

Waterloo Westside

OMB Files

PL071044

PL071047

PL071063

PL071065

**MINUTES OF ISSUES DISCUSSED BY THE ENVIRONMENTAL EXPERTS
(September 22, 2008)**

The following were participants in the discussions held on September 22, 2008.

For the Appellant: Dean Fitzgerald, Ecologist
Stan Denhoed, Hydrologist

For the Applicant: Cam Portt, Fisheries Biologist
Jim Dougan, Ecologist

For the Ministry of Natural Resources: Ken Cornelisse, Water Resources Coordinator Guelph District

For the Region of Waterloo: Chris Gosselin, Manager of Environmental Planning

For the City of Waterloo: Joel Cotter, Development Planner
Ron Ormson, Director of Engineering and Construction

FISH

1. *Has the Clair Creek tributary located on 340 Wilmot Line and 450 Wilmot Line been properly studied for fish habitat, water quality conditions and temperatures?*

Based on the discussion today, the Experts agreed that the available studies have adequately addressed fish habitat, water quality conditions and temperatures in the described areas. Dean Fitzgerald requested that it be noted that, in his view, these adequate studies were completed in 2004, and exclude the findings from the later studies.

2. *Has the Clair Creek tributary and any potential fish habitat located therein been properly protected in the design of the proposed development and by way of conditions of draft approval?*

Based on the discussion today, the Experts agreed that the design of the proposed development, including offline stormwater management facilities, and conditions of draft

approval will adequately protect the Clair Creek tributary and any potential fish habitat located therein.

3. *Is a fisheries impact evaluation merited or required with respect to Monastery Creek?*

Based on the discussion today, the Experts agreed that a fisheries impact evaluation is not merited or required with respect to Monastery Creek.

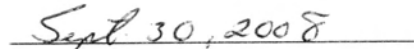
The undersigned Fish Experts hereby agree with these statements.

D. Fitzgerald, Expert for the Appellant



C. Portt, Expert for the Applicant

Date



Date

AMPHIBIANS

1. *Have the ponded water features on the property, including those located within ESPA 19 (Forested Hills), been properly studied for amphibians and other species?*

Based on the discussion today, the Experts agreed that the ponded water features on the property, including those within ESPA 19 (Forested Hills) have been adequately studied for amphibians and other species. This agreement is predicated on the understanding that for the ponds that are to be retained in accordance with the Draft Plans, there will be no alteration of the quality, quantity, direction, or timing (hydroperiod) of groundwater or surfacewater regimes that currently sustains these ponded water features. It is understood by the experts that the farm pond (known as Dougan Unit 17) will be eliminated.

2. *Has there been sufficient protection of potential amphibian habitat on the property in the design of the proposed development and in the adjacent ESPA 19 by way of draft conditions of approval?*

Based on the discussion today, the Experts agreed that there has been sufficient protection by way of conditions of draft approval of potential amphibian habitat in ponds along the west side of the southern block of Forested Hills E.S.P.A., the majority of which are understood to be dependent on surface water flow from lands within the E.S.P.A. and the proposed buffer along its western edge.

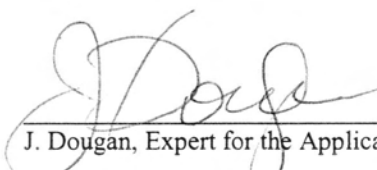
Wetland W12, located in the northern block of the E.S.P.A. just east of the Vista Hills lands, is understood to be dependent upon groundwater and surface water flows, a significant

portion of which are understood to originate on the Vista Hills development lands. The Experts agree that in order to prevent an adverse environmental impact as defined in the Regional Official Policies Plan, and as prohibited under Policy 4.3.15, a detailed hydrological study shall be carried out prior to any disturbance in the form of grading or placement of fill within the catchment area of this feature, to recommend measures for the protection of the surface water and groundwater regimes which sustain the feature. These recommendations shall be implemented and there shall be no adverse impacts on wetland W-12.

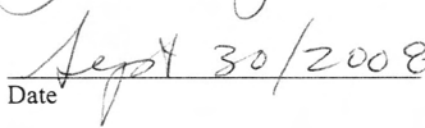
The undersigned Ecology/Environmental Planning Experts hereby agree with these statements.

