

## PUBLIC OPEN HOUSE AND WORKSHOP

### NIAGARA ON THE LAKE WATERSHEDS STUDY

The Niagara Peninsula Conservation Authority (NPCA), along with other agencies, is developing a plan to protect and improve the health of watershed ecosystems in the Niagara-On-The-Lake area. The development and implementation of plan will depend heavily on the support and commitment of local landowners and residents.

We need your participation to make this a success!

Come and share your KNOWLEDGE, your GOALS and your VISION for the future of your watershed.

You are invited to join the NPCA and others who share a common interest in improving watershed health at the kick off open house & workshop for the Niagara-On- The-Lake Watersheds Plan:

Thursday, April 20<sup>th</sup>, 2006  
7:00 – 9:00 pm  
Presentation at 7:15 pm  
Niagara Credit Union/Centennial Arena  
Centennial Arena Meeting Room  
1565/1567 Four Mile Creek Road  
Virgil, Ontario



For information, please contact Dave Maunder, Aquafor Beech at 1-866-306-3885 ext. 290 or [maunder.d@aquaforbeech.com](mailto:maunder.d@aquaforbeech.com),  
or Suzanne McInnes, NPCA at 905-788-3135 ext. 235 or [smcinnnes@conservation-niagara.on.ca](mailto:smcinnnes@conservation-niagara.on.ca)

# Niagara-on-the-Lake Watershed Plan

## Public Workshop #1

April 20, 2006

*Meeting Record*



**April 20, 2006, 6:30 p.m. - 9:00 p.m.**  
**Niagara Credit Union/Centennial Arena, 1565/1567 Four Mile Creek Road**  
**Niagara-on-the-Lake, Ontario**

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*This meeting record was prepared by Lura Consulting. It summarizes the key discussion points and outcomes from Public Workshop #1 held on April 20, 2006 as part of the Niagara-on-the-Lake Watershed Plan. The contents of this record are subject to review by meeting participants. Please forward any comments to Jean-Louis Gaudet of Lura Consulting at (416) 536-2215, by fax at (416) 536-3453, or by email at [jgaudet@lura.ca](mailto:jgaudet@lura.ca) by 20 July, 2006.*

### **Meeting Purpose**

This workshop was held to introduce the Niagara-on-the-Lake (NOTL) Watershed Plan project to the community and to provide participants with the opportunity to provide feedback into the study. Specifically, the purpose of the Public Workshop #1 was to:

- Introduce the Niagara-on-the-Lake Watershed Study and the planning team; and
- Share ideas on issues, goals and objectives for the future of the Niagara-on-the-Lake Watershed.

### **Open House**

Participants were invited to review a series of displays that focused on background information and the process for the NOTL Watershed Plan project.

### **Participants**

A total of 48 participants participated in the workshop. A complete list of participants is included in Appendix A.

### **Welcome, Agenda Review and Introductions**

#### **David Dilks, Lura Consulting, Workshop Facilitator**

David welcomed everyone to the meeting and introduced himself as the meeting's facilitator. He noted that Lura's role in the project is to provide third-party facilitation and reporting for the public workshops. He reviewed the proposed meeting agenda and format. A copy of the agenda is included in Appendix B.

Following the agenda review, David facilitated a round of introductions.

### **Presentation**

#### **Presentation by Brian Hindley, Aquafor Beech Limited**

Brian provided an overview of the Watershed Plan process and work completed to date. Topics covered in the presentation included:

- Introduction to the project;
- Photo overview of the study area;
- Objectives of the study;
- Land uses;
- Fishery resources;
- Water resources;
- Surface geology;
- Terrestrial resources;
- Study uses;
- Study goal;
- Study objectives; and
- Project next steps.

A copy of the presentation is included in Appendix E.

Workshop participants were invited to ask questions about the presentation. A summary of the questions and comments is presented below. Responses, where provided, are included in italics.

Q: Who specified that drainage ditches should be included in the study mandate? Who said that the study should blend the natural with the man-made?

A: *The direction for the study is provided by the Conservation Authority.*

Q: Does the Niagara Peninsula Conservation Authority (NPCA) have authority over drainage ditches?

A: *No.*

Q: Then why include the ditches as part of the study? Why look at them if they are not in the NPCA's jurisdiction and if there is nothing the NPCA can do about them?

A: *There could be issues with the ditches that affect the watercourses and have impacts on the watershed.*

C: This area is in the Greenbelt. There are too few property rights within the Greenbelt and there are too many people walking across our properties.

Q: The NPCA wants to bring back tree cover. There is only about 2% tree cover left in NOTL. The NPCA has not yet figured out what trees they want to plant. Are peach trees protected?

A: *No.*

C: The trees protect the watershed. The NPCA needs to think about what native trees should be protected.

A: *Tree cover is an important issue to address as part of this project.*

Q: Is everyone aware of the designations they have put on our properties? We only found out about the latest restrictions by getting a letter from the NPCA saying that we could only add on to our buildings by a small percentage. The NPCA is telling people what they can and can't do. If the NPCA wants control of the land, then they can buy it.

A: *Communication and education is needed to show what regulations exist around land uses.*

### **Roundtable Discussion**

After the presentation question and answer period, David Dilks introduced the roundtable discussion portion of the workshop. During small table discussions, participants used the workshop workbook to:

- Identify the key issues related to the watershed study;
- Provide feedback on the study's goal and objectives; and
- Advise the study team of any local information or data that would be useful for the study.

This section provides a summary of highlights of the roundtable discussion as well as written feedback received from workbooks submitted following the meeting. Some participants felt the wording of the questions introduced a bias, which may explain why few workbooks were returned. A complete listing of all the feedback provided through the table discussions and the individual workbooks is presented in Appendices C and D.

### **Key Issues**

The three most common issues included **irrigation**, **drainage**, and **property rights**. Specific comments about these issues included:

### ***Irrigation***

- Water for irrigation is very important and many farmers have made investments in equipment.
- The importance of irrigation should be included in the study.
- Municipal drains are used to distribute water for irrigation.
- Irrigation is needed for crops.
- Irrigation is essential – particularly for tender fruits – as climate change is making summers hotter.

### ***Drainage***

- The drains require maintenance so they allow the flow of water.
- Farmers use municipal drains for drainage. Farmers need an outlet for their drainage tiles and need to be able to drain their fields; otherwise, they cannot farm.
- Drainage is important for crops.
- There are liability issues associated with drainage.

### ***Property rights***

- Individual property rights must be looked at. People are walking across farm properties and trespassing.
- Homes in areas designated as natural systems face renovation or rebuilding restrictions.
- There needs to be greater enforcement of the trespassing act to prevent people from trespassing onto farms.
- Property rights are of paramount consideration.

Other issues raised included:

- **The inclusion of drainage ditches in the study objective** – Ditches are man-made and should be removed from the study;
- **The diversion of water from the canal to maintain irrigation;**
- **Local representation on the study team** – the committee advising the study team should include a local person who has an established history with the area;
- **Liability** – the current legal climate leaves farmers vulnerable;
- **Rapid run off** – there is vertical drainage into Four-Mile Creek;
- **Erosion;**
- **Sediment in water courses;**
- **Balancing the ecosystem with agriculture and the economy;** and
- **Awareness of how drainage ditches are classified.**

### **Goals and Objectives**

Participants were asked if they agreed with the study goal and if anything was missing from it or should be changed.

The most common addition mentioned was the **importance of irrigation**. Many of the participants felt that the importance of irrigation should be included in the study goal. Other suggested topics to incorporate into the study objectives included:

- The **impact of existing, new and proposed regulations** on farming, on individual properties, and on people in neighboring properties;
- **Property rights**; and
- **Protection for farmers** and their livelihoods.

Many of the participants felt that **drainage ditches should be removed** from the study objectives. It was felt that these are man-made and are not streams.

### **Local Information**

Workshop participants had many suggestions for incorporating local knowledge into the watershed study. In particular, it was suggested that farmers and local people be consulted on for the following topics:

- Drains (for example, the history of specific drains, how they are used, if they are natural or man-made);
- Baseflows;
- The historical uses and original intentions for water reservoirs and drains;
- How fish in streams, ditches and reservoirs can impact farm equipment;
- The history of fish in drains (for example, where the fish have been introduced by farmers); and
- The nature and wording of questions to be asked at future public consultation meetings, to ensure that the phrasing is not leading or biased against farmers.

It was noted in one of the working group workbooks that Lavigne Drain was artificially constructed and is in no way a natural drain. The group said that the drain was constructed around 1970 by farmers who used a construction company to dig straight ditches through their properties for the sole purpose of field drainage. The drain fills in the spring and then dries for the whole summer, except for water that is pumped in for irrigation. The group added that more farmers should be on the watershed plan committee.

In an individual workbook, a comment was made that man-made drainage ditches fall under the mandate and directives of the Drainage Act, which was proclaimed into force April 1<sup>st</sup>, 1976. The author also said that he, as a grape grower in NOTL, would participate in any and all workshops that identify and separate water sources as natural and man-made.

### **Closing Remarks**

After the discussions were completed, David encouraged the meeting participants to complete the workbooks and return them by Thursday, May 4<sup>th</sup>. Brian thanked the participants for coming out to provide their feedback and noted that a second public workshop will likely take place in late June.



Appendix B: Workshop Agenda

## Niagara-on-the-Lake (NOTL) Watershed Plan Public Workshop #1

April 20, 2006

6:30 p.m. - 9:00 p.m.

Niagara Credit Union/Centennial Arena

1565/1567 Four Mile Creek Road, Niagara-on-the-Lake, Ontario

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### AGENDA

**Meeting Purpose:**

- *Introduce Niagara-on-the-Lake Watershed Study and the planning team*
- *Share ideas on issues, goals and objectives for the future of the Niagara-on-the-Lake Watershed*

**6:30 pm      Open House**

**7:00 pm      Welcome to Participants**  
Niagara Peninsula Conservation Authority (NPCA)

**7:05 pm      Introductions and Agenda Review**  
Lura Consulting

**7:10 pm      Presentation**  
Aquafor Beech

**7:40 pm      Discussion**

**8:55 pm      Closing Remarks**

**9:00 pm      Adjourn**



**Appendix C: Summary of Table Workbooks**

Six summary table reporting workbooks were submitted after the workshop. The feedback received from the workbooks is presented below.

