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## NIAGARA PENINSULA CONSERVATION AUTHORITY

### FULL AUTHORITY

WELLAND

AGENDA

MARCH 21, 2007 – 7:00 p.m.

#### ROLL CALL

#### DECLARATION OF CONFLICT OF INTEREST

#### BUSINESS:

(1) MINUTES - FULL AUTHORITY MEETING – FEBRUARY 21, 2007

Attached are the Minutes of the Full Authority meeting held February 21, 2007.

(2) BUSINESS ARISING FROM MINUTES

(3) PRESENTATIONS

Former members of the Board from the previous term have been invited to the meeting to receive a token of appreciation from the Authority for their service.

(4) CHAIRMAN'S REMARKS

(5) GENERAL MANAGER'S REPORT

(6) ACCOUNTS - FEBRUARY, 2007 – REPORT NO. 17-07

Attached is Staff Report No. 17-07 outlining the list of accounts for February, 2007.

(7) 2007 SALARY SCHEDULE – ECONOMIC ADJUSTMENT – REPORT NO. 18-07

Attached is Staff Report No.18-07 regarding the proposed 2007 Economic Adjustment.

(8) 2007 HONOURARIUM & PER DIEM ADJUSTMENT - REPORT NO. 19-07

Attached is Staff Report No. 19-07 outlining the 2007 Honourarium & Per Diem Adjustment.

(9) 2007 TRACTOR PURCHASE - REPORT NO. 20-07

Attached is Report No.20-07 outlining the quotes received.

(10) **DRAFT 2006 WATER QUALITY REPORT - REPORT NO. 21-07**

Attached is Staff Report No. 21-07 with respect to this report.

(11) **FLOODPLAIN MAPPING PROGRAM STATUS REPORT – REPORT NO. 22-07**

Attached is Staff Report No. 22-07 with respect to this matter.

(12) **TERMS OF REFERENCE – CENTRAL WELLAND RIVER WATERSHED PLAN – REPORT NO. 23-07**

Attached is Staff Report No. 23-07 regarding this plan together with the Terms of Reference.

(13) **TERMS OF REFERENCE – LAKE ERIE NORTH SHORE WATERSHED PLAN – REPORT NO. 24-07**

Attached is Staff Report No. 24-07 regarding this plan together with the Terms of Reference.

(14) **PRESENTATION – LAND MANAGEMENT PROGRAM**

Staff will provide a brief power point presentation on the various projects and activities in the Land Management Program of the Authority.

(15) **PROJECT STATUS REPORT – REPORT NO. 25-07**

Attached is Staff Report No. 25-07 outlining the status of Authority projects.

(16) **OTHER BUSINESS**

(17) **IN-CAMERA**

(a) **VIOLATION AND COMPLAINT STATUS REPORT – REPORT NO. CR 02-07**

Attached is confidential Report No. CR-02-07 regarding this matter.

(b) **WELLAND RIVER – RESTORATION AGREEMENT – REPORT NO. CR-03-07**

Attached is confidential Report No. CR-03-07 regarding this matter.

**ADJOURNMENT**

**WELLAND**

**NIAGARA PENINSULA CONSERVATION AUTHORITY  
FEBRUARY 21, 2007**

**7:00 p.m.**

**MINUTES**

**MEMBERS PRESENT:**

B. Baty (Vice-Chairman)  
B. Bentley  
B. Butters  
T. Dalimonte  
C. D'Angelo  
D. DiFruscio  
A. Fevez  
D. Goulbourne  
B. Henderson  
N. Johnson  
D. Martin

**MEMBERS ABSENT:**

G. Burroughs (with regrets)  
B. Greenwood (with regrets)  
B. Heit (with regrets)  
D. Ransom, Chairman (with regrets)

**STAFF PRESENT:**

A.L. Burt, General Manager  
L. Sawatzky, Recording Secretary  
T. McDougall, Executive Director Conservation Foundation  
M. Stack, Director Communications  
T. D'Amario, Director, Water Management  
D. Baker, Director, Land Management

**BUSINESS:**

The Chairman was not available for the meeting, therefore the Vice-Chairman assumed the chair and called the meeting to order at 7:05 p.m.

He then advised that with the recent passing of Gord Harry, it would be appropriate to recognize a moment of silence in his memory.

He then introduced our new member from Hamilton, Mr. Carmen D'Angelo and welcomed him to the Authority Board. He then welcomed those in attendance and requested anyone who had a conflict of interest to declare it.

**MINUTES**

**(a) ANNUAL AUTHORITY MEETING – JANUARY 24, 2007**

There were no errors or omissions, the following resolution was presented.

**FA-16-07**

**MOVED BY:** T. Dalimonte

**SECONDED BY:** D. DiFruscio

**THAT:** the Minutes of the Annual Authority meeting held January 24, 2007, be received and approved as printed.

**"CARRIED"**

**(b) FULL AUTHORITY MEETING – JANUARY 24, 2007**

There were no errors or omissions, the following resolution was presented.

**FA-17-07**

**MOVED BY:** B. Henderson

**SECONDED BY:** B. Butters

**THAT:** the Minutes of the Full Authority meeting held January 24, 2007, be received and approved as printed.

**"CARRIED"**

**(2) BUSINESS ARISING FROM MINUTES**

There was no business arising from the Minutes.

**(3) CHAIRMAN'S REMARKS**

The Vice-Chairman noted that the budget was recently presented to the Committee of the Whole by Tony D'Amario & Darcy Baker and went well.

The Vice-Chairman commented that because of the long-time dedication of Gord Harry to the Authority and conservation in general, a commemorative memorial should be looked into. He advised that consideration should be given to perhaps renaming the Wainfleet Rail Trail, or naming the future park at the Lakeview Camp property or something at the new Ball's Falls Centre.

**(4) GENERAL MANAGER'S REPORT**

The General Manager noted that former Board members will be recognized for their service at the March Board meeting.

The General Manager recommended that in recognition of Gord Harry's service to the Authority over the past 6 years as a Board member, 5 of those as the Chairman, combined with 35 years of service as an employee, a fitting tribute to honour Gord's service and dedication to the Conservation Authority and conservation in general would be to re-name the Wainfleet Rail Trail to The Gord Harry Conservation Trail. He noted that Gord was instrumental in the acquisition of the rail trail from the Township of Wainfleet during his tenure as Chairman. He also indicated he would meet with Gord's family to ensure this would be acceptable to them. All members of the Board concurred with the recommendation.