D. Fitzgerald, Expert for the Appellant

Date



J. Dougan, Expert for the Applicant



Date

K. Cornelisse, Ministry of Natural Resources

Date

C. Gosselin, Region of Waterloo

Date

Exhibit #9

Susan Rogers

From: Johnston, Craig (Kitchener) [craig.johnston@stantec.com]
Sent: October 7, 2008 5:42 PM
To: sdenhoed@hardenv.com; Ray Blackport; Donald Corbett; ROrmson@city.waterloo.on.ca; JCotter@city.waterloo.on.ca; dnaylor; Robertson, Scott
Cc: Jim Dougan; Susan Rogers
Subject: Final Minutes - Technical Experts Meeting Water
Attachments: Meeting_Notes_260908_Final_Edits_Signed.pdf

Please find attached the final meeting minutes related to the water issues. I have also attached a copy of the edits received from Mr. Denhoed and the revised wording as agreed during discussions with the City (Joel and Ron) and myself.

Please sign a copy of the final meeting minutes and return to my attention by fax or as a PDF copy in e-mail.

Thanks

<<Meeting_Notes_260908_Final_Edits_Signed.pdf>>

Craig Johnston

Senior Hydrogeologist, Practice Leader
Stantec

Ph: (519) 585-7375

Fx: (519) 579-4239

craig.johnston@stantec.com

stantec.com

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

 Please consider the environment before printing this email.

07/10/2008

Meeting Notes

OMB Case No. PL071044

Technical Experts Meeting – Water



Stantec

Date: Thursday, September 25, 2008
Place/Time: Stantec Consulting, 49 Frederick Street / 2:00pm
Attendees: Jim Dougan, Ray Blackport, Donald Corbett, Joel Cotter,
Ron Ormson, Dave Naylor, Scott Robertson, Craig Johnston,
Stan Denhoed, Dean Fitzgerald

ISSUES FROM THE AFFIDAVIT OF STAN DENHOED

ITEM #1 - The development of the Waterloo West Side Development Lands will remove a significant contributing source area for an environmentally sensitive feature in the Environmentally Sensitive Protection Area 19 (ESPA 19). Specifically, the wetland area identified as W-12 within ESPA 19 will have the portion of its contributing source area that falls west of the ESPA 19 buffer area removed during the development of the Waterloo West Side Development Lands.

Mr. Denhoed is satisfied that groundwater is not a concern with respect to W12.

Mr. Denhoed has concerns as to whether the post-development surface water regime will maintain pre-development surface water drainage and specifically the water balance and timing of the surface water run off with respect to maintenance of wetland ecology in W12, and the prevention of adverse environmental impacts as defined in the Regional Official Policies Plan.

The experts agree that this issue can be addressed and resolved by the following:

1. Include the following condition:

"The Owner shall demonstrate, to the satisfaction of the GRCA, the City of Waterloo, and Regional Municipality of Waterloo:

- (a) That post-development surface water drainage for the catchment area of W-12 that is within the proposed development lands be maintained in order to prevent an adverse environmental impact from the development as defined in the Regional Official Policies Plan, and prohibited under Policy 4.3.15. Pre-development surface water hydrology is to be determined through pre-development monitoring; or
- (b) That an assessment of the ecological characteristics and surface water hydrology of W-12 be undertaken to determine what surface water

regime is required to prevent adverse environmental impacts to the wetland in the form of alterations of surface water flows or hydroperiod which could in turn negatively affect representative native species inhabiting this feature. The detailed engineering submission shall demonstrate that the surface water regime can be maintained at comparable levels under post-development conditions."

For the purposes of the foregoing, W-12 is a wetland located within ESPA 19 on the north side of the North Branch of Clair Creek, approximately eighty (80) metres from the nearest point on Draft Plan of Subdivision 30T-97024 (Vista Hills), being Block 100.

ITEM #2 – There is insufficient supporting documentation to ascertain that the clean water collection system will result in a similar volume and distribution of recharge water as presently occurs.

Mr. Denhoed has requested that the conditions of draft approval with respect to the required monitoring of the CWC system be clarified to ensure continued function and performance of the CWC.

The experts agree that this issue can be addressed and resolved by the following:

1. Add the following at the end of City condition of approval AP-F-29:

"Monitoring shall include an assessment of the performance of the CWC system to confirm that it is functioning as designed and approved, including resulting in the maintenance or enhancement of pre-development recharge rates. Performance monitoring shall be conducted during development and post-development, to the satisfaction of the City of Waterloo."