**Question 1a:** Some potential issues that have been identified in the NOTL Watershed study are listed below. Please rank each issue in order of importance (1 - most important, 5 – least important). Why?

<b>Potential Issue</b>	<b>Rank (# of Responses)</b>	<b>Comments on Why</b>
Water for Irrigation (availability, quality)	Most important (4)	<ul style="list-style-type: none"> <li>(Most important) Economic viability.</li> <li>(Most important) Agricultural tourism.</li> </ul>
Lack of Baseflow	Somewhat important (2) Important (1)	
Diversion of Flows	Most important (1) Important (2)	<ul style="list-style-type: none"> <li>(Important) A lot of open questions, for example diversion into ponds.</li> </ul>
Municipal Drain Maintenance and conflicts with Fisheries	Most important (1) Somewhat important (1) Least important (1)	<ul style="list-style-type: none"> <li>(Least important) Primarily constructed to provide flood protection for arable land.</li> <li>(Least important) Very little concern, not used during spawning time.</li> </ul>
Erosion and Sedimentation of Watercourses	Most important (1) Somewhat important (1) Important (1)	
Private Property Flooding/Erosion	Most important (1) Somewhat important (1)	<ul style="list-style-type: none"> <li>(Somewhat important) Farmers protect.</li> </ul>
High Flows and Pollutants from Urban Storm Sewers	Most important (1) Not very important (1) Least important (1)	<ul style="list-style-type: none"> <li>(Not very important) Not for towns around this lake. Flows more to Lake Ontario.</li> </ul>
Lack of Riparian Vegetation	Most important (1) Not very important (1) Least important (1)	
Virgil Reservoirs (Odour and Water Quality)	Most important (1) Somewhat important (1) Least important (1)	<ul style="list-style-type: none"> <li>(Most important) Do not stir up the bottom.</li> </ul>
Siltation within Watercourses	Most important (1) Somewhat important (1) Important (1)	
Lack of Access to natural areas/ shorelines	Somewhat important (1) Least important (2)	<ul style="list-style-type: none"> <li>(Somewhat important) Keep the public natural areas public. Note: natural is not the present status quo.</li> </ul>
Loss of Natural Stream Functions	Important (1) Not very important (1)	
Impacts on Agricultural Lands from Wildlife	Most important (1) Somewhat important (1) Not very important (1)	<ul style="list-style-type: none"> <li>(Most important) Bird Problems.</li> </ul>
Quality/Quantity of well water	Most important (1) Important (1)	<ul style="list-style-type: none"> <li>(Somewhat important) Note: high sulfur content – this is naturally occurring.</li> </ul>
Sources of Pollution to Streams (e.g. Landfills, aggregates, industry)	Most important (2) Important (1)	

Potential Issue	Rank (# of Responses)	Comments on Why
Impacts on Watercourses from agricultural practices	Most important (1) Important (3)	<ul style="list-style-type: none"> <li>(Important) The erosion content is a concern, not the nutrient or pesticide run-off.</li> <li>(Important) Farmers are good stewards of the land – they live off of it.</li> </ul>

**Question 1b:** As you look at the list of issues are there any ADDITIONS that you suggest?

- #1 – Drainage – Need to drain tile systems and get water to Lake Ontario as soon as possible. #2 – Irrigation – use of drainage drains to distribute water for irrigation. #3 – property rights – set back restrictions on our properties restrict out use for farming. Don't want people trespassing on our properties.

**Question 2a:** Do you agree with the draft study goal? Why or why not?

- No! We would like our drainage systems not included in watershed studies. We would like a study to see how regulations would impact farming.
- No, because it does not take into account individual property rights.
- The importance of the irrigation system should be part of the study goal.
- Remove the drainage ditches from the study goal.

**Question 2b:** Some of the objectives that are being considered for the Watershed Study are listed below. Please indicate whether or not you agree with these draft objectives (1 – strongly agree, 5 – strongly disagree). Why?

Study Objectives	Agreement (# of Responses)	Comments on Why
<b>Communication &amp; Education</b>		
Demonstrate and promote awareness of the linkages between clean water, healthy lifestyle, economic viability of rural and urban land use.	Strongly agree (1) Agree (1) No opinion (1)	<ul style="list-style-type: none"> <li>(General comment) We agree with general items, but it is the details that are the issues.</li> <li>(Agree) Natural rehabilitation is desirable but not at the expense of economic impact of farmers.</li> </ul>
Promote the use of surface and ground water having regard to human, agricultural, and ecological needs.	Strongly agree (1) Agree (2)	<ul style="list-style-type: none"> <li>Agree) Safeguard irrigation needs for agricultural needs.</li> </ul>
Promote environmental stewardship of aquatic and terrestrial habitats.	Disagree (1)	
Promote environmental stewardship and a better understanding of the importance of ecological functions of the NOTL Watershed.	Agree (1) Disagree (1)	<ul style="list-style-type: none"> <li>(Disagree) Prevent further deterioration of water courses.</li> </ul>
<b>Water Quantity</b>		
Manage flooding and erosion risks to human life and property to within acceptable limits.	Agree (1)	

<b>Study Objectives</b>	<b>Agreement (# of Responses)</b>	<b>Comments on Why</b>
Maintain, enhance or restore stream processes to support human uses, agricultural needs and natural habitats.	Strongly agree (2) Disagree (1)	<ul style="list-style-type: none"> <li>(Disagree) No violation of property rights (trespassing).</li> </ul>
Manage stream flow to reduce erosion impacts on habitats and property.	Agree (2)	
<b>Water Quality</b>		
Maintain or improve water quality conditions in watercourses in order to support ecological and human use functions.	No opinion (1) Disagree (1) Strongly disagree (1)	<ul style="list-style-type: none"> <li>(Strongly disagree) Human use encroaches on property rights.</li> </ul>
Reduce or eliminate objectionable deposits, nuisance algae growth, turbidity and odour to improve aesthetics of the area surface waters.	Strongly agree (1) Agree (1) Disagree (1)	
<b>Aquatic Communities and Habitats</b>		
Protect, enhance or restore populations of native aquatic species and their habitats.	No opinion (1) Disagree (1) Strongly disagree	
<b>Terrestrial Communities</b>		
Protect, enhance or restore the stability, diversity and linkages between habitats that support terrestrial species and communities.	Disagree (3)	<ul style="list-style-type: none"> <li>(Disagree) Too costly impact on viability of farm economy.</li> </ul>
<b>Social/Economic</b>		
Identify and promote the social and economic benefits of a healthy watershed system.	Strongly agree (2) Disagree (1)	<ul style="list-style-type: none"> <li>(No response) Be practical and logical.</li> <li>(Disagree) Too much urban development to restore to natural condition.</li> </ul>

**Question 2c:** As you look at the identified goals and objectives are there any CHANGES or ADDITIONS that you suggest?

- Whatever regulations proposed would not have an economic impact on farmers. Spell out specifics of what is considered natural conditions of habitat of aquatic species and their habitats.
- See how regulations affect farmers' ability to farm.
- Overriding these objectives are the importance of individual property rights – should be consulted on issues and proposals at proper time of year.

**Question 3:** Do you have any LOCAL INFORMATION OR DATA that you believe would be useful for the NOTL Watershed Study (it may help if you refer to the categories outlined on page five, six and seven)?

- Lavigne Drain was artificially constructed and is no way a natural drain. It was constructed about 1970 by farmers who got a construction company to dig straight ditches through their properties for field drainage only. The drain fills in spring and dries for the whole summer except for water pumped in for irrigation. Get more farmers on watershed committee.

**Additional Comments:**

- Property rights should be paramount. Irrigation is essential with changing climate (greenhouse effect – hotter, dryer system). Liability concerns of public access. Address flow (storm) surge from urban areas e.g. Virgil storm drainage into 4 mile creek.
- Drainage ditches should be used only as drainage ditches and also to distribute water for irrigation. They should not be considered natural systems.

**Appendix D: Summary of Results from Individual workbooks**

Participants were invited to submit their feedback on individual workbooks. Some participants felt the wording of the questions introduced a bias, which may explain why few workbooks were returned. Seven workbooks were submitted, and the feedback received is presented below.

**Question 1a:** Some potential issues that have been identified in the NOTL Watershed study are listed below. Please rank each issue in order of importance (1 - most important, 5 – least important). Why?

Potential Issue	Rank (# of responses)	Comments on Why
Water for Irrigation (availability, quality)	Most Important (6) Somewhat important (1)	<ul style="list-style-type: none"> <li>• (Most important) Part of Drainage Act and controlled by Drainage Act.</li> <li>• (Most important) Return on investment.</li> <li>• (Most important) Expansion and enhancement of irrigation is critical. Fruit growing is not sustainable without it.</li> <li>• (Most important) In order to make a living and feed people, some places need to irrigate.</li> <li>• (Most important) Needed for our crops.</li> </ul>
Lack of Baseflow	Most Important (1) Somewhat important (1) Least important (3)	<ul style="list-style-type: none"> <li>• (Least important) Never had in summer.</li> <li>• (Least Important) You didn't stipulate where the lack of base flow would be.</li> <li>• (Least important) Drainage ditches have none.</li> <li>• (No response) Part of Drainage Act and controlled by Drainage Act.</li> </ul>
Diversion of Flows	Most Important (3) Somewhat important (2) Least important (1)	<ul style="list-style-type: none"> <li>• (Most important) For Irrigation – Fisheries have no place in municipal drains or irrigation ditches.</li> <li>• (Most important) Is necessary for irrigation.</li> <li>• (Least important) Diversion from where?</li> <li>• (No response) Supplement water to man-made ditches from natural available sources.</li> </ul>
Municipal Drain Maintenance and conflicts with Fisheries	Most Important (2) Somewhat important (1) Least important (4)	<ul style="list-style-type: none"> <li>• (Most important) Supplement water to man-made ditches from natural available sources.</li> <li>• (Least important) We paid for the digging and maintenance of ditches.</li> <li>• (Least important) Irrigation must take precedence over "fisheries" – these are drains, not streams.</li> <li>• (Least important) Do we have conflicts with fisheries?</li> <li>• (Least important) Drains need to be maintained to be effective.</li> </ul>

