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## 8.0 Conclusions and Recommendations

### Conclusions

- The Trunk oversizing costs will be based on size and grade of trunk line as per the XP-SWMM model and Plan/Profile Drawings. These will be determined on a site specific basis between Aquatera and the participating developers as the trunk is extended.
- Spare capacity available in the 375mm sub-trunks along 100 Avenue (Highway 43) and 68<sup>th</sup> Avenue will allow for some growth. Once this capacity is fully utilized, the trunk sewer will need to be extended to allow development to continue.

### Recommendations

- Where practical, the Trunk sewer can be used as storage on an interim basis in conjunction with the Temporary Lift Stations to accommodate off-peak discharge. Further analysis will be required to ensure excessive surcharging does not cause basement/building sewage back-up.
- The estimated construction cost in 2007 dollars is \$26.3 Million with a servicing area of 1,605 Hectares plus an additional \$13.4 Million to accommodate the Clairmont surge pond Lift Station and twin force main to the 116<sup>th</sup> Street trunk.
- Information of the existing sanitary flows downstream of our connection point near bear creek and 68<sup>th</sup> avenue were provided by Aquatera in the form of hydrographs which were added to the model. Surcharging to approximately 3.4m below ground level was present at full build out of the 116<sup>th</sup> Street Trunk and other contributing areas. We recommend Aquatera confirm the capacity of the existing 1350mm trunk sewer as development of the East and 116<sup>th</sup> Trunk sewer approach full build out.

## CORPORATE AUTHORIZATION

This document entitled "Aquatera Utilities Inc – 116<sup>th</sup> Street Sanitary Trunk Sewer – Expanded System Including the Clairmont Surge Pond - Preliminary Design – Final Report" was prepared by Focus Corporation.

### FOCUS CORPORATION

PERMIT TO PRACTICE FOCUS CORPORATION	
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The Association of Professional Engineers, Geologists and Geophysicists of Alberta	

### PROFESSIONAL SEAL