2. It is acknowledged by the experts that the City requires a monitoring program for the CWC be developed in conjunction with the detailed design of the CWC. The monitoring program will be used to confirm that the CWC is functioning as designed and within approved operating parameters. It is further acknowledged that if the CWC is not functioning as designed and approved, the City will require the developer to remedy the problem. The City will hold a letter of credit equal to 100% of the value of the CWC system, which will not be released until the City is satisfied that the system is functioning as designed and approved. It is further acknowledged that the City has the right to deny further registrations until any issues with the CWC is remedied.

ITEM #3 – There has been inadequate monitoring to accurately calculate existing runoff conditions, infiltration conditions and groundwater discharge to Clair Creek and therefore these components of the water balance may be grossly inaccurate.

The experts agree that this issue can be addressed and resolved by the following:

1. Installation of additional mini-piezometers (2 to 3) at additional locations along the North Branch of Clair Creek. The approximate locations are shown on the attached figure and will be incorporated into the on-going pre-development monitoring program.

ISSUES FROM THE PROCEDURAL ORDER – Water

1. **Have the subject lands been studied from a watershed and subwatershed perspective, and if yes, are the proposed developments consistent with the recommendations of the watershed and subwatershed planning?**

The experts agree this issue has been resolved subject to the implementation of Items No. 1, 2 and 3 above related to Mr. Denhoed's Affidavit.

2. **Have the subject lands been studied from a hydrogeological perspective, and if yes:**
 - a. **Was the study properly undertaken?**
 - b. **Are the recommendations of the study appropriate?**
 - c. **Are the recommendations of the study being implemented through the design of the subdivision and/or by way of conditions of draft approval?**

The experts agree this issue has been resolved subject to the implementation of Items No. 1, 2 and 3 above related to Mr. Denhoed's Affidavit.

3. **Has a water balance for the properties been properly calculated for the purpose of determining predevelopment groundwater infiltration rates?**

The experts agree that the answer to this issue is yes.

4. **Is there sufficient protection through the design of the development and/or by way of conditions of draft approval to maintain groundwater infiltration in accordance with applicable legislation/policy?**

The experts agree this issue has been resolved subject to the implementation of Items No. 1, 2 and 3 above related to Mr. Denhoed's Affidavit.

Stantec

Thursday, September 25, 2008
OMB Case No. PL071044
Technical Experts Meeting - Water
Page 4 of 5

5. **Is sufficient protection provided against any potential risk of flooding through the design of the proposed developments and/or by way of conditions of draft approval?**

The experts agree that the answer to this issue is yes.

6. **Is there sufficient protection through the design of the development and/or by way of conditions of draft approval regarding potential salt contaminant impacts?**

Mr. Denhoed has not studied the matter and as a result can offer no comment as an expert witness.

7. **Has the groundwater and surface water been properly monitored over a 12 month period?**

The experts agree that the answer to this issue is yes subject to Item No. 3 above related to Mr. Denhoed's Affidavit.

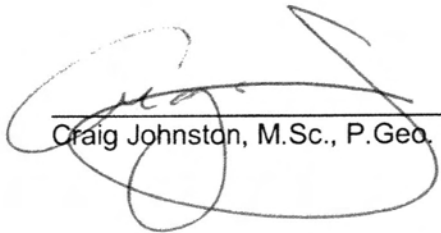
8. **Is an assessment of Monastery Creek warranted through the evaluation of the proposed subdivisions, and if yes, is there sufficient protection through the design of the development and/or by way of conditions of draft approval to appropriately mitigate impacts on Monastery Creek?**

The experts agree that an assessment is not required.

We hereby agree that these minutes represent a true and accurate record of the matters agreed to by the experts in water issues attendant at the meeting:

Stanley Denhoed, M.Sc., P.Eng.

Dated



Craig Johnston, M.Sc., P.Geo.

OCTOBER 7, 2008

Dated

Scott Robertson, P.Eng.

Dated

Stantec

Thursday, September 25, 2008
OMB Case No. PL071044
Technical Experts Meeting - Water
Page 5 of 5

Dave Naylor, P.Eng.

Dated

Ron Ormson, P.Geo.

Dated

Donald Corbett, P.Geo.

Dated

Ray Blackport, M.Sc., P.Geo.

Dated