<b>Potential Issue</b>	<b>Rank (# of responses)</b>	<b>Comments on Why</b>
Erosion and Sedimentation of Watercourses	Most Important (1) Important (4) Not very important (1) Least important (1)	<ul style="list-style-type: none"> <li>• (Important) Part of maintenance.</li> <li>• (Not very important) Don't want to lose good land due to erosion.</li> <li>• (Least important) This is a natural occurrence.</li> <li>• (No response) For drainage ditches outlined under the drainage act.</li> </ul>
Private Property Flooding/Erosion	Somewhat Important (1) Important (3) Not very important (1) Least important (2)	<ul style="list-style-type: none"> <li>• (Important) Who's property? Where?</li> <li>• (Least important) People should not build in low lying areas.</li> </ul>
High Flows and Pollutants from Urban Storm Sewers	Most Important (2) Important (3) Not very important (1)	<ul style="list-style-type: none"> <li>• (Important) Not affected now.</li> <li>• (Important) Control of pollutants from residences and developments necessary.</li> </ul>
Lack of Riparian Vegetation	Most Important (1) Important (2) Not very important (2) Least important (2)	<ul style="list-style-type: none"> <li>• (Important) Not wanted along drains because of pests in crops.</li> <li>• (Not very important) Very little erosion.</li> <li>• (Not very important) We have to monitor pollutants and put claims in place in urban areas to slow flow and prevent erosion of farmers' land.</li> <li>• (Least important) There should be no limits to agriculture uses adjacent to ditches.</li> <li>• (Least important) We have lots of vegetation on our properties.</li> </ul>
Virgil Reservoirs (Odour and Water Quality)	Important (1) Not very important (2) Least important (3)	<ul style="list-style-type: none"> <li>• (Not very important) Odor and water quality for what?</li> <li>• (Not very important) Natural occurrences.</li> <li>• (Least important) Not affected.</li> </ul>
Siltation within Watercourses	Somewhat Important (2) Important (2) Not very important (1) Least important (1)	<ul style="list-style-type: none"> <li>• (Somewhat important) As it impacts irrigation.</li> </ul>
Lack of Access to natural areas/ shorelines	Most important (1) Somewhat Important (2) Not very important (1) Least important (3)	<ul style="list-style-type: none"> <li>• (Least important) Who wants access to private property? Who will pay the liability insurance?</li> <li>• (Most important) Trespassing and vandalism to crops.</li> </ul>
Loss of Natural Stream Functions	Not very important (1) Least important (5)	<ul style="list-style-type: none"> <li>• (Least important) For what reason? Ditch is on my land.</li> <li>• (Least important) What stream functions are you talking about? Stream always took water to the lake.</li> <li>• (No response) What do you mean?</li> </ul>

<b>Potential Issue</b>	<b>Rank (# of responses)</b>	<b>Comments on Why</b>
Impacts on Agricultural Lands from Wildlife	Most important (3) Important (2) Least important (1)	<ul style="list-style-type: none"> <li>• (Most important) Birds damaging grapes, deer damaging plants.</li> <li>• (Most important) Loss of income and high cost for protection of crops. Noise irritant for neighbours.</li> <li>• (Important) We have to protect agricultural lands. Wildlife won't grow food for our cities.</li> <li>• (Least important) Birds are a large problem for grape growers.</li> </ul>
Quality/Quantity of well water	Most important (2) Somewhat Important (1) Important (2) Not very important (1) Least important (1)	<ul style="list-style-type: none"> <li>• (Most important) Source of water for most farms.</li> <li>• (Not very important) We need drinking water.</li> </ul>
Sources of Pollution to Streams (e.g. Landfills, aggregates, industry)	Most important (2) Somewhat Important (2) Important (1) Not very important (1)	<ul style="list-style-type: none"> <li>• (Most important) Clean water is needed for irrigation.</li> <li>• (Somewhat important) Don't know.</li> <li>• (Not very important) No one wants pollution.</li> </ul>
Impacts on Watercourses from agricultural practices	Somewhat Important (2) Least important (4)	<ul style="list-style-type: none"> <li>• (Least important) Good impact.</li> <li>• (Least important) Irrigation ditches are not watercourses, ditches are needed for drainage. What types of impacts?</li> <li>• (Least important) I think farms are your best friend when it comes to maintaining water courses.</li> <li>• (Least important) Not a concern, no livestock in this area.</li> </ul>

**Question 1b:** As you look at the list of issues are there any **ADDITIONS** that you suggest?

- These questions do not sufficiently address the sustainability of agriculture and fruit growing – most of these ditches are adjacent to flowing through farms, not town. Questions also do not respect that most ditches occur on private land, not public.
- I think you have left out farmers as your most important asset. They help maintain waterways because they use them for drainage first and that water goes to the lakes and replenish the volume. Second, they use the waterways for irrigation and that water replenishes the soil (the earth) that grows the food you eat. In other words, include the farmers and saving them as part of your goals and objectives!

Study Goal

*To produce a Watershed Management Plan developed in consultation with appropriate government agencies, landowners, and interest groups that assists with the management of water, land/water interactions, terrestrial and aquatic resources to protect and improve the health of the ecosystem.*

**Question 2a:** Do you agree with the draft study goal (above)? Why or why not?

- Not if it will be detrimental to the agricultural community.
- Yes.
- Should include irrigation system.
- Drains should be removed from Study.
- No - The study goal does not address issues of sustainability of fruit growing in Niagara! The study goal does not respect that most of the watershed is in agricultural land – ditches are needed for drainage of fields and irrigation.
- Include the farmers and their health as an important part of the ecosystem. I will not agree unless you include conserving farmers and their health (and economic health) as part of your study goal.
- The municipal drains must not be included. They are man-made features used to drain land that would otherwise not be used for agriculture. Houses have been built in these areas also. The entire watershed has benefited. Sewage treatment plant overflows and spills should be stopped and then none of this would be necessary.

**Question 2b:** Some of the objectives that are being considered for the Watershed Study are listed below. Please indicate whether or not you agree with these draft objectives (1 – strongly agree, 5 – strongly disagree). Why?

<b>Study Objectives</b>	<b>Agreement (# of responses)</b>	<b>Comments on Why</b>
Demonstrate and promote awareness of the linkages between clean water, healthy lifestyle, economic viability of rural and urban land use	Agree (4) Disagree (1)	<ul style="list-style-type: none"> <li>• (Agree) not legislate.</li> <li>• (Agree) Urbanites need to know how important it is to support agriculture.</li> </ul>
Promote the use of surface and ground water having regard to human, agricultural, and ecological needs	Agree (4) Disagree (1)	<ul style="list-style-type: none"> <li>• (Agree) Most rural homes have wells.</li> </ul>
Promote environmental stewardship of aquatic and terrestrial habitats	Strongly agree (1) Agree (3) Disagree (2)	<ul style="list-style-type: none"> <li>• (Agree) Only in balance with sustainability of agriculture.</li> <li>• (Agree) To keep ditches and waterways clean.</li> </ul>
Promote environmental stewardship and a better understanding of the importance of ecological functions of the NOTL Watershed	Strongly agree (1) Agree (2) Disagree (2)	<ul style="list-style-type: none"> <li>• (Agree) See above note.</li> <li>• (Agree) Only in natural waterways. Not in municipal drains.</li> </ul>
<b>Water Quantity</b>		
Manage flooding and erosion risks to human life and property to within acceptable limits	Agree (3) Disagree (1)	<ul style="list-style-type: none"> <li>• (No response) Do not allow buildings in low lying area and creeks.</li> </ul>
Maintain, enhance or restore stream processes to support human uses, agricultural needs and natural habitats	Agree (3) Strongly disagree (1)	<ul style="list-style-type: none"> <li>• (Agree) For irrigation ditches.</li> <li>• (Agree) Clean water for irrigation so the fruit will not be contaminated.</li> </ul>
Manage stream flow to reduce erosion impacts on habitats and property	Agree (2) Disagree (1) No opinion (1)	



<b>Water Quality</b>		
Maintain or improve water quality conditions in watercourses in order to support ecological and human use functions	Agree (3) Disagree (1)	<ul style="list-style-type: none"> <li>(Agree) Clean water for irrigation so the fruit will not be contaminated.</li> </ul>
Reduce or eliminate objectionable deposits, nuisance algae growth, turbidity and odour to improve aesthetics of the area surface waters	Agree (3) Disagree (1)	<ul style="list-style-type: none"> <li>(Agree) Reduce stagnant water to eliminate odor and breeding ground for mosquitoes.</li> </ul>
<b>Aquatic Communities and Habitats</b>		
Protect, enhance or restore populations of native aquatic species and their habitats	Strongly agree (1) Agree (1) Strongly disagree (2)	<ul style="list-style-type: none"> <li>(Agree) Only in natural waterways.</li> <li>(Strongly disagree) Needs to be balanced with agriculture.</li> </ul>
<b>Terrestrial Communities</b>		
Protect, enhance or restore the stability, diversity and linkages between habitats that support terrestrial species and communities	Strongly agree (1) Strongly disagree (2)	<ul style="list-style-type: none"> <li>(Strongly disagree) See above note.</li> <li>(No response) Do not understand.</li> </ul>
<b>Social/Economic</b>		
Identify and promote the social and economic benefits of a healthy watershed system	Agree (4) Strongly disagree (2)	<ul style="list-style-type: none"> <li>(Agree) Keep garbage and pollutants out of our waterways.</li> </ul>

**(General comments regarding the above questions):**

- Some of these questions seem ambiguous and I fear how you may squeeze the answers.
- My answers to these questions would depend on the way you intend to reach these objectives. I love fish and all wildlife but the public need more than fish to eat in order to save their health and well being.
- I believe the watershed is pretty healthy right now.

