

MEMORANDUM

April 18, 2007

TO: Village of Hawthorn Woods Water and Infrastructure Committee

FROM: Darren Olson, PE

SUBJECT: March 21, 2007 Rainfall Event

The Lake County Stormwater Management Commission (SMC) rain gage at Lake Zurich recorded 2.7 inches of rainfall on March 21, 2007. This rainfall depth is consistent with rainfall data from the U.S. Geological Survey (USGS) and the National Oceanic and Atmospheric Administration (NOAA). During the most intense portion of this storm event, which occurred between 3pm and 5pm, 1.8 inches of rain were recorded in less than 2 hours. This is equivalent to a 5-year return interval storm event, which has a 20% chance of occurring in any given year. As is typical for early Spring storms, the saturated and frozen ground during the storm event resulted in greater runoff than would be expected for typical ground conditions. Given the saturated ground conditions, it is estimated that the amount of runoff from this storm event was equivalent to a 25-year return interval storm event. This event has a 4% chance of happening in any given year.

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CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 W Higgins Road, Suite 600 Rosemont, Illinois 60018-4920 Tel (847) 823-0500 Fax (847) 823-0520