Tollgate Association
October 11, 2011 Special Board Meeting

Date and Time: October 11, 2011 at 7:00 am

Location: 131 Tollgate Way (Hogle residence)

Attending: Jim Hogle, Marie Murray, Margaret Melhem, Bob Donaldson, Keith Powell

At the request of President Jim Hogle and with the concurrence of Margaret Melhem and Bob Donaldson, a Special Board Meeting was called to discuss in advance of a meeting that Jim was to have with James and Anneliesa Hundt (#110) on Wednesday 12 October. That meeting's purpose was to review the design and build plans for the community, consider other approaches, and to engage the city to be more proactive in engineering a solution to address the water backflow issues that occur with these heavy rains.

Background – Jim Hogle met Sunday afternoon with James and Anneliesa Hundt. They discussed the flooding they experienced with the big rainfall last month. They had about one foot of water in their basement with the hard rain. It was apparent that they did review the information on the Tollgateway.org website including the 2006 hydrology report and showed good situational awareness about the drain and the backflow event. They invited Jim into their backyard and they reviewed the flows of water off their roof and into the drain. They discussed the likely building code requirement when the neighborhood was built to do storm water engineering sufficient to deal effectively with a ten year flood, and how these 100 and 75 year floods are coming much more frequently.

The Hundts' focus is on developing a storm water management plan so that it does not happen again to them or to or to their almost-as-vulnerable neighbors. They imagine that with sump pumps and backflow restrictors they could stop-up the basin near their door from filling much effectively protecting 110 – but leaving more water to flood their neighbors. Their hope was to go to the city water management meeting on the 17th of October and ensure that the city takes responsibility for the drains on and around Tollgate way – so that we can flush the water out of the neighborhood more quickly. They would like some help from the association – since they do not know how to proceed effectively with the city. Jim agreed that he would bring in others in the community more familiar with the flooding situation and meet with the Hundts on Wednesday.

History –The board reviewed the history of the development of Tollgate and the plan for water drainage for the area. Marie noted that concern over water drainage and flooding at #110 (then occupied by the Stevensons) led the association to order the Hydrology study in 2006. That report is available on line at: http://tollgateway.org/documents/drainage.htm.

Discussion – Tollgate drainage was designed according to standards for a '10 year flood'. In 2006 and again in 2011 heavy rainfall resulted in '100 year flood' conditions that overwhelmed the storm water system of all of Falls Church. The storm management plan in any urban area starts with water being absorbed into the soil. When saturated or on hardscape water runs off toward the storm drainage system. When that system is saturated water runs over land to the lowest point.

It was noted that Tollgate as a whole does not have a drainage or flooding problem but that one to three homes are vulnerable to prolonged heavy rains. While there is some occasional pooling in heavy rain, this drains fairly quickly under most circumstances, as designed.

However, #110 and, to a lesser extent, #108 and #112 lie at low points in the system. As a result, when the entire City system is stressed, "surcharge conditions" develop with the resulting water backing up, emerges from the lowest point in the system.

The storm drain system within Tollgate belongs to the Association up to the point where it joins the City system (near Berry Street.)

Hard covering the backyards in various homes during recent years has reduced the water absorption area within Tollgate, resulting in slightly larger water runoffs into the storm system and potentially overland.

Conclusions -

There are no easy fix as the storm drain system for the entire City is at issue during periods of extraordinary rain. There are other neighborhoods that are being far more drastically affected. There are some possible fixes that could reduce the particular vulnerability of #110 (and #108 & #112.) Jim Hogle can offer some suggestions when he meets with the Hundts, though they should secure professional consultation.

The meeting adjourned at 8:15.