**Question 2c:** As you look at the identified goals and objectives are there any CHANGES or ADDITIONS that you suggest?

- These are all loaded questions to get the answers you want.
- As noted – See Question 1b on page 3
- You must include the farmer as one of the most important life of this study. Saving the farmer must be the most important goal and objective of this study.
- I have farmed since 1971. The Bright drain runs through my farm. In all these years, I have never seen fish in the drain. The drain only has flow in spring or after a heavy rain. The purpose of the drain is to take water away from the land. Fortunately the provincial government has allowed us to put water in this and other drains so we can irrigate, because if we could not irrigate it would create a financial hardship. We in Niagara are now legislated into Greenbelt, which restricts us from development. We cannot survive if drains/irrigation systems cannot be maintained. Without maintenance, there would be no drainage and irrigation and therefore no grapes and fruit and no tourism.

**Question 3:** Do you have any **LOCAL INFORMATION OR DATA** that you believe would be useful for the NOTL Watershed Study (it may help if you refer to the categories outlined on page five, six and seven)?

- As a grape grower in NOTL, I will participate in any and all workshops that will identify and separate water sources as natural and manmade. Please note that the man made drainage

ditches fall under the mandate and directives of the Drainage Act which was proclaimed in force April 1<sup>st</sup> 1976.

- Yes. The Conservation Authority does not consult or consider farmers enough. I would like to see more consultation between farmers and the Conservation Authority before they consider any action along the watershed. According to data, you don't consult Farmers enough. Please do so in the future.

**Additional Comments:**

- Draining the land is important but saving the farmer and their land along the watershed is important and I pray the Conservation Authority is interested in saving the human life and livelihood of the farmer and will include them as a priority of this study. I will be keeping a copy of this questionnaire and will be interested to see if you think farmers are part of the life of the watershed.



# Public Open House and Workshop

## NIAGARA ON THE LAKE CREEKS WATERSHED STUDY

Since September 2005, The Niagara Peninsula Conservation Authority (NPCA), the town of Niagara-On-The-Lake (NOTL), Niagara Region, Aquafor Beech Ltd, North South Environmental and Lura Consulting have been working together on developing a plan to protect and improve the NOTL Creeks Watershed ecosystem.

At the First Public Open House held on April 20, 2006, attendees were introduced to the study and updated on existing conditions. Attendees provided input on Goals and Objectives, and identified and discussed the issues affecting the watershed.

### ***Invitation***

This meeting will discuss a broad range of management actions for improving the health of the watershed ecosystem. You are invited to join the NPCA and others who share a common interest in protecting water at the second workshop for the NOTL Creeks Watershed Plan:

**WHEN: Tuesday, June 20<sup>th</sup>, 2006**  
6:30 p.m. - 9:00 p.m.

**WHERE: Niagara-on-the-Lake Community Centre**  
29 Platoff Street  
Niagara-on-the-Lake, Ontario



For more information, please contact Dave Maunder,  
Aquafor Beech at 1-866-306-3885 ext. 290 or  
[maunder.d@aquaforbeech.com](mailto:maunder.d@aquaforbeech.com),  
or Suzanne McInnes, NPCA at 905-788-3135 ext. 235 or  
[smcinnnes@conservation-niagara.on.ca](mailto:smcinnnes@conservation-niagara.on.ca).

# Niagara-on-the-Lake Watershed Plan

## Public Workshop #2

June 20, 2006

*Meeting Record*



**June 2006, 6:30 p.m. - 9:00 p.m.  
Niagara-on-the-Lake Community Centre  
Niagara-on-the-Lake, Ontario**

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*This meeting record was prepared by Lura Consulting. It summarizes the key discussion points and outcomes from Public Workshop #2 held on June 20, 2006 as part of the process to develop the Niagara-on-the-Lake Watershed Plan. The contents of this record are subject to review by meeting participants. Please forward any comments to Liz Nield of Lura Consulting at (905) 527-0754, by fax at (905) 528-4179, or by email at [lnield@lura.ca](mailto:lnield@lura.ca) by September 20, 2006.*

### **Meeting Purpose**

This workshop – the second in a series of public consultation workshops – was held to receive feedback on the “long list” of management actions that could be undertaken as part of the Niagara-on-the-Lake (NOTL) Watershed Plan; and the proposed evaluation criteria that will be used to create a “short list” of management actions for further consideration.

Specifically, the objectives of the workshop were to:

1. Communicate the “long list” of management actions.
2. Obtain feedback on the “long list” of actions, including:
  - Priority management actions;
  - Management actions that should not be considered; and
  - Any actions missing from the list.
3. Introduce the proposed criteria for choosing between management actions.
4. Obtain feedback on the criteria.

### **Open House**

Participants were invited to review a series of displays that focused on background information; the process for the NOTL Watershed Plan project; and the “long list” of management actions that are being considered.

### **Participants**

A total of 44 participants – mostly from the NOTL agricultural community – participated in the workshop. A complete list of participants is included in Appendix A.

### **Welcome, Agenda Review and Introductions**

**Suzanne McInnes of the Niagara Peninsula Conservation Authority (NPCA)** welcomed everyone to the meeting and introduced **David Dilks, Lura Consulting** as the workshop facilitator. David noted that Lura’s role in the project is to provide third-party facilitation and reporting for the public workshops. He reviewed the proposed meeting agenda and format. A copy of the agenda is included in Appendix B.

Following the agenda review, David noted that John Kirkby (on behalf of the NOTL agricultural community) had requested to make a brief statement following the

presentation. David indicated that this would be accommodated and then facilitated a round of introductions.

### **Presentation**

**David Maunder from Aquafor Beech Limited** provided an update on the study, and presented the “long list” of management actions that will be considered in the planning process. The “long list” of management actions is presented in Appendix C. David also reviewed potential evaluation criteria that could be used to narrow the “long list” to a “short list” of actions for more detailed consideration.

### **Questions of Clarification**

Workshop participants were invited to ask questions about the presentation. A summary of the questions and comments is presented below. Responses, where provided, are included in italics.

Q: What is the budget for the Niagara-on-the-Lake Watershed Study?

A: *The overall budget has not been determined. However, the NPCA has the necessary funding through the Niagara Water Quality Protection Strategy and Niagara Region to carry out the study. Management actions will be implemented based on their prioritization during the study.*

Q2: Which agencies are currently involved in the NOTL Watershed Study? There is concern that duplication of efforts could occur if the appropriate agencies are not informed about or involved in the study.

A: *Under the Niagara Water Quality Protection Strategy the NPCA has the authority to undertake studies and provide stewardship for programs. The NPCA wants to bring together all of the necessary agencies into the study and avoid overlap of efforts.*

Q3: Concern about the stormwater management approach that is included in the Walker development, for example there is little irrigation – why did the NPCA let this happen?

A: *One of the suggestions that will be made in this study is better stormwater management overall. We will ask someone who is familiar with that specific project to speak with you directly.*

### **Roundtable Discussion**

After the presentation question and answer period, David Dilks introduced John Kirkby to make a statement on behalf of the NOTL agricultural community.

### **Submission from Agricultural Landowners**

John Kirkby presented a written submission that was endorsed by 42 signatories from a meeting of NOTL Agricultural Landowners on June 15, 2006. The following provides a concise summary of the their concerns – the full submission is presented in Appendix E.

- The Agricultural Landowners reviewed 34 management actions (34 management actions are provided in the meeting’s workbook);
- Concern that many of the 34 management actions are currently being carried out by other agencies;

- Concern that other individuals responding to the 34 management actions are not aware of other agency initiatives and potential overlap;
- Suggest that the NOTL Watershed study is taking place during an incredibly busy time of year for growers;
- It is important to remember that most of the land being studied in this study is on agricultural land;
- The irrigation system in NOTL has been operating informally for several years, concern that there is not an action plan to identify base flows within the watershed, and that the primary focus is on irrigation purposes for fish habitat;
- The existing irrigation system in NOTL (managed by Irrigation/Drainage Supervisor) has 139 growers who have contributed funds to the system; the system operates from May 15 – September 15 annually. Concern that the study team has not considered this system;
- Concern regarding the overall financial responsibility for the study, and that there is no apparent analysis of costs associated with the 34 management actions; and
- Suggest that the NPCA distribute existing booklets/information on land and water management to landowners adjacent to the study area.

### **Roundtable Discussion**

After John Kirkby's statement, David Dilks introduced the roundtable discussion portion of the workshop. During small table discussions, participants used the workshop workbook to:

- Identify priority management action for the NOTL watershed study;
- Provide feedback on the study's evaluation criteria; and
- Offer any additional comments regarding the study.

This section provides a summary of highlights of the roundtable discussion as well as written feedback received from the agricultural community's written submission and workbooks submitted following the meeting.

A complete listing of all the feedback provided through the table discussions and the individual workbooks is presented in Appendix D.

## **Question 1: Management Actions**

### **1A. Priority Management Actions**

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The two most commonly prioritized action items included:

**Management Action #24:** Implement the recommendations of the Region's Salt Vulnerability study and extend it to cover local roads; and

**Management Action #10a:** Minimize flooding of agricultural lands by: upgrading culverts, removing weirs.

#### **Other prioritized management actions included:**

- Management Action #2a: The irrigation and drainage management system;
- Management Action #2c: The operation of Virgil Reservoirs;
- Management Action #10: Minimize flooding of agricultural lands;



- Management Action #12: Implement state of the art stormwater management facilities – source, conveyance, end of pipe for existing developments, where warranted (within villages);
- Management Action #21: Implement water quality monitoring program to assess impacts of drains on watercourses;
- Management Action #22: Work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff and contaminated groundwater; and,
- Management Action #23: Work with landowners to develop a 6m buffer zone (3 m on either side) adjacent to drains (and manage uses within the buffer); implement a demonstration project.
- Management Action #32: Identify opportunities to create habitat linkages along the Escarpment

In one table's workbook, it was suggested that the following prioritized management actions are seen as potential duplication with efforts by other agencies:

1. Review current incentive programs that target farmers and update to address current issues and problems
2. Implement a program to educate residents about the region's agriculture and its special needs, including:
  - 2a The irrigation and drainage management system
  - 2b The rationale for various agricultural practices used to produce grapes and tender fruits
  - 2c The operation of Virgil Reservoirs
3. Provide educational/awareness material on landowner rights, trespass issues
4. Develop guidelines summarizing legislation affecting landowners and explain how each piece of legislation affects activities on their property
5. Provide a "one window" contact/source to answer questions about legislation
6. Set up a committee of agencies, interest groups, landowners to address legislative gridlock and conflicts
7. Develop workshops/training sessions to encourage/educate landowners on good stewardship of aquatic and terrestrial habitats
8. Develop brochure/educational materials on shoreline erosion, approvals, preferred stabilization techniques, protection of fish and aquatic habitats
9. Educate landowners regarding the benefits of riparian buffers

#### **1B. Management Actions that should not be considered**

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Two tables and the landowners submission reported that **Management Action #29:** Implement a community-based restoration program for upper 4 Mile Creek, focused on creating a vegetated buffer zone and stabilizing the stream using natural channel design principles was unpractical.