Authority Meeting - Minutes  
February 21, 2007 – continued

The General Manager advised that a Native Plant Guide has been prepared, the object of which is to encourage restoration and naturalization of watershed properties. This guide will be provided to property owners to assist them with their plant selection. A copy will be provided to each Board member as well.

The General Manager noted that the Authority budget will be presented to Hamilton Council on February 27<sup>th</sup> and advised that Andy Fevez had been re-appointed to the Board by the City of Hamilton.

The General Manager noted that the plaques will be presented next week to schools in the District of Niagara School Board that participated in the Eco School program in 2006.

With respect to the Hilton Garden Inn violation, the General Manager noted that the matter is completed with the owner pleading guilty and a fine of \$2,000.00 levied by the courts.

Regarding the matter of wetland classification, the General Manager advised he has reviewed this matter with Authority staff and it appears that MNR may be using a different interpretation of the criteria which affect the wetland limits. He noted a letter has been sent to senior MNR officials seeking clarification and confirmation of the approved MNR criteria.

(5) **ACCOUNTS – JANUARY, 2007 – REPORT NO. 07-07**

The General Manager responded to questions and the following resolution was presented.

**FA-18-07**

**MOVED BY:** C. D'Angelo

**SECONDED BY:** T. Dalimonte

**THAT:** The list of accounts for the month of January, 2007, in the amount of \$230,269.94 be received and approved.

**"CARRIED"**

(6) **2006 CURRENT & CAPITAL BUDGETS – UNAUDITED YEAR END - REPORT NO. 08-07**

The following resolution was presented.

**FA-19-07**

**MOVED BY:** A. Fevez

**SECONDED BY:** B. Henderson

**THAT:** Report No. 08-07 regarding the 2006 Current and Capital Budgets – Unaudited Year End be received; and

That the recommended appropriations be approved.

**"CARRIED"**

**(7) PROPOSED 2007 CURRENT BUDGET – REPORT NO. 09-07**

The General Manager responded to questions and the following resolution was presented. A recorded vote was taken with the results as follows.

**FA-20-07**

**MOVED BY:** D. DiFruscio

**SECONDED BY:** T. Dalimonte

**THAT:** Report No. 09-07 regarding the Proposed 2007 Current Budget be received; and

That the Proposed 2007 Current Budget with a total expenditure of \$5,617,600 and a general levy of \$1,785,300 and special levies of \$1,774,200 to the Region of Niagara, \$92,340 to the City of Hamilton and \$4,000 to Haldimand County be approved; and

That the 2007 matching levy in the amount of \$183,250 and the total non-matching levy in the amount of \$1,602,050 for the 2007 Current Budget be apportioned to the member municipalities on the basis of the 2000 current value assessment of the member municipalities proportionate to the total 2000 current value assessment within the Authority's area of jurisdiction; and

That the special levies for the 2007 Current Budget be assessed in the amount of \$1,774,200 to the Region of Niagara, \$92,340 to the City of Hamilton and \$4,000 to Haldimand County.

	<b>Yes</b>	<b>No</b>
<b>Brian Baty</b>	<b>x</b>	
<b>Bob Bentley</b>	<b>x</b>	
<b>Barbara Butters</b>	<b>x</b>	
<b>Tony Dalimonte</b>	<b>x</b>	
<b>Carmen D'Angelo</b>	<b>x</b>	
<b>Dominic DiFruscio</b>	<b>x</b>	
<b>Andy Fevez</b>	<b>x</b>	
<b>Damian Goulbourne</b>	<b>x</b>	
<b>Barbara Henderson</b>	<b>x</b>	
<b>Norm Johnson</b>	<b>x</b>	
<b>Douglas Martin</b>	<b>x</b>	

**"CARRIED UNANIMOUS"**

**(8) PROPOSED 2007 CAPITAL BUDGET - REPORT NO. 10-07**

The General Manager responded to questions, after which the following resolution was presented. A recorded vote was taken with the results as follows.

**FA-21-07**

**MOVED BY:** B. Butters

**SECONDED BY:** A. Fevez

**THAT:** Report No. 10-07 regarding the Proposed 2007 Capital Budget be received;  
and

That the Proposed 2007 Capital Budget with a total expenditure of \$9,385,900 and a general levy of \$1,241,700 and special levies of \$1,164,700 to the Region of Niagara, \$158,800 to the City of Hamilton and \$27,300 to Haldimand County be approved; and

That the 2007 general levy in the amount of \$1,241,700 be apportioned to the member municipalities on the basis of the 2000 current value assessment of the member municipalities proportionate to the total 2000 current value assessment within the Authority's area of jurisdiction; and

That special levies for the 2007 Capital Budget be assessed in the amount of \$1,164,700 to the Region of Niagara, \$158,800 to the City of Hamilton and \$27,300 to Haldimand County.

	Yes	No
Brian Baty	x	
Bob Bentley	x	
Barbara Butters	x	
Tony Dalimonte	x	
Carmen D'Angelo	x	
Dominic DiFruscio	x	
Andy Fevez	x	
Damian Goulbourne	x	
Barbara Henderson	x	
Norm Johnson	x	
Douglas Martin	x	

**"CARRIED UNANIMOUS"**

**(9) 2007 VEHICLE PURCHASE – REPORT NO. 11-07**

The Director, Water Management outlined the staff report, noting further information had been received from Border Pontiac advising they had made an error in their quotation and wished to withdraw their quote for the two ½ ton pick-up trucks. The Director, Land Management advised that should the Board agree to do this, the second lowest quote would be recommended. After a lengthy discussion on this matter, the Vice-Chairman suggested that in light of this information the resolution as submitted be separated and the quotes for the 2 ½ ton pickups and the 1 ton pick up be treated separately. The following resolutions were therefore presented.

Authority Meeting - Minutes  
February 21, 2007 – continued

**FA-22-07**

**MOVED BY:** T. Dalimonte

**SECONDED BY:** D. DiFruscio

**THAT:** the low quotation, dated February 6<sup>th</sup>, 2007, received from Border Pontiac Buick GMC Truck to supply two (2) 2007 ½-ton pick-up trucks, for the total price of \$17,910.31 including trade-in and all applicable taxes be accepted.

**“DEFEATED”**

The following resolution was then presented.

**FA-23-07**

**MOVED BY:** T. Dalimonte

**SECONDED BY:** D. DiFruscio

**THAT:** the quotation, dated February 6<sup>th</sup>, 2007, received from Performance Chrysler to supply two (2) 2007 ½-ton pick-up trucks, for the total price of \$17,959.56 including trade-in and all applicable taxes be accepted.

