

To: Chair and Members, Planning and Environment Committee

From: James R Keron

Subject: Forest City Industrial Stormwater Management Facility and Westminster Wetland Complex

Recommendation:

The Council's intent to rectify the damage in the Westminster Wetland PSW as indicated by the resolution passed at the Mar. 20/21 meeting referenced below is most welcome and should be applauded. However, the project to do so is more complex than simply working with Reforest London to plant trees. As was recommended in the "Next Steps" section of the SWM report to the Feb 27th meeting of this committee, it is critical that

"additional investigation (be undertaken) such that recommendations with respect to sustaining the features of the Westminster Wetland Complex may be made". P4

Put simply, planting trees without identifying and fixing the source of the problem would be a waste of time, effort and money as the newly planted trees would succumb just as the original tree cover did.

It is strongly recommended that this investigation be undertaken before any replanting.

Previous Reports Pertinent to This Matter.

Report submitted by Berta Krichker and recommended by John Braam to the Feb 27, 2012 meeting.

Background

I would like to raise a question with respect to councils resolution on a report from Stormwater Management (SWM) that went to council on March 20 and 21, 2012 regarding the die-back of trees within the Westminster Wetland Provincially Significant Wetland (PSW) and its relation to the Forest City Stormwater Management Facility. I apologize for the late comments but I did not know it was going to council nor did I even imagine it would do so. While Ms. Krichker and I disagree about the contents of the report which concluded that there is no evidence that the SWM facility was the cause of the problem (part a. of the council resolution), the issue I wish to raise relates to part b. of the resolution where city administration was directed to work with ReForest London as part of restoration efforts for the affected area.

As was noted in the AECOM report to SWM, the area of impacted trees is approximately 10 ha or 25 acres. While damage extends further south onto property owned by two adjacent property owners including the UTRCA, the bulk of the damage occurs on property owned by the City of

London and my mother, Mrs. Marion Keron, approximately 2.5 ha and 7.6 ha respectively by SWM estimation.

As it relates to the cause of the damage, I am in full agreement, as are other researchers, with the conclusion of the AECOM report that the damage was caused by a change in the hydroperiod such that flooding of the swamp floor in the summer months occurs to such an extent that the trees cannot survive.

I first became aware of the council resolution at a meeting that I had requested with Ms. Krichker that took place on April 2, 2012. Here I specifically refer to Part b) which states that

“the Civic Administration BE REQUESTED to work with ReForest London, as part of the One Million Tree Challenge, on tree plantings for this area. (2012-W10-00) (3/6/PEC)

I greatly applaud council's intent here to rectify the damage that has been created. However, planting trees in the affected area without fixing the cause of the problem would be a major waste of time, effort and money. We need to be able to say with certainty that the problem will not recur before planting trees or the newly planted trees will succumb to the inundation just like the original forest cover did. What did not make the resolution was SWM's recommendation in the **Next Steps** (p4) section of the report to this committee which states

“As stress and tree mortality is taking place within the Westminster Wetland Complex (a portion of which is on City lands) Council may consider undertaking **additional investigations** in the spring such that recommendations with respect to sustaining the features and functions of the Westminster Wetland Complex may be made.” (my emphasis)

In the meeting with Ms Krichker I think she was surprised that this did not make the resolution.

So regardless, of our continuing disagreement on the ultimate cause, SWM and I are in agreement that more investigations are required before it will be possible to attempt to restore the PSW.

Specifically we need to restore the original hydroperiod but unfortunately this easier said than done. To this end I have involved several people at three different universities with varying skill sets including hydrology, ecology, dendrochronology, remote sensing and storm water engineering who are pursuing various aspects of the problem. Also, with the approval of the UTRCA and at the recommendation of SWM, we are reopening a portion of the “historical drain”. It should be noted that the historical drain has been ineffective for at least 50 years prior to 2005 with no negative impact to the PSW. This drain originally ran from Dingman creek up to and past the location of the SWM berm and was intended to drain the marsh now occupied by the SWM quantity control area. As such most of the drain was on City property. The reopened drain will follow the approximate course of the original drain to the boundary with the City property and then follow the property line north so as to divert the water coming from the City property. When this drain is in place we are hopeful that the degradation will be halted on my

mother's property and it may be possible to consider restoration. Also discussions have taken place with the UTRCA and MNR on ways to protect the PSW from flood events originating in the creek (ie high creek levels cause flooding in the swamp) and to install some form of construction to simulate the original hydroperiod.

As to whether or not this drain will ameliorate conditions on the City property that remains an open question. Our observations from along the property line certainly indicate that standing water has been reduced but whether this benefit will extend to the entire City property remains to be seen. Personally, I do not believe it will make a significant difference until a channel for the water is opened directly to the SWM berm. While I would recommend that the city clean the drain through their property to the berm that action was rejected by SWM at our April 2nd meeting. So while some replanting may be possible on my mother's property later this year, I would not recommend any replanting on the City's property until we know for sure that the problem has been fixed.

So, going forward, as was recommended by SWM, what is required is "further investigations". I would suggest that this be done collaboratively and I am quite willing to share the independent research that has been initiated provided the respective researchers agree. Further since the land owned by the City has been significantly degraded since the City acquired a portion of the PSW it would seem logical that the City would have an interest in fixing the problem and restoring their lands. That the damage has occurred and to date the City has not displayed any concern does not speak well of the City's stewardship of the PSW and makes the term "Forest City" somewhat ironic.

I am certainly more than happy to see the intention of City Council to correct the damage and restore the PSW. If "working with Reforest London" implies doing the research to get to this point, then, that should be clearly stated. If it is simply a direction to Reforest London to go forth and plant trees, then it is a mission impossible. And if the intention was to do the research could you let me know who the contact is so that I could share the research and observations that I have.

July 26, 2012