**Other Management Actions identified as being less desirable were:**

- 10b Removing excess fill adjacent to drains/watercourses.
- 10c Increasing capacity of channels/floodplain.
- 11. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for new developments.
- 12. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for existing developments, where warranted (within villages).
- 13. Implement a strategic drain maintenance and management program to reduce costs and improve stability (erosion and sedimentation of drains).
- 14. Review the irrigation management system to identify any existing conflicts in water use among landowners – encourage off-line storage and other water conservation strategies; identify opportunities to maintain baseflow; identify potential downstream impacts on watercourses.
- 15. Develop an erosion remediation plan using natural channel design principles for lower watercourses to address erosion and aquatic habitat impacts.
- 16. Review current levels of private water well use versus municipal supply.
- 17. Identify active PTTW (groundwater) to ensure that impacts on baseflow are minimized.
- 18. Review Walker Landfill proposal for impacts on baseflow to 6 Mile and potentially 8 Mile Creek to ensure baseflow reductions are minimized.
- 19. Review existing aggregate operations to assess potential impacts on groundwater levels and stream base flows.
- 20. Review operation of Virgil Reservoirs and recommend measures to reduce re-suspension of sediment and encourage littoral zone aquatic plant growth.
- 21. Implement water quality monitoring program to assess impacts of drains on watercourses.
- 22. Work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff and contaminated groundwater.
- 23. Work with landowners to develop a 6m buffer zone (3 m on either side) adjacent to drains (and manage uses within the buffer); implement a demonstration project.
- 24. Implement the recommendations of the Region's Salt Vulnerability study and extend it to cover local roads.
- 25. Undertake a water and sediment quality monitoring program of Virgil Reservoirs to identify nutrient sources (insitu versus upstream)
- 26. Work with landowners to manage land use activities adjacent to watercourses within a 10 m buffer zone (5 m on either side); implement a demonstration project.
- 27. Review water withdrawals from watercourses with the Irrigation Committee and landowners to maintain instream flows.
- 30. Implement a community-based fish habitat improvement plan for Virgil Reservoirs and lower 4 Mile Creek, in cooperation with the Irrigation Committee.
- 31. Work with landowners to protect remaining forest and wetland habitats.
- 33. Work with landowners to develop strategies to manage conflicts between wildlife and crops.
- 34. Where development opportunities exist, develop reach-based concept plans for each shoreline management reach to address aggradation/recession and aquatic habitat issues.

- In addition, one working group indicated that farmers do not need another organization to determine management nutrient and pesticide use. The Ontario Ministry of Agriculture and Food (OMFRA) currently does this; and that there is also a Nutrient Management Plan (which would determine nutrient and pesticide use).

**1C. Additional Management Actions to be considered**

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Participants suggested that the following Management Actions should be considered (in addition to those on the “long list”):

- It is important to consider the Four-mile creek headwater. Suggest that the project team consider actions to control water run off from eagle valley.
- Stormwater management at the Walker development in old gravel pit should be evaluated during as part of this study.

**Question 2: Evaluation Criteria**

Participants reviewed the list of 8 evaluation criteria being considered to develop a “short list” of management actions for further consideration.

High Importance	Medium Importance	Low Importance
<ul style="list-style-type: none"> <li>• Land requirements</li> <li>• Cost</li> <li>• Stakeholder/landowner acceptance</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental benefits and impacts</li> <li>• Implementation considerations, including phasing</li> <li>• Recreational and cultural impact</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to meet study objectives and targets</li> <li>• Agency Acceptance</li> </ul>

Additional comments on criteria included:

- Some participants indicated that the evaluation criteria are too vague

**Question 3: Additional Comments**

A number of questions, concerns and suggestions were raised at the meeting:

- Some participants requested that meetings are not held during farmer’s busy time of year – the next meeting should not be held until after fall harvest.
- Overall, the study should look to improve access to all areas for irrigation purposes.
- Some participants expressed concern regarding duplication of studies that are being conducted by different Agencies.
- Concern about overall cost of recommendations and who is going to pay other than landowners, general public or the Province.
- Request for explanation or information regarding what incentive programs are currently available to landowners.

- Tailor the timing of the process to allow for heavier participation on behalf of the stakeholders. Horticultural industry workload May – October restricts essential participation required to provide proper analysis.
- Sustainable agriculture should be a primary driver in any plan. Balancing sustainable agriculture with the natural environment is a doable long-term goal that is and must be a priority of any NPCA study.

### **Study Goals**

The goals for the NOTL Watershed Plan, as revised based on feedback from Public Workshop #1, are:

*To protect the natural environment of the Niagara-on-the-Lake watershed ecosystem, within the context of a unique, fragile agricultural resource, for the benefit of humans and other terrestrial and aquatic life.*

*To promote environmentally sound water management practices that recognizes the interdependencies between the watercourses and the irrigation/drainage system.*

### **A number of new suggestions were provided for the Study Goals:**

- To promote the special and unique agricultural resource of Niagara-on-the-Lake and to promote its drainage and irrigation system within the context of the NOTL watershed.
- To promote economically feasible water management practices that recognizes primarily the irrigation/drainage in relation to the watercourse.
- To promote the natural environments of the Niagara-on-the-Lake watershed ecosystem, within the context of a unique, fragile agricultural resource, for the benefit of humans and other terrestrial and aquatic life.
- To promote environmentally sound and economically feasible water management practices that recognize the interdependencies between the watercourses and the irrigation drainage system and to do so in co-operation with the Irrigation Committee.

### **Closing Remarks**

After the roundtable discussions, David encouraged the meeting participants to complete their workbooks and return them by Tuesday, July 4<sup>th</sup>, 2006. He thanked those in attendance for their time and input.

**Appendix A: List of Participants (43 participants)**

**Appendix B: Workshop Agenda**

**Niagara-on-the-Lake (NOTL) Watershed Plan  
Public Workshop #2**  
June 20, 2006  
6:30 p.m. - 9:00 p.m.  
Niagara-on-the-Lake Community Centre  
29 Platoff Street, Niagara-on-the-Lake, Ontario

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**AGENDA**

**Meeting Purpose:**

***To receive feedback on...***

- *The “long list” of management actions that could be undertaken as part of the Niagara-on-the-Lake Watershed Plan; and*
- *Proposed evaluation criteria that will be used to create a “short list” of management actions for further consideration.*

**6:30 pm      Open House**

**7:00 pm      Welcome to Participants**  
Niagara Peninsula Conservation Authority (NPCA)

**7:05 pm      Introductions and Agenda Review**  
David Dilks, Lura Consulting

**7:10 pm      Presentation**  
David Maunder, Aquafor Beech

**7:40 pm      Discussion**

**8:55 pm      Closing Remarks**  
Niagara Peninsula Conservation Authority (NPCA)

**9:00 pm      Adjourn**

**Appendix C: Management Actions**

COMMUNICATION & EDUCATION	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced Nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
1. Review current incentive programs that target farmers and update to address current issues and problems														X	X
2. Implement a program to educate residents about the region's agriculture and its special needs, including:														X	
2a The irrigation and drainage management system															X
2b The rationale for various agricultural practices used to produce grapes and tender fruits															X
2c The operation of Virgil Reservoirs														X	X
3. Provide educational/awareness material on landowner rights, trespass issues														X	X
4. Develop guidelines summarizing legislation affecting landowners and explain how each piece of legislation affects activities on their property															X
5. Provide a "one window" contact/source to answer questions about legislation															X
6. Set up a committee of agencies, interest groups, landowners to address legislative gridlock and conflicts															X
7. Develop workshops/training sessions to encourage/educate landowners on good stewardship of aquatic and terrestrial habitats														X	
8. Develop brochure/educational materials on shoreline erosion, approvals, preferred stabilization techniques, protection of fish and aquatic habitats														X	X
9. Educate landowners regarding the benefits of riparian buffers														X	

**Niagara-on-the-Lake (NOTL) Watershed Plan: Public Workshop #2**

WATER QUANTITY	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
10. Minimize flooding of agricultural lands by:															
10a Upgrading culverts, removing weirs	X														
10b Removing excess fill adjacent to drains/watercourses	X														
10c Increasing capacity of channels/floodplain	X														
11. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for new developments	X	X			X	X	X	X							
<del>30-12.</del> Implement state of the art stormwater management facilities – source, conveyance, end of pipe for existing developments, where warranted (within villages)	X	X			X	X	X	X							
<del>34-13.</del> Implement a strategic drain maintenance and management program to reduce costs and improve stability (erosion and sedimentation of drains). Program could include:															
13a Designing drain cross-sections to be more self sustaining		X	X				X			X		X			
13b Introducing grade controls (e.g. 6 Mile Creek) to reduce erosion risk		X	X				X					X			
13c Replacing rip rapped side slopes with vegetated terraces (low growing vegetation)		X	X				X			X	X	X			
13d Replacing weirs with off-line irrigation ponds, where possible		X		X	X					X		X			
13e Removing any instream structures outside of the irrigation season – consider water conservation measures to reduce dependency on instream dams (see Water Quantity)				X								X			