**“CARRIED”**

**FA-24-07**

**MOVED BY:** T. Dalimonte

**SECONDED BY:** D. DiFruscio

**THAT:** the low quotation, dated February 12<sup>th</sup>, 2007, received from Performance Chrysler Dodge Jeep to supply one (1) 2007 1-ton pick-up truck, for the total price of \$27,168.48 including trade-in and all applicable taxes be accepted.

**“CARRIED”**

**(10) 2007 EQUIPMENT PURCHASE – REPORT NO. 12-07**

The Director, Land Management outlined the staff report. After responding to questions, the following resolution was presented.

**FA-25-07**

**MOVED BY:** B. Henderson

**SECONDED BY:** D. Martin

**THAT:** the low quotation, dated February 12<sup>th</sup>, 2007, received from Ben Berg Farm & Ind. Equipment, to supply two (2) 2007 Kubota F2880 front mount mowers for the total price of \$34,529.46 including trade-in allowance and all applicable taxes, be accepted.

**“CARRIED”**



(11) **2007 CONSERVATION AREA FEE SCHEDULE – REPORT NO. 13-07**

The Director, Land Management outlined in detail the proposed fee schedule for 2007 and responded to questions.

**FA-26-07**

**MOVED BY:** D. DiFruscio

**SECONDED BY:** C. D'Angelo

**THAT:** Report No. 13-07 be received, and

That the proposed 2007 Conservation Area Fee Schedule be approved.

**“CARRIED”**

(12) **LONG BEACH CONSERVATION AREA – ELECTRICAL UPGRADES – REPORT NO. 14-07**

The Director, Land Management outlined the results of the quotations received and the recommendations. After responding to questions, the following resolution was presented.

**FA-27-07**

**MOVED BY:** D. Martin

**SECONDED BY:** B. Henderson

**THAT:** Report No. 16-07, regarding Long Beach Electrical Upgrades be received; and

That Project 07-LB-001 be awarded to Galbraith Electric for the contract price of \$37,450.00; and

That Project 07-LB-002 be awarded to Galbraith Electric for the contract price of \$40,627.90.

**“CARRIED”**

(13) **PRESENTATION – WATER MANAGEMENT PROGRAM**

The Director, Water Management provided the Board with a power point presentation of the projects and activities in the Water Management Program. Following his presentation, he responded to questions.

(14) **PROJECT STATUS REPORT – REPORT NO. 15-07**

There were no questions with respect to this report. The following resolution was presented.

**FA-28-07**

**MOVED BY:** A. Fevez

**SECONDED BY:** B. Bentley

**THAT:** Report No. 15-07, outlining the status of Authority projects be received for information.

**“CARRIED”**

**(15) OTHER BUSINESS**

There was no further business.

**(16) IN-CAMERA – VIOLATION AND COMPLAINT STATUS REPORT – REPORT NO. CR-01-07**

In accordance with Authority policy, the following resolutions were presented.

**FA-29-07**

**MOVED BY:** D. Goulbourne

**SECONDED BY:** B. Bentley

**THAT:** this meeting do now move in-camera.

Received at 8:25 p.m.

**“CARRIED”**

**FA-30-07**

**MOVED BY:** B. Bentley

**SECONDED BY:** T. Dalimonte

**THAT:** this meeting do now move back into open session.

Received at 8:29 p.m.

**“CARRIED”**

**ADJOURNMENT**

There being no further business, the following resolution was presented.

**FA-31-07**

**MOVED BY:** B. Bentley

**SECONDED BY:** D. Martin

**THAT:** this meeting do now adjourn.

Received at 8:29 p.m.

**“CARRIED”**



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**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: Accounts February 2007 - Report No. 17-07**

Attached is the list of accounts for the month of March 2007 in the amount of \$205,343.66.

**Recommendation:**

**The list of accounts for the month of February, 2007, in the amount of \$205,343.66 be received and approved.**

Respectfully Submitted by:

\_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer



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**TO: The Chairman and Members of the Authority**

**DATE: March 14, 2007**

**SUBJECT: 2007 Salary Schedule - Economic Adjustment – Report No. 18-07**

In the 2007 budget, allowance has been provided for a 2.75% economic adjustment to the Authority's salary & wage schedule which is consistent with the adjustment awarded by the Region of Niagara to non-union personnel for 2007. It is recommended that the Authority's economic adjustment to the salary schedule be approved retroactive to January 1, 2007.

**RECOMMENDATION:**

That a 2.75% economic adjustment to the Authority's salary schedule be approved retroactive to January 1, 2007.

Respectfully Submitted By: \_\_\_\_\_  
Andrew L. Burt, General Manager/ Secretary-Treasurer



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**TO: The Chairman and Members of the Authority**

**DATE: March 14, 2007**

**SUBJECT: 2007 Honourarium & Per Diem Adjustment– Report No. 19-07**

The Chairman's honourarium and member per diems are currently \$4,217 annually and \$62.00 per meeting respectively. It is recommended that the rates be increased by a 2.75% economic adjustment retroactive to January 1, 2007. With this adjustment, the honourarium would be \$4,333 and the per diem would be \$63.70. In accordance with Section 37 of The Conservation Authorities Act, approval of the Ontario Municipal Board is required.

**RECOMMENDATION:**

That the Report No. 19-07 regarding the Honourarium and Per Diem Economic Adjustment be received; and

That subject to the approval of the Ontario Municipal Board in accordance with Section 37 of The Conservation Authorities Act, the Chairman's honourarium be adjusted to \$4,333 per annum and the member per diem be adjusted to \$63.70 per meeting, retroactive to January 1, 2007.

Respectfully Submitted By: \_\_\_\_\_  
Andrew L. Burt  
General Manager/Secretary-Treasurer



**NIAGARA PENINSULA  
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AUTHORITY**

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**TO: The Chairman and Members of the Authority**

**DATE: March 12, 2007**

**SUBJECT: 2007 Tractor Purchase – Report No. 20-07**

Funds have been allocated in the 2007 budget for the purchase of 1 tractor, equipped with a front-end loader and snow blower for the Binbrook Conservation Area.

Six area equipment dealers were asked to provide quotes. The quotes are summarized below. The price shown is for a 47 hp (approx.) 4wd tractor with a factory front-end loader attachment and rear mount snow blower, excluding taxes.

