



InterOffice Memo

To: Public Works Committee
 From: David A. Dratnol, P.E., Village Engineer *dad*
 Through: Carl Goldsmith, Director of Public Works *cx*
 Date: October 7, 2009
 Subject: Storm Water/ Combined Sewer Modeling Project
 Estimate for additional flow monitoring

As requested by the Public Works Committee, Christopher B. Burke Engineering, Ltd. (CBBEL) has submitted the following estimate in regard to obtaining additional flow monitoring to determine the effects and value of the interim separation improvements on the existing separated storm sewer as determined by the flow model.

The parameters of the estimate are as follows:

- Monitoring at 4 locations
- Cost for 6-month, 12-month, and 24-month duration
- The work would include review and manipulation of the data to get it into XPSWMM format. For each storm chosen to analyze, CBBEL would input rain gage data (provided by Village), run the model, and compare it to the recorded data. For this cost estimate CBBEL assumed choosing 1 storm for every 3 months of data to model.
- At the end of the monitoring period, CBBEL would re-calibrate the XP-SWMM model as needed.
- After re-calibrating, they would run the interim separation scenario and analyze the impacts at the four monitoring locations.

Estimated Costs:

	<u>6-mo</u>	<u>1-yr</u>	<u>2-yr</u>
Flow monitoring cost	\$31,000	\$46,000	\$75,000
CBBEL modeling cost	\$10,000	\$16,000	\$26,000
TOTAL estimated cost	\$41,000	\$62,000	\$101,000

If it is determined that the longer term monitoring is desired, staff will explore the option of purchasing and operating flow monitors by Public Works forces as a way to reduce the monitoring cost.

This monitoring is a part of the preliminary engineering associated with the design and implementation of the sewer separation projects. The results of the monitoring will be used to model the system and design the SCADA system components associated with directing appropriate flows into the storm sewer system or back into the combined sewer depending on available storm sewer capacity.