**Niagara-on-the-Lake (NOTL) Watershed Plan: Public Workshop #2**

WATER QUANTITY (continued)	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
13f In areas where fish have access to drains, minimize drain maintenance activities during Spring: April 1 – June 30												X			
<u>32-14.</u> Review the irrigation management system to identify any existing conflicts in water use among landowners – encourage off-line storage and other water conservation strategies; identify opportunities to maintain baseflow; identify potential downstream impacts on watercourses		X		X	X										
<u>33-15.</u> Develop an erosion remediation plan using natural channel design principles for lower watercourses to address erosion and aquatic habitat impacts		X					X		X	X	X				
<u>34-16.</u> Review current levels of private water well use versus municipal supply						X									
<u>35-17.</u> Identify active PTTW (groundwater) to ensure that impacts on baseflow are minimized					X	X									
<u>36-18.</u> Review Walker Landfill proposal for impacts on baseflow to 6 Mile and potentially 8 Mile Creek to ensure baseflow reductions are minimized					X	X									
<u>37-19.</u> Review existing aggregate operations to assess potential impacts on groundwater levels and stream base flows					X	X									
34. Where development opportunities exist, develop reach-based concept plans for each shoreline management reach to address aggradation/recession and aquatic habitat issues		X	X				X						X	X	

WATER QUALITY	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced Nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
<u>38-20.</u> Review operation of Virgil Reservoirs and recommend measures to reduce re-suspension of sediment and encourage littoral zone aquatic plant growth		X					X	X							
<u>39-21.</u> Implement water quality monitoring program to assess impacts of drains on watercourses								X				X			
<u>40-22.</u> Work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff and contaminated groundwater								X	X			X			
<u>41-23.</u> Work with landowners to develop a 6m buffer zone (3 m on either side) adjacent to drains (and manage uses within the buffer); implement a demonstration project		X	X				X	X		X					
<u>42-24.</u> Implement the recommendations of the Region's Salt Vulnerability study and extend it to cover local roads								X	X			X			
<u>43-25.</u> Undertake a water and sediment quality monitoring program of Virgil Reservoirs to identify nutrient sources (insitu versus upstream)		X					X	X							

AQUATIC COMMUNITIES AND HABITATS	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced Nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
26. Work with landowners to manage land use activities adjacent to watercourses within a 10 m buffer zone (5 m on either side); implement a demonstration project		X	X				X	X		X	X	X			
27. Review water withdrawals from watercourses with the Irrigation Committee and landowners to maintain instream flows				X	X							X			
29. Implement a community-based restoration program for upper 4 Mile Creek, focused on creating a vegetated buffer zone and stabilizing the stream using natural channel design principles							X	X		X	X	X			
<del>14-30.</del> Implement a community-based fish habitat improvement plan for Virgil Reservoirs and lower 4 Mile Creek, in cooperation with the Irrigation Committee. Plan could include:															
30a Review of water level management (maintain constant/rising water levels through to June				X								X			
30b Riparian and littoral zone plantings		X								X	X				

TERRESTRIAL COMMUNITIES	WATERSHED BENEFITS														
	Reduced Flooding	Reduced Erosion and Sedimentation	Reduced Soil Loss	More efficient use of irrigation water	Improved Baseflow	Groundwater quantity	Reduced Sediment loads	Reduced Nutrient, Chloride and Bacteria Loads	Reduced Groundwater Contamination	Improve natural channel morphology	Improve riparian vegetation	Protect/Enhance instream habitats	Protect/Enhance forest/wetland habitats	Protect Habitats for special status species	Improved environmental Stewardship
31. Work with landowners to protect remaining forest and wetland habitats												X	X		
32. Identify opportunities to create habitat linkages along the Escarpment												X	X		
33. Work with landowners to develop strategies to manage conflicts between wildlife and crops												X	X		

**Appendix D: Summary of Workbooks**

Six workbooks were submitted after the workshop, the workbooks submitted were a combination of table and individual workbooks. The feedback received from the workbooks and the agricultural landowners submission is presented below.

**Question 1: Management Actions**

On pages 5-10 is a “long list” of management actions that could be undertaken as part of the Niagara-on-the Lake Watershed Plan to work towards achieving the plan goals and objectives. The actions are organized under each of the 5 major categories of objectives. The potential “watershed benefits” of each action are also shown in the table.

***Looking at the “long list” of potential management actions...***

- a. Please identify the 3-5 actions you think are the highest priorities. Please indicate why you think these are priorities. Also, for actions that are not in the communication and education category, please indicate whether you think these actions should apply to water courses only; municipal drains only; or both.

<b>PRIORITY MANAGEMENT ACTIONS</b>		
<b>Action #</b>	<b>Why?</b>	<b>Apply to watercourses; municipal drains; or both?</b>
1. Review current incentive programs that target farmers and update to address current issues and problems 2. Implement a program to educate residents about the region’s agriculture and its special needs, including: 2a The irrigation and drainage management system 2b The rationale for various agricultural practices used to produce grapes and tender fruits 2c The operation of Virgil Reservoirs 3. Provide educational/awareness material on landowner rights, trespass issues 4. Develop guidelines summarizing legislation affecting landowners and explain how each piece of	<ul style="list-style-type: none"> <li>▪ Seen as duplication. This work is done by other Agencies/Ministries (make work project for NPCA i.e. Nutrient Management).</li> </ul>	

<b>PRIORITY MANAGEMENT ACTIONS</b>		
<b>Action #</b>	<b>Why?</b>	<b>Apply to watercourses; municipal drains; or both?</b>
legislation affects activities on their property 5. Provide a “one window” contact/source to answer questions about legislation 6. Set up a committee of agencies, interest groups, landowners to address legislative gridlock and conflicts 7. Develop workshops/training sessions to encourage/educate landowners on good stewardship of aquatic and terrestrial habitats 8. Develop brochure/educational materials on shoreline erosion, approvals, preferred stabilization techniques, protection of fish and aquatic habitats 9. Educate landowners regarding the benefits of riparian buffers		
2a The irrigation and drainage management system	<ul style="list-style-type: none"> <li>▪ Improve natural channel morphology</li> </ul>	Both
2c The operation of Virgil Reservoirs	<ul style="list-style-type: none"> <li>▪ Fish ladder</li> </ul>	
10. Minimize flooding of agricultural lands	<ul style="list-style-type: none"> <li>▪ Town of NOTL responsibility – has 5-year plan in place.</li> </ul>	
10a (2). Minimize flooding of agricultural lands by: upgrading culverts, removing weirs.	<ul style="list-style-type: none"> <li>▪ Do not remove weirs</li> <li>▪ Upgrade culverts only</li> <li>▪ Upgrade culverts to reduce flooding in adjacent lands</li> </ul>	Both
12. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for existing developments, where warranted (within villages)	<ul style="list-style-type: none"> <li>▪ Improves ground water quality</li> </ul>	Both
21. Implement water quality	<ul style="list-style-type: none"> <li>▪ Monitoring followed by</li> </ul>	

<b>PRIORITY MANAGEMENT ACTIONS</b>		
<b>Action #</b>	<b>Why?</b>	<b>Apply to watercourses; municipal drains; or both?</b>
monitoring program to assess impacts of drains on watercourses	education can lead to improvements	
22. Work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff and contaminated groundwater	<ul style="list-style-type: none"> <li>▪ To improve water quality</li> </ul>	Both
23. Work with landowners to develop a 6m buffer zone (3 m on either side) adjacent to drains (and manage uses within the buffer); implement a demonstration project	<ul style="list-style-type: none"> <li>▪ Stabilize stream banks help to removes sediment cool. The stream flows.</li> </ul>	
24 (3). Implement the recommendations of the Region's Salt Vulnerability study and extend it to cover local roads	<ul style="list-style-type: none"> <li>▪ Salt vulnerability study, only if use of salt is less than NOTL (15%)</li> <li>▪ NOTL salt application adheres to the current plan to a much higher degree than Region.</li> <li>▪ Salt kills greenbelt lands</li> </ul>	Both

b. What actions (if any) should not be considered? Please say why these actions should not be considered.

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
1. Review current incentive programs that target farmers and update to address current issues and problems.	If there are incentive programs through the Conservation Authority for work done adjacent to watercourses, then that information should be sent to landowners/farmers who own land adjacent to watercourses.
2. Implement a program to educate residents about the region's agriculture and its special needs.	We do not feel there is a need for the cost of a program to educate residents about the Region's agriculture and its special needs, the irrigation and drainage management system, or the operation of the Virgil Reservoirs.
3. Provide educational/awareness material on landowner rights, trespass issues.	This information is provided through OMAFRA and OFA.

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
4. Develop guidelines summarizing legislation affecting landowners and explain how each piece of legislation affects activities on their property.	The development of guidelines is not necessary.
5. Provide a “one window” contact/source to answer questions about legislation.	We do not feel there is a need for a one-window contact source to answer questions about legislation.
6. Set up a committee of agencies, interest groups, landowners to address legislative gridlock and conflicts.	We do not feel there is a need for another committee.
7. Develop workshops/training sessions to encourage/educate landowners on good stewardship of aquatic and terrestrial habitats.	The Conservation Authority provides excellent resource material. We support material provided but not workshops to encourage educating landowners on good stewardship of aquatic and terrestrial habitats. The material should be compiled in a very small booklet and mailed to property owners adjacent to watercourses. It is important to remember that areas of increased natural vegetation provide increased havens for wildlife, insects and pests that damage crops.
8. Develop brochure/educational materials on shoreline erosion, approvals, preferred stabilization techniques, protection of fish and aquatic habitats.	We believe the Conservation Authority already provides this information. It should be sent to landowners who border watercourses.
9. Educate landowners regarding the benefits of riparian buffers.	We believe this material is already available through the Conservation Authority and the <b>Soil</b> and Crops Association. Same as above for distribution.
10b Removing excess fill adjacent to drains/watercourses.	The Town already has a policy on fill adjacent to drains so there is no need to address this issue unless the cost can be attributed to others.
10c Increasing capacity of channels/floodplain.	We do not support the need to increase the capacity of channels. We do not want to lose any more agricultural land. If the width of channels is increased there may be the need for another engineering report and we do not want to incur that cost. There could also be an adverse affect on the road allowances. If any individual landowner thinks his channel should be widened, then he/she can approach the Drainage Supervisor.