<u>Rank</u>	<u>Vendor</u>	<u>Make</u>	<u>Model</u>	<u>Price</u>
1.	Ben Berg Farm & Ind.	Kubota	L4400	\$23,627.00
2.	Oneida New Holland	NH Boomer	TC48DA	\$29,245.00
3.	Boyle tractor	Branson	4720	\$30,480.00
4.	O'Neil's Farm Equipment	Case IH	DX48	\$30,500.00
5.	Crossroads Equipment	John Deere	4320	\$31,142.36
6.	W. J. Heaslip	John Deere	4320	\$31,218.00

The Kubota L4400 tractor and loader meet the equipment specifications. Staff recommend that the quote from Ben Berg Farm & Industrial Equipment Ltd be accepted.

**RECOMMENDATION:**

That the March 8, 2007 quote from Ben Berg Farm & Industrial Equipment Ltd., to supply one Kubota L4400, 4wd tractor, a front end loader attachment and a Meteor 75" rear-mount snow blower for a price of \$23,627.00 be accepted.

**Prepared by: Darcy B. Baker - Director, Land Management**

Respectfully Submitted By: \_\_\_\_\_

Andrew L. Burt, General Manager/ Secretary-Treasurer



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**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: Draft 2006 Water Quality Report - Report No. 21-07**

Attached for the consideration of the NPCA Board is the draft water quality report for 2006. Following receipt of this report, Authority staff will prepare a final report for distribution to all member municipalities. This report is prepared on an annual basis to review the activities of the water quality monitoring program and to document the progress of water quality issues throughout the watershed.

**Recommendation:**

**That Report No. 21-07 regarding the Draft 2006 Water Quality Report be received and the recommendations contained therein approved; and**

**That copies of the final 2006 Water Quality Report be forwarded to the watershed municipalities, the watershed Medical Officers of Health, the Ministry of the Environment, the watershed MPP's and MP's.**

Prepared by: Tony D'Amario, P. Eng., Director, Water Management

Respectfully Submitted by:

\_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer

## EXECUTIVE SUMMARY

The NPCA Water Quality Program was implemented in 2001 and is operated in partnership with the Ministry of the Environment, Regional Municipality of Niagara, and City of Hamilton. Through these partnerships NPCA staff collects water quality samples and the supporting agencies provide laboratory analysis. Surface water quality samples are collected monthly at 50 monitoring stations located throughout the NPCA watershed and analyzed using several indicator parameters including: chloride, nitrate, total phosphorus, suspended solids, copper, lead, zinc, and *E. coli*. These indicator parameters were used to calculate the CCME Water Quality Index (WQI), which provides a descriptive water quality rating for each station. Benthic invertebrate samples are collected annually throughout the watershed during the spring and fall seasons to assess stream health using the BioMAP protocol. The NPCA also operates 15 groundwater monitoring stations in partnership with the MOE as part of the Provincial Groundwater Monitoring Network.

In general, water quality monitoring data collected between 2001 and 2006 is summarized as follows:

- Based on the results of the 2006 WQI, 74% of the NPCA surface water monitoring stations have water quality rated as *poor*, 20% are rated as *marginal*, and 4% are rated as *fair*. None of the stations were able to achieve a WQI rating of *good* or *excellent*.
- Based on the results of the 2006 BioMAP assessments, 88% of the NPCA BioMAP stations have water quality rated as *impaired*, 6% are rated as *grey zone*, and 6% are rated as *unimpaired*.
- The Effingham tributary of upper Twelve Mile Creek continues to achieve the highest water quality rating in the NPCA watershed, with a WQI rating of *fair* and BioMAP rating of *unimpaired*.
- Total phosphorous concentrations frequently exceed the provincial objective at all 50 monitoring stations. Based on the data collected to date, elevated concentrations of total phosphorus are the most frequent and widespread cause of water quality impairment in the NPCA watershed. The relative high frequency and magnitude of these exceedances was a driving factor in lowering the WQI at all stations.
- Data collected from PGMN monitoring wells indicates that groundwater quality generally meets Ontario Drinking Water Standards (MOE 2003). Exceedances of boron, selenium and fluoride are attributed to natural bedrock conditions. Nitrate exceedances are attributed to agricultural landuse or faulty septic systems.

Recommendations from the NPCA Water Quality Program 2006 Annual Report are summarized as follows:

- Continue to implement watershed restoration projects with an emphasis on nutrient management. Watersheds with the highest and most frequent nutrient exceedances should be targeted where possible. For example, Beaver Creek, Big Forks Creek, and Oswego Creek in the Welland River watershed have low WQI ratings, largely resulting from very high concentrations of total phosphorus.
- Continue to implement watershed restoration projects with an emphasis on riparian buffers and increased forest cover. Watersheds with frequent exceedances of suspended solids, high stream sediment loading and erosion should be targeted where possible. For example, accelerated sedimentation has been observed in upper Twenty Mile Creek and upper Twelve Mile Creek, and high concentrations of suspended solids are observed in Oswego Creek and Fifteen Mile Creek.



- Develop and implement a septic system awareness program in partnership with local municipalities and the Region of Niagara Public Health Department. A survey of rural landowners completed by the NPCA in 1995 identified aging and faulty septic systems as a widespread issue in the Welland River watershed (NPCA 1996). Aging and faulty septic systems contribute to poor water quality by discharging partly or untreated sewage effluent into watercourses, resulting in elevated concentrations of nutrients and bacteria.
- Continue to implement the recommendations outlined in the Groundwater Management Strategy of the NPCA Groundwater Study (Waterloo Hydrogeologic Inc. 2005). The Groundwater Management Strategy recommends several actions to assist in protecting groundwater quantity and quality, with a special emphasis on sensitive areas where this is a high potential for groundwater contamination.
- Continue to foster and expand partnerships with other agencies to strengthen support for water quality monitoring initiatives in the NPCA watershed. This includes representation through community outreach and education projects such as the Niagara Children's Water Festival and broader initiatives such as the Niagara Water Quality Protection Strategy (Region of Niagara 2003).
- Continue monitoring surface and groundwater quality using the network of stations established by the NPCA and its partners, and consider expanding the network to fill data gaps where required.

In 2007 the NPCA Water Quality Monitoring Program will continue to provide valuable information to stakeholders regarding the state of water resources in the Niagara Peninsula. Surface and groundwater data will continue to be collected from monitoring stations located throughout the watershed. As with previous years, the results from our sampling and analysis will be discussed with restoration and watershed planning staff so that sources of nutrients can be identified and addressed through water quality improvement programs.



