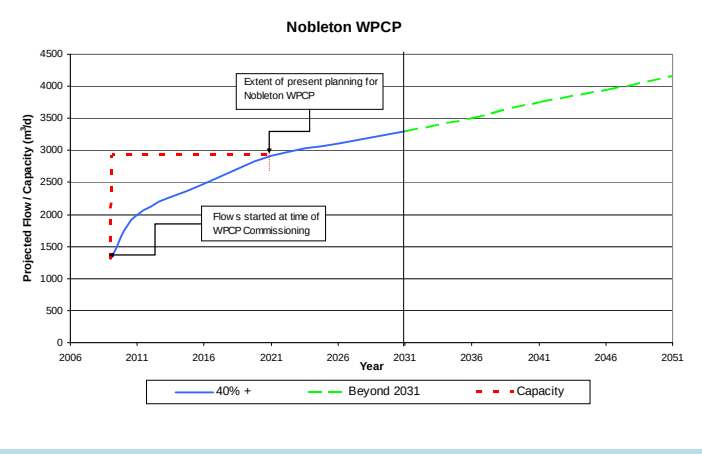
York Region

# Water and Wastewater Servicing Plan Nobleton


| Nobleton Servicing Projects | Total Project Costs | Time Period Required |
|---|---|---|
| Water servicing to 2051 | $15,747,000 | 2011 to 2026 |
| Wastewater servicing to 2051 | $35,600,000 | 2006-2011 |

## Water and Wastewater System Flow Projections



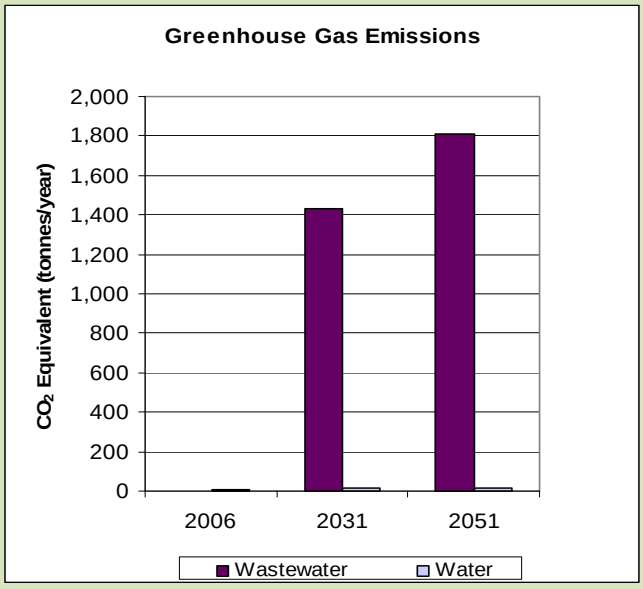

## Nobleton WPCP – Current and Projected Maximum Effluent Loadings to Humber River (Lake Ontario)

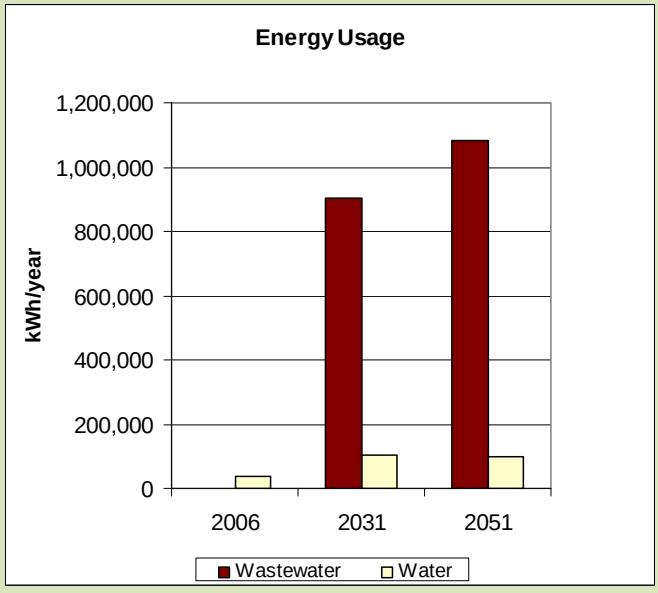
| Year | Average Day Flow ($m^3/d$) | $cBOD_5$ (kg/year) | TSS (kg/year) | Total P (kg/year) | $NH_3$-N (kg/year) |
|---|---|---|---|---|---|
| 2006 | -[1] | - | - | - | - |
| 2031 | 3,300[2] | 12,000[3] | 43,900[3] | 2,400[3] | 880[3] |
| 2051 | 4,200[2] | 15,200[3] | 55,500[3] | 3,000[3] | 1,100[3] |

Notes:

1. Servicing is currently provided by private on-site systems.
2. Projected wastewater flow based on community growth strategy; includes the benefit of current water efficiency strategy.
3. Loadings are based on proposed effluent limits for Nobleton WPCP to be completed in 2009 and projected wastewater flows.

# Water and Wastewater Servicing Plan
# Nobleton




## Water and Wastewater Servicing Outlook

### To 2031

***Water***

- Water demand currently exceeds the well capacity of 1.9 ML/d.
- New well currently planned to increase the firm capacity to 4.0 ML/d by 2011.
- Rapid growth in water demand is expected to exceed the increased well capacity of 4.0 ML/d by 2013.
- Additional storage of 2.5 ML.

***Wastewater***

- Growth in wastewater flow is expected to exceed the proposed WPCP capacity of 2,925 m3/d by 2020.
- The Nobleton WPCP discharges to the Humber River, which is presently categorized as Policy 2 with respect to phosphorous.
- At present offsetting nutrient reductions are required from other sources.
- No additional phosphorus loadings are possible and any future flows in excess of present capacity will require a higher degree treatment and further offsets.

### Beyond 2031

***Water***

- Peak demand of 7.4 ML/d is expected by 2051.
- Additional water supply required for system.

***Wastewater***

- Growth in wastewater flow is expected to increase by a factor of 3.2 to a peak demand of 4,100 $m^3$/d by 2051.