<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
11. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for new developments.	The Town has approved many new developments with storm water management facilities with input from the Region and the NPCA. If there are further suggestions from the NPCA then they should be conveyed to the Town for consideration if the land is available and they are economically feasible. We are concerned that there is no cost analysis associated with this action.
12. Implement state of the art stormwater management facilities – source, conveyance, end of pipe for existing developments, where warranted (within villages).	See comment for #11.
13. Implement a strategic drain maintenance and management program to reduce costs and improve stability (erosion and sedimentation of drains). Program could include:	<p>Currently, the Town maintains a drain maintenance and management program according to the Drainage Act. Engineering reports have been done for all of the individual drains that were constructed, outlining the location of drains. Any changes would require a new engineering report. Landowners cannot support a program that requires new engineering reports and that additional cost. They cannot support more agricultural land taken out of production adjacent to drainage ditches. In most cases these areas have already had additional agricultural land removed to increase the size of the present drains.</p> <p>There is no support for additional money for new drain cross-sections designs. The Drainage Act allows for the use of rip-rapped side slopes to control erosion. Landowners cannot support a management program that replaces weirs with off-line irrigation ponds. The base flow in most if not all the drainage ditches and creeks is extremely low or non existent and the use of weirs has been allowed for years and is needed to contain enough water depth to provide for irrigation pumps and to fill off-line ponds.</p> <p>Dams are constructed with removable wood boards. Drain maintenance is minimized between April and June. Dams are installed just before and removed at the end of the irrigation season (May 15 to Sept15). Agricultural land parcels are smaller in NOTL than anywhere else in the Province and many farms are not large enough to be able to take land out of production for a pond or meandering drains. Dams are needed to fill existing ponds anyway. Off-line ponds are encouraged for larger farm parcels.</p>

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
	Drains are brushed on an average every 7 years. These drains were constructed years ago according to the Drainage Act and the Engineer Report to drain agricultural land. There is no support for redesigning these drains because of the further loss of agricultural land and the huge cost.
14. Review the irrigation management system to identify any existing conflicts in water use among landowners – encourage off-line storage and other water conservation strategies; identify opportunities to maintain baseflow; identify potential downstream impacts on watercourses.	There is no support for a review of the irrigation management system. The Town of NOTL has hired a Drainage/Irrigation Supervisor to oversee the management of the system. Water usage is being requested this year and anyone not getting a fair allocation of water is quickly accommodated. We cannot stress enough the lack of base flow in the ditches during the summer months when irrigation is needed. The Irrigation Committee does address any problems associated with the efficient usage of irrigation water.
15. Develop an erosion remediation plan using natural channel design principles for lower watercourses to address erosion and aquatic habitat impacts.	<p>There has been no identification of the erosion sites so it is difficult to comment. The Town through the Public Works Dept Drainage Supervisor manages the erosion problems according to the Drainage Act in a cost effective manner and we support that practice. Farmers do not support any additional agricultural land for reestablishing natural channel morphology.</p> <p>The Conservation Authority can provide any information to the Drainage Supervisor and a landowner who wants to avail himself/herself of this information to reconstruct the design of the channel on his/her property, including cost, can do so after consultation with the Irrigation Supervisor. The cost of a new engineer report would also be the responsibility of the property owner.</p>
16. Review current levels of private water well use versus municipal supply.	Landowners who have wells are responsible for testing their own water. This is done free of charge by the Region. We do not see the need or the cost to undertake a study of the quality and quantity of well water use.
17. Identify active PTTW (groundwater) to ensure that impacts on baseflow	The MOE is responsible for permits to take water and irrigation users are required to supply the amount of their water use. We see no season to

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
are minimized.	duplicate this process.
18. Review Walker Landfill proposal for impacts on baseflow to 6 Mile and potentially 8 Mile Creek to ensure baseflow reductions are minimized.	It is interesting that you note the current base flows in 6 Mile and 8 Mile Creeks are currently very low. This is something we have known for years. That is the reason the irrigation system was expanded to include more water introduced into those areas. The EA process of Walker Landfill site allows for reviews by others. We believe the opportunity to review and comment is already present and does not need to be duplicated. If the EA for the Walker Landfill has identified potential reduction in ground water supply then there should be remediation plans to overcome this problem and these plans should be requested by the commenting or interested agencies and municipalities.
19. Review existing aggregate operations to assess potential impacts on groundwater levels and stream base flows.	See response to #18.
20. Review operation of Virgil Reservoirs and recommend measures to reduce re-suspension of sediment and encourage littoral zone aquatic plant growth.	The Virgil Reservoirs were built for flood control and irrigation. Farmers pay for some of the costs at the Reservoir. The Drainage Supervisor looks after the levels of water during the irrigation season. We do not support any other changes and we do not support the use of littoral zone aquatic plant growth because of damage to irrigation pumps.
21. Implement water quality monitoring program to assess impacts of drains on watercourses.	We believe the decision to monitor water quality in drains and watercourses be left to the Town, in co-operation with the Irrigation Committee.
22. Work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff and contaminated groundwater.	Ontario Ministry of Agriculture and Food (OMAFRA) already recommends to us.  Farmers are good stewards of the land. Many hire a pesticide specialist to advise on timing of the use of pesticides, to reduce their usage. This includes the cost of an individual who covers each farm parcel on a weekly basis. Farmers apply nutrients and pesticides according to regulations (rates per acre) based on soil samples. There are OFA Nutrient Management Plans that already address this issue. We see no reason to duplicate this work.
23. Work with landowners to	Most farmers adjacent to drains already leave a 10

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
develop a 6m buffer zone (3 m on either side) adjacent to drains (and manage uses within the buffer); implement a demonstration project.	m headland for drain maintenance purposes and for turn around of equipment. There is no need for this extra work.
24. Implement the recommendations of the Region's Salt Vulnerability study and extend it to cover local roads.	The Town of NOTL currently uses less salt on their roads than the Region does. Farmers have suffered damage to trees, vines and crops from salt spread on Regional roads. Farmers support the implementation of extending the recommendations of Niagara Regions Salt Vulnerability Study if the recommendations will reduce the amount of salt presently used on local roads.
25. Undertake a water and sediment quality monitoring program of Virgil Reservoirs to identify nutrient sources (insitu versus upstream).	We believe the decision to undertake a water and sediment quality monitoring program of Virgil Reservoirs be left to the Town, in cooperation with the Irrigation Committee.
26. Work with landowners to manage land use activities adjacent to watercourses within a 10 m buffer zone (5 m on either side); implement a demonstration project.	Farmers already leave sufficient headland buffers adjacent to watercourses for maintenance work and for equipment movement. We see no reason to duplicate this action.
27. Review water withdrawals from watercourses with the Irrigation Committee and landowners to maintain instream flows.	Water has been introduced into the watercourses for over seventeen years because the base flow is so low or non-existent. Farmers/landowners have committed substantial investments towards the expansion of this irrigation system. This year there is a requirement for farmers to submit their water usage. The Town already knows the number of users on the system because they are charged annually for capital and operational costs. There is no need for this additional review.
29. Implement a community-based restoration program for upper 4 Mile Creek, focused on creating a vegetated buffer zone and stabilizing the stream using natural channel design principles.	Implementation unpractical. Drainage ditches have been created for that purpose, with additional irrigation added. These were not created for fish habitats.  Head water management. Improve water quality canning factory – process water disposed of in creek must stop. Kills creek as far downstream as line nine every summer.

<b>MANAGEMENT ACTIONS THAT SHOULD NOT BE CONSIDERED</b>	
<b>Action #</b>	<b>Why?</b>
	There is already a vegetated buffer along most of Four Mile Creek in St. David's. Any restoration plan should only be undertaken after consultation and agreement with property owners.
30. Implement a community-based fish habitat improvement plan for Virgil Reservoirs and lower 4 Mile Creek, in cooperation with the Irrigation Committee.	<p>All of four mile creek.</p> <p>Farmers do not need another organization to determine management nutrient and pesticide use – OMAFRA does this – also there is a Nutrient Management Plan.</p> <p>The Reservoir was installed for irrigation and flood control and the irrigation system is operated from May 15 to Sept 15. Farmers do not support any changes to the operation of the Reservoir and do not support any aquatic plants that would hinder operation of irrigation pumps.</p>
31. Work with landowners to protect remaining forest and wetland habitats.	<p>Most of the forested areas are on private property and are maintained at the owners expense.</p> <p>According to the Regional Tree By-law farmers can only remove trees for agriculture production. To prevent complete removal of forested areas, perhaps there should be opportunities for negotiation with landowners who own these areas.</p>
32. Work with landowners to develop strategies to manage conflicts between wildlife and crops.	MNR and OFA currently work with landowners on this issue.
34. Where development opportunities exist, develop reach-based concept plans for each shoreline management reach to address aggradation/recession and aquatic habitat issues.	Reach-based concept plans should only be done if Federal and Provincial Governments share the cost of the plans and the work.

**c. Please list any additional actions (not currently on the “long list”) that you believe should be considered.**

<b>ADDITIONAL MANAGEMENT ACTIONS THAT SHOULD BE CONSIDERED</b>
<ul style="list-style-type: none"> <li>▪ 4 mile creek headwater – control run off from eagle valley (excess nutrients)</li> <li>▪ Walker development in old gravel pit.</li> <li>▪ No storm water management plan.</li> <li>▪ Not having these meetings at our busy time of year</li> <li>▪ Don't take our lance (buffer zones) without paying for it.</li> </ul>

**Question 2: Evaluation Criteria**

Evaluation criteria will be used to develop a “short list” of management actions for further consideration.

**Looking at the draft evaluation criteria below...**

a. Please indicate their level of importance – high, medium or low.

<b>EVALUATION CRITERIA</b>			
Ability to meet study objectives and targets	H	M	<b>L (1)</b>
Environmental benefits and impacts	H	<b>M (1)</b>	L
Land requirements	<b>H (2)</b>	M	L
Implementation considerations, including phasing	H	<b>M (1)</b>	L
Cost	<b>H (2)</b>	M	L
Stakeholder/landowner acceptance	<b>H (2)</b>	M	L
Agency acceptance	H	M	<b>L (2)</b>
Recreational and cultural impact	H	<b>M (1)</b>	<b>L (1)</b>

b. What would you change or add (if anything) on the list of proposed evaluation criteria?