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**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: Floodplain Mapping Program –Status Report – Report No. 22-07**

In anticipation of the Generic Regulations that were passed early in 2006 and to ensure that the NPCA had appropriate and up-to-date flood plain mapping for all watercourses within the watershed, a mapping and remapping program was initiated in 2004. Since that time, 12 watercourses/creeks have been remapped either in conjunction with Watershed Plans or undertaken in-house by technical staff. For 2007, 7 watercourses will be remapped by technical staff, 9 watercourses mapped through watershed plans. An additional 15 watercourses will have mapping started in 2007 with anticipated completion in 2008/2009. All remaining watercourses (approximately 23) are scheduled for completion over the next 3 years (anticipated completion of all work by 2010) either in combination with future watershed plans or separately by technical staff.

All mapping is undertaken in accordance with the Provincial Technical Guidelines adopted for flood plain mapping. With the exception of 10 Mile Creek, Shriner's Creek, Tributary W-6-5 and Beaverdams Creek (City of Niagara Falls requested floodplain mapping to Regional Storm standard), all watercourses within the jurisdictional area of the NPCA are mapped to the 1:100 year flood standard. This standard is the minimum standard allowed by the Province of Ontario.

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

Staff will bring forth all mapping projects to the Board for their review and eventual approval. Initial reports will outline the mapping project, review potential problem areas and recommend mitigation options with costs. Following a public consultation program and presentation to the corresponding Municipal Council, NPCA will present the final mapping project for Board approval.

**Recommendation:**

**That Report No. 22-07 regarding the Floodplain Mapping Program –Status Report be received for information.**

Prepared by: Tony D'Amario, P. Eng., Director, Water Management

Respectfully Submitted by:

\_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer

**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: Terms of Reference – Central Welland River Watershed Plan – Report No. 23-07**

Attached for the Board's consideration is the proposed Terms of Reference for the Central Welland River Watershed Plan.

The Central Welland River watershed primarily includes Local Management Areas 2.6, 2.7, 2.10, and 2.12 as identified in the *NWQPS* (2003), which fall within the Township of West Lincoln, Township of Wainfleet, City of Welland, Town of Pelham and a small section of the City of Port Colborne. Several subwatersheds form the Central Welland River watershed including Beaver Creek, Black Ash Creek, Sucker Creek, Drapers Creek, Little Forks Creek, Welland Canal 7-8, West Main Welland River 3, Biederman Drain, Coyle Creek, Welland Canal and Lyons Creek Drain.

The *NWQPS* has identified the need to manage Niagara's watersheds in such a manner as to "sustain healthy rural and urban communities in harmony with a natural environment, and rich in species diversity". Recent changes to the Provincial Policy Statement (PPS), issued under the Planning Act, now includes policies whereby Planning Authorities shall protect, improve or restore the quality and quantity of water by using the watershed as an ecologically meaningful scale for land use planning. The Central Welland River Watershed Plan will make recommendations to Planning Authorities on the best way to protect, improve and restore water quality and quantity in the land use planning process including floodplain mapping as well as recommend a restoration program and associated strategies to achieve the *NWQPS* vision.

The intent of this project is to produce a watershed plan developed in consultation with appropriate government agencies, landowners and interest groups that assists with the management of water, land/water interactions, aquatic life and aquatic resources to protect and improve the health of the watershed ecosystem. The Central Welland River Watershed Plan will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. Once complete, Central Welland River Watershed Plan will characterize the watershed; identify and prioritize key issues in the watershed and recommend strategies based on the key issues.

The project is targeted to be completed within 36 months of study initiation. The total estimated cost of this project is \$225,000 with annual budget allocations of \$75,000.

**RECOMMENDATION:**

**That the Terms of Reference for the Central Welland River Watershed Plan be approved; and**

**That a copy of this report be forwarded to the Regional Municipality of Niagara, Township of West Lincoln, Township of Wainfleet, City of Welland, Town of Pelham and the City of Port Colborne for their information.**

Prepared by: Jennifer Durley, Ph.D, Watershed Planning Specialist

Respectfully Submitted by: \_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer

# Central Welland River Watershed Plan

## Terms of Reference

### Introduction

The *Niagara Water Quality Protection Strategy (NWQPS)* (2003) has identified the need to manage Niagara's watersheds in such a manner as to "sustain healthy rural and urban communities in harmony with a natural environment, and rich in species diversity". The *Provincial Policy Statement (PPS)*, issued under the *Planning Act*, now includes policies whereby Planning Authorities shall protect, improve or restore the quality and quantity of water by using the watershed as an ecologically meaningful scale for land use planning. The Central Welland River Watershed Plan will make recommendations to Planning Authorities on the best way to protect, improve and restore water quality and quantity in the land use planning process as well as recommend a restoration program and associated strategies to achieve the *NWQPS* vision.

A Watershed Plan is a proactive document created cooperatively by government agencies and the community to manage the water, land/water interactions, aquatic life and aquatic resources within a particular watershed to protect the health of the ecosystem as land uses change. The Central Welland River Watershed Plan will update the existing *Welland River Strategy* (1999) and provide strategies that will allow the community to care for water resources, natural heritage, settlement and agriculture in the context of land use planning documents (e.g., Official Plans). It will also provide strategies for implementing the watershed initiatives and specify who is responsible for remedial actions outside of the land use planning process (e.g., restoration opportunities on public and private lands). The Central Welland River Watershed Plan will generally follow the process described in *Water Management on a Watershed Basis: Implementing an Ecosystem Approach*, (MOEE, MNR 1993).

The Central Welland River watershed primarily includes Local Management Areas 2.6, 2.7, 2.10, and 2.12 as identified in the *NWQPS* (2003), which fall within West Lincoln, Wainfleet, City of Welland, Town of Pelham and a small section of the City of Port Colborne. Several subwatersheds form the Central Welland River watershed including Beaver Creek, Black Ash Creek, Sucker Creek, Drapers Creek, Little Forks Creek, Welland Canal 7-8, West Main Welland River 3, Biederman Drain, Coyle Creek, Welland Canal and Lyons Creek Drain (Figure 1).

Local Management Areas 2.6, 2.7, 2.10 and 2.12 drain into the Niagara River. The Niagara River has been designated by the federal and provincial governments in cooperation with the International Joint Commission (IJC) as one of 43 Areas of Concern (AOC) in the Great Lakes basin. This designation is due to degraded water quality, which impairs complete use of the River's resources. In response to concerns over the health of the entire Niagara River ecosystem, a *Remedial Action Plan (RAP)* was developed. Recommendation 23 (p.17) of the Implementation Annex states: "Municipal planning documents incorporate ecologically based policies and design criteria". In addition, page 12 of the report includes habitat targets that could be included in Municipal Official Plans (e.g., 30% of the watershed should be natural forest and/or

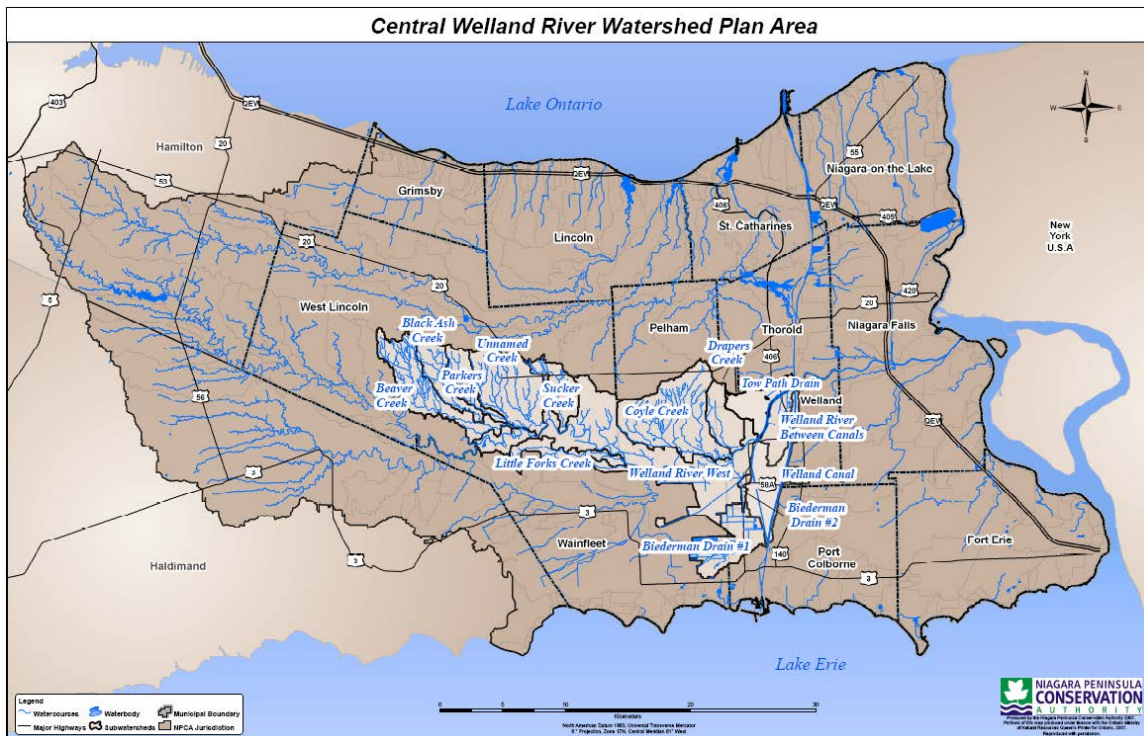


Figure 1

wetland, 10% of the land in each tributary as wetland, 30 metre natural vegetative buffers on streams, and so forth). The Central Welland River Watershed Plan will address the Niagara River RAP.

The Central Welland River Watershed Plan will also take into consideration any changes resulting from Phase 2 of the *RAP* (e.g., updated delisting criteria), which will be completed in 2007.

There are four water quality monitoring (chemical and biological) stations in the watershed; Welland River West, Beaver Creek, Coyle Creek, and Drapers Creek. Based on the results from the 2005 sampling season, all of these creeks have impaired water quality primarily from nutrient enrichment where total phosphorus routinely exceeds the Provincial Water Quality Objective (PWQO). Water quality at Coyle Creek and Drapers Creek also report exceedances of *E. coli*. Benthic invertebrate samples were collected from Coyle and Drapers Creeks using the BioMAP protocol. Analysis of the samples indicates that water quality is impaired at both sites.

Aquatic habitat is considered good in the watershed. For example, Drapers Creek, Coyle Creek, Sucker Creek, Black Ash Creek, Beaver Creek, Parkers Creek, Little Forks Creek, Welland River West and their tributaries are classed as critical and important fish habitat by the Ministry of Natural Resources. Biederman Drain #1 and #2 are municipal drains, which have been classified as Type B and E fish habitat under the Department of Fisheries and Oceans classification system. This system is based on such variables as flow conditions, temperature, fish species present, and the length of time since the drain was cleaned out.

Recreational uses in the watershed consist of the Old Welland Canal, and the Welland River is also used for outdoor activities such as canoeing and fishing. Several golf courses are located in the watershed including Hunter Point Golf Club, Riverview Golf and Country Club, The Water Park Golf and Country Club, and the majority of the Sparrow Lakes Golf Course.

### **Scope of the Study**

The intent of this project is to produce a watershed plan developed in consultation with appropriate government agencies, landowners and interest groups (e.g., Welland River Keepers) that assists with the management of water, land/water interactions, aquatic life and aquatic resources to protect and improve the health of the watershed ecosystem. The Central Welland River Watershed Plan will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. Once complete, the Central Welland River Watershed Plan will characterize the watershed; identify and prioritize key issues in the watershed and recommend strategies based on the key issues.

### **Specific Components of the Study**

#### **Public Consultation**

The purpose of public consultation is to ensure that concerns and issues are identified early and addressed appropriately. The public consultation plan will be based on an open and participatory process and will aim to create public awareness about the project.

A minimum of three public meetings/presentations that allow for further public input as required at critical stages of the project shall be included in the public consultation process. The format for public meetings will present opportunities for information exchange and feedback in the form of Open Houses and Stakeholder Workshops.

A project committee (with membership yet to be determined) shall be composed to provide guidance throughout the course of the study. NPCA staff will take appropriate minutes, and document concerns and action items as required.

#### **Watershed Inventory and Actions**

All available information pertaining to the Central Welland River watershed will be reviewed and field surveys will be conducted as necessary to produce a complete characterization and inventory of the watershed and watercourse conditions (including natural channels and municipal drains). The study components will include but not be limited to the following:

##### *Floodplain Mapping*

This component of the study will be sub-contracted to perform the necessary hydrologic and hydraulic analysis in order to generate 100 year return period floodlines for Drapers Creek, Biederman Drain #1, Little Forks Creek, Beaver Creek, Parkers Creek, Black Ash Creek, Unnamed Creek, Sucker Creek, Coyle Creek and Towpath

Drain. All components of this analysis shall be consistent with the Ministry of Natural Resources and the Flood Damage Reduction Program requirements.

### *Stream Morphology*

This component of the watershed study will confirm reach boundaries and channel sensitivities through a historic assessment and rapid geomorphic assessment. During the field survey, any sites where bank erosion is taking place or could potentially occur, will also be identified for all watercourses including municipal drains in the watershed. Recommendations for both structural and non-structural rehabilitation and restoration measures to establish natural levels of erosion in the watershed will be provided.

### *Fish and Aquatic Habitat*

This component of the study will assess existing fish communities and fish habitat conditions in the watershed. In addition, factors that limit the distribution (e.g., fish barriers) and abundance of healthy fish communities will be identified.

Fish habitat falls into 1 of 3 categories in Niagara: Type 1, Type 2 or Type 3. Habitat type is based on the sensitivity and significance of current or potential habitats in a water body. Type 1 habitat is the most sensitive habitat of the 3 types. As a result, it requires the highest level of protection. Type 2 habitat is less sensitive and requires a moderate level of protection. Type 2 areas are considered “ideal for enhancement or restoration projects” and include feeding areas for adult fish and unspecialized spawning habitat. The focus of this component of the watershed plan will be on aquatic habitat restoration opportunities in these areas of the watershed, including recommendations on priority areas and strategies to improve fish habitat.

Even though their purpose is to remove excess water from the land, municipal and agricultural drains do contain fish habitat. Therefore, drains are classed (A through F) according to flow, temperature, species, and the length of time since they were last cleaned out. For example, a Class A drain has permanent flow with cold or cool water temperature and no presence of trout or salmon present. Class E drains also have a permanent flow with warm water temperatures and top predators (e.g., bass, pike, and crappie) present in the drain. Therefore, environmental and habitat conditions of municipal drains in the watershed will be reviewed and recommendations on priority areas and strategies to improve fish habitat will be provided.

### *Natural Heritage*

This component of the watershed study will be sub-contracted to determine existing natural areas using the Ecological Land Classification (ELC) protocols. In addition, this component of the watershed planning process will identify the resource management role of existing wetlands and woodlands with respect to flood attenuation, wildlife habitat and water quality enhancement. Historic locations of wetlands and woodlands will also be reviewed. Based on this investigation, the project consultant shall propose sites for remediation to address issues such as flood attenuation, wildlife habitat, and water quality.



Additional areas suitable for upland, wetland and riparian habitat restoration or creation will be identified using NPCA Restoration Suitability mapping, which will be conducted by the NPCA.

### *Water Quality*

This component of the watershed study will assess the existing water quality of the creeks and tributaries within the Central Welland River watershed. NPCA water sampling data (2005) indicate that nutrient enrichment is the most prevalent type of water quality impairment found in the sampled creeks in this watershed. Specifically, concentrations of total phosphorous routinely exceed the Provincial Water Quality Objective. In addition, BioMAP samples indicate that water quality is impaired at two of the sites in this watershed. Therefore, this component of the study will assess water quality in the watershed, noting existing sources of pollution and make recommendations for remedial actions. In addition, opportunities for water quality enhancement will be identified where it is feasible to do so. A set of recommended water quality objectives based on stream use (e.g., aesthetics, fishery, recreation) will also be developed.

This study will also examine issues related to public concerns raised about the impact of existing development on watershed health including the impacts of stormwater discharge on water quality, biological diversity and productivity, downstream peak flows, and channel erosion.

The Niagara Peninsula Conservation Authority's *Groundwater Study* (2005) will also be reviewed to determine high sensitivity groundwater sites in the study watershed, and recommendations will be provided to protect groundwater resources.

### *Water Quantity*

The watershed plan will include an assessment pertaining to water quantity in the Central Welland River watershed. For example, the watershed study will include an evaluation of the ability of watercourses (including municipal drains) to sustain healthy populations and other aquatic life, as well as recreational uses (e.g., fishing). In addition, the impact of excessive flows (nuisance flooding) and inadequate flows (if/when they occur) on the concentration of pollutants, and increases in stream temperatures will form part of the study. Recommendations to enhance surface water quality during low water conditions in the watershed will be included in the watershed study.

### *Rural Point and Non-Point Source Pollution*

The *NWQPS* (2003) identified the need to assess the impacts of agriculture on water quality through an inventory of rural best management practices (BMP). Information was lacking in the watershed in terms of the significance of rural non-point source pollution problems such as livestock access, feedlot runoff, discharge of septic systems or livestock/farmstead wastes to watercourses, and municipal drains through the field tile drainage works.

To accomplish this component of the watershed plan, the results of a landowner survey that has been administered to rural landowners to identify any rural non-point source problem areas and identify rural BMPs will be included in the study.

### *Urban Development*

The *NWQPS* (2003) has identified issues associated with urban development for portions of this watershed (e.g., growth pressure on the west side of the City of Welland). In addition, the City of Welland has been identified as an “Economic Gateway Centre” in the *Growth Plan for the Greater Golden Horseshoe* (2006). Urban development can result in an increased frequency of flooding and peak flow volumes, decreased base flow, increased sediment loadings, changes in stream morphology, increased organic and inorganic loadings, increased stream temperature, and loss of aquatic/riparian habitat. Existing and future areas designated for urban development with respect to these potential impacts will be investigated in the watershed, and recommendations to protect, improve and restore water quality and quantity in these areas recognizing the recent changes to Provincial legislation (e.g., *Planning Act*, *Provincial Policy Statement*, and *Greater Golden Horseshoe Plan*).

## **Project Phases and Deliverables**

### **Develop a Watershed Plan and Restoration Strategy**

The Central Welland River Watershed Plan will have a specific focus on restoring and rehabilitating the creeks and their tributaries within the Central Welland River watershed. Consideration will be given to the input and issues brought forth through the public consultation process, the *NWQPS* (2003), the *Welland River Strategy* (1998) and the NPCA’s findings. The watershed planning process will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. It will be completed in 2 Phases including, but not limited to the following:

#### *Phase 1: Background Study and Issues Identification*

- Background data collection and synthesis (e.g., watershed characterization) including, but not limited to:
  - Floodplain Mapping
  - Natural Areas Inventory
  - Fluvial Geomorphology Study
  - Water Quality Study.
- Identification of key issues in the watershed.
- Identification of any technical studies to fill in any information gaps in the watershed study area.

#### *Phase 2: Watershed Strategy*

- Recommendations on stream rehabilitation and restoration measures, both structural and non-structural, municipal and regional policies, educational and outreach programs, and long and short term objectives.
- Identification and recommendation of restoration sites based on key issues in the watershed. Where applicable, all recommendations shall be separated based on ownership, whether publicly owned (Municipality or Regional Niagara) or private.

- A priority list including estimated costs for projects, activities, policies or other recommendations that are developed through the creation of the Watershed Plan.
- Recommendations regarding a monitoring program and performance indicators to assist in determining the effectiveness of Watershed Plan implementation.
- Recommendations for financial and information assistance programs that could be considered to assist in the implementation of the Watershed Plan.

### **Timing**

The project is targeted to be completed within 36 months of initiation.



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E-mail: [npca@conservation-niagara.on.ca](mailto:npca@conservation-niagara.on.ca)

**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: Terms of Reference – Lake Erie North Shore Watershed Plan – Report No. 24-07**

Attached for the Board's consideration is the proposed Terms of Reference for the Lake Erie North Shore Watershed Plan.

The Lake Erie North Shore watershed includes Local Management Areas 2.12, 3.1, 3.2 and 3.3 as identified in the *NWQPS* (2003), which fall within the City of Port Colborne, City of Welland, a small portion of the Town of Fort Erie, Township of Wainfleet and Haldimand County. Numerous subwatersheds form the Lake Erie North Shore watershed including Beaver Dam Creek (P.C.), Bearss Drain, Point Abino Drain, Bay Beach Area Drain, Oil Mill Creek, Wignell Creek, Indian Creek Drain, Hoover Drain, Low Banks Drain, Casey Drain, Eagle Marsh Drain, a portion of Wainfleet Marsh, Welland Canal South, and Lake Erie 3, 4, 5, 6, 7, 8, 9, 10, and 11. The major concentration of urban land uses (residential, commercial, industrial) is within the City of Port Colborne and the City of Welland.

The *NWQPS* has identified the need to manage Niagara's watersheds in such a manner as to "sustain healthy rural and urban communities in harmony with a natural environment, and rich in species diversity". Recent changes to the Provincial Policy Statement (PPS), issued under the Planning Act, now includes policies whereby Planning Authorities shall protect, improve or restore the quality and quantity of water by using the watershed as an ecologically meaningful scale for land use planning. The Lake Erie North Shore Watershed Plan will make recommendations to Planning Authorities on the best way to protect, improve and restore water quality and quantity in the land use planning process, including floodplain mapping, as well as recommend a restoration program and associated strategies to achieve the *NWQPS* vision.

The intent of this project is to produce a watershed plan developed in consultation with appropriate government agencies, landowners and interest groups that assists with the management of water, land/water interactions, aquatic life and aquatic resources to protect and improve the health of the watershed ecosystem. The Lake Erie North Shore Watershed Plan will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. Once complete, the Lake Erie North Shore Watershed Plan will characterize the watershed; identify and prioritize key issues in the watershed and recommend strategies based on the key issues.

The project is targeted to be completed within 36 months of study initiation. The total estimated cost of this project is \$225,000 with annual budget allocations of \$75,000.

**RECOMMENDATION:**

**That the Terms of Reference for the Lake Erie North Shore Watershed Plan be approved;  
and**

**That a copy of this report be forwarded to the Regional Municipality of Niagara, City of Port Colborne, City of Welland, Town of Fort Erie, Township of Wainfleet and Haldimand County for their information.**

Prepared by: Jennifer Durley, Ph.D, Watershed Planning Specialist

Respectfully Submitted by: \_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer

# **Lake Erie North Shore Watershed Plan**

## **Terms of Reference**

### **Introduction**

The *Niagara Water Quality Protection Strategy (NWQPS)* (2003) has identified the need to manage Niagara's watersheds in such a manner as to "sustain healthy rural and urban communities in harmony with a natural environment, and rich in species diversity". The *Provincial Policy Statement (PPS)*, issued under the *Planning Act*, now includes policies whereby Planning Authorities shall protect, improve or restore the quality and quantity of water by using the watershed as an ecologically meaningful scale for land use planning. The Lake Erie North Shore Watershed Plan will make recommendations to planning authorities, interest groups and landowners on the best way to protect, improve and restore water quality and quantity in the land use planning process as well as recommend a restoration program and associated strategies to achieve the *NWQPS* (2003) vision.

A Watershed Plan is a proactive document created cooperatively by government agencies and the community to manage the water, land/water interactions, aquatic life and aquatic resources within a particular watershed to protect the health of the ecosystem as land uses change. The Lake Erie North Shore Watershed Plan will provide strategies to allow the community to care for water resources, natural heritage, settlement and agriculture in the context of land use planning documents (e.g., Official Plans). It will also provide strategies for implementing watershed initiatives and specify who is responsible for remedial actions outside of the land use planning process (e.g., restoration opportunities on public and private lands). The Lake Erie North Shore Watershed Plan will generally follow the process described in *Water Management on a Watershed Basis: Implementing an Ecosystem Approach*, (MOEE, MNR 1993).

The Lake Erie North Shore watershed includes Local Management Areas 2.12, 3.1, 3.2 and 3.3 as identified in the *NWQPS* (2003), which fall within the City of Port Colborne, City of Welland, a small portion of the Town of Fort Erie, Township of Wainfleet and Haldimand County. Numerous subwatersheds form the Lake Erie North Shore watershed including Beaver Dam Creek (P.C.), Bearss Drain, Point Abino Drain, Bay Beach Area Drain, Oil Mill Creek, Wignell Creek, Indian Creek Drain, Hoover Drain, Low Banks Drain, Casey Drain, Eagle Marsh Drain, a portion of Wainfleet Marsh, Welland Canal South, and Lake Erie 3, 4, 5, 6, 7, 8, 9, 10, and 11 (Figure 1). The major concentration of urban land uses (residential, commercial, industrial) is within the City of Port Colborne and the City of Welland.

Local Management Area 2.12, which contains the Indian Creek Drain subwatershed drains into the Niagara River. The Niagara River has been designated by the federal and provincial governments in cooperation with the International Joint Commission (IJC) as one of forty-three Areas of Concern (AOC) in the Great Lakes basin. This designation is due to degraded water quality, which impairs complete use of the River's resources. In response to concerns over the health of the entire Niagara River ecosystem, a Remedial Action Plan (RAP) was developed. The Niagara River RAP Implementation Annex (November 2002) can be found on the NPCA website. Recommendation 23 (p.17) of the Implementation Annex states: "Municipal planning documents incorporate ecologically