<b>SUGGESTED CHANGES/ADDITIONS TO CRITERIA</b>
<ul style="list-style-type: none"> <li>▪ Evaluation criteria is too vague</li> <li>▪ Cost?</li> <li>▪ Improve access to all areas for irrigation purposes.</li> <li>▪ Repetition of studies</li> <li>▪ Concern about overall cost of recommendations and who is going to pay abutting landowner, general public or province?</li> <li>▪ Could you explain what incentive programs are available?</li> </ul>

- c. Please provide any additional comments you have.
- Sustainable agriculture should be a primary driver in any plan. Balancing sustainable agriculture with the natural environment is a doable long-term goal that is and must be a priority of any NPCA study.
  - Tailor the timing of the process to allow for heavier participation on behalf of the stakeholders. Horticultural industry workload May – October restricts essential participation required to provide proper analysis.

**Suggestions for Study Goal**

- To promote the special and unique agricultural resource of Niagara-on-the-Lake and to promote its drainage and irrigation system within the context of the NOTL watershed.
- To promote economically feasible water management practices that recognizes primarily the irrigation/drainage in relation to the watercourse.
- To promote the natural environments of the Niagara-on-the-Lake watershed ecosystem, within the context of a unique, fragile agricultural resource, for the benefit of humans and other terrestrial and aquatic life.
- To promote environmentally sound and economically feasible water management practices that recognize the interdependencies between the watercourses and the irrigation drainage system and to do so in co-operation with the Irrigation Committee.

**Appendix E: Comments from Agricultural Landowners**



## PUBLIC OPEN HOUSE

### FLOODPLAIN MAPPING:

The Niagara Peninsula Conservation Authority (NPCA) has undertaken a Watershed Study for the Niagara-on-the-Lake watercourses. As part of this study, floodplain mapping has been developed for the following streams:

- Two Mile Creek;
- Four Mile Creek (including the Four Mile Pond Tributary);
- Six Mile Creek; and
- Eight Mile Creek.

Floodplain mapping is produced by the Authority to determine the flood-vulnerability of lands in accordance with provincial policy, and ensure that future development is not located in these areas. NPCA apply current floodplain policies, as adopted by the NPCA Board, to proposed activities or development within these areas. In addition to prevention programs, floodplain mapping assists in identifying existing development that could be subjected to flooding, thereby allowing the Authority to identify and review opportunities towards potential damage reduction.

You are invited to review the floodplain mapping at an open house to be held:

Tuesday, June 12<sup>th</sup>, 2007

7:00 – 9:00 pm

Platoff Community Centre

Niagara On The Lake



For information, please contact Dave Maunder, Aquafor Beech at 1-866-306-3885 ext. 290 or [maunder.d@aquaforbeech.com](mailto:maunder.d@aquaforbeech.com), or Suzanne McInnes, NPCA at 905-788-3135 ext. 235 or [smcinnnes@conservation-niagara.on.ca](mailto:smcinnnes@conservation-niagara.on.ca)

# PUBLIC OPEN HOUSE

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## NIAGARA-ON-THE-LAKE WATERSHED STUDY

The Niagara Peninsula Conservation Authority (NPCA) has undertaken a Watershed Study for the Niagara-on-the-Lake (NOTL) watercourses. This includes all of the lands within NOTL (and parts of Niagara Falls, St. Catharines and Thorold) in particular, the watersheds drained by:

- Two Mile Creek;
- Four Mile Creek (including the Four Mile Pond Tributary);
- Six Mile Creek; and
- Eight Mile Creek.

At the First Open House held on April 20, 2006, attendees were introduced to the study, identified and discussed the issues affecting the watershed, and developed watershed goals and objectives.

At the Second Open House held on June 20, 2006, participants reviewed existing environmental conditions, and discussed a wide range of management actions for protecting and enhancing the natural resources of the NOTL watersheds.

### ***Invitation***

You are invited to join the NPCA and others who share a common interest in protecting water resources and associated natural features at the third Open House for the NOTL Watershed Plan. **At this meeting the draft watershed plan and implementation strategy will be presented. We will be seeking your feedback on the plan and implementation strategy.** We will also be looking for input on opportunities for ongoing community involvement after the plan is complete.

**WHEN: Tuesday, June 19<sup>th</sup>, 2007**  
7:00 p.m. - 9:00 p.m.

**WHERE: Niagara-on-the-Lake Community Centre**  
29 Platoff Street  
Niagara-on-the-Lake, Ontario



*For more information, please contact Dave Maunder,  
Aquafor Beech at 1-866-306-3885 ext. 290 or [maunder.d@aquaforbeech.com](mailto:maunder.d@aquaforbeech.com),  
or Suzanne McInnes, NPCA at 905-788-3135 ext. 235 or  
[smcinn@conservation-niagara.on.ca](mailto:smcinn@conservation-niagara.on.ca)*

**NIAGARA ON THE LAKE WATERSHED STUDY  
OPEN HOUSE NO. 4  
JUNE 19, 2007  
QUESTIONNAIRE**

A total of 25 people attended this open house, which consisted of boards showing the final recommended plan and implementation strategy. Attendees were asked to fill out a questionnaire indicating their willingness to participate in implementation. Only 4 questionnaires were handed in with the following summarizing the results. The following are the list of recommended management actions that have been identified in the Niagara on the Lake Watershed Study. Details of each action are presented on the poster boards. Please indicate, by writing the corresponding number next to the action, your willingness to participate in the following activities, as they relate to each management action:

- 1. participate in workshops providing information on how to implement the action**
- 2. participate in a tour illustrating examples of the management action**
- 3. volunteer to have a demonstration project implemented on your property**
- 4. implement the management action if provided with incentives to do so**

<b>4 Questionnaire's received:</b>		<b>Yes</b>	<b>No</b>	<b>No answer</b>
Would you be willing to participate on the implementation committee for the study?		2	1	1
<b>COMMUNICATION AND EDUCATION</b>				
<b>8</b>	develop brochure/educational materials on shoreline erosion, approvals, preferred stabilization techniques, protection of fish and aquatic habitats	1		3
<b>1</b>	Review current incentive programs that target farmers and update to address current issues and problems; provide technical advice and support	2		2
<b>WATER QUANTITY</b>				
<b>10</b>	Minimize flooding of agricultural lands by: <b>10a</b> upgrading culverts, removing unnecessary weirs <b>10b</b> remove excess fill adjacent to drains/watercourses	3-10a		1-10a 4-10b
<b>11</b>	implement state of the art storm water management facilities – source, conveyance, end of pipe for new developments	1		3
<b>13</b>	implement a strategic drain maintenance and management program to reduce costs and improve stability (erosion and sedimentation of drains): <b>13a</b> design drain morphology to be more self sustaining <b>13b</b> introduce grade controls (eg 6 Mile Creek) to reduce erosion risk <b>13c</b> replace rip rapped side slopes with vegetated terraces (low growing vegetation) <b>13e</b> continue to remove any in stream structures outside of the irrigation season - consider water conservation measures to manage water use and in stream storage requirements <b>13f</b> in areas where fish have access to drains, minimize drain maintenance activities during spring: April 1 – June 30	1		3

14	Review the irrigation management system to identify any existing conflicts in water use among landowners – encourage off-line storage and other water conservation strategies; identify opportunities to maintain base flow; identify potential downstream impacts on watercourses			4
15	develop an erosion remediation plan using natural channel design principles for lower watercourses to address erosion and aquatic habitat impacts	1		3
<b>WATER QUALITY</b>				
21	implement water quality monitoring program to assess in stream water quality for irrigation and aquatic life	1		3
22	work with landowners to manage nutrient (nitrogen and phosphorus) and pesticide use and reduce potential for contaminated runoff (nutrients, suspended sediments, bacteria, chloride) and contaminated groundwater	1		3
23	work with landowners to develop a 6m buffer zone (3 m on either side) adjacent to drains (manage uses/activities within the buffer); implement a demonstration project			4
24	implement the recommendations of the Region’s Salt Vulnerability study and extend it to cover local roads.			4
<b>AQUATIC RESOURCES</b>				
26	work with landowners to manage land use activities adjacent to watercourses within a 10 m buffer zone (5 m on either side); implement a demonstration project	1		3
30	implement a community-based fish habitat improvement plan for Virgil Reservoirs and lower 4 Mile Creek, in cooperation with the Irrigation Committee:	1		3
<b>TERRESTRIAL RESOURCES</b>				
31	work with landowners to protect remaining forest and wetland habitats.			4
32	identify opportunities to create habitat linkages along the Escarpment			4
33	work with landowners to develop strategies to manage conflicts between wildlife and crops			4
<b>Please provide any additional comments you would like to make (use the reverse of the form if you require more space):</b>				
<ul style="list-style-type: none"> <li>• Funding shouldn’t come from irrigation committee.</li> <li>• Any plans to improve the water courses are a good idea. However any costs incurred should not be handed to the property owner. If society wants these improvements then society must absorb all costs. The true agricultural community cannot afford to desecrate their land because that is a short term gain and extremely foolish.</li> <li>• The message is confusing- Mr. A.L. Burt’s message in his letter to Mrs. Kirkby is that any of the initiatives presented can only be achieved on a voluntary basis; however throughout the message reads “Action Plan &amp; Implement” Do you, in the Farming Community have volunteers that are ready to Act &amp; Implement? Today June 19/07 for the first time on your poster it was finally shown under “Funding Alternatives” who will be expected to pay: NOTL, Irrigation Committee, and Land Owner; which can all be called one &amp; the same “The Land Owner”.</li> </ul>				
<b>If you wish to stay involved in the study, please provide your contact information:</b>				
<ul style="list-style-type: none"> <li>• I am interested to actively participate into a realistic, believable plan of <b>NO</b> more than 3 Initiatives that can be sold to the whole community and potentially funded by both levels of</li> </ul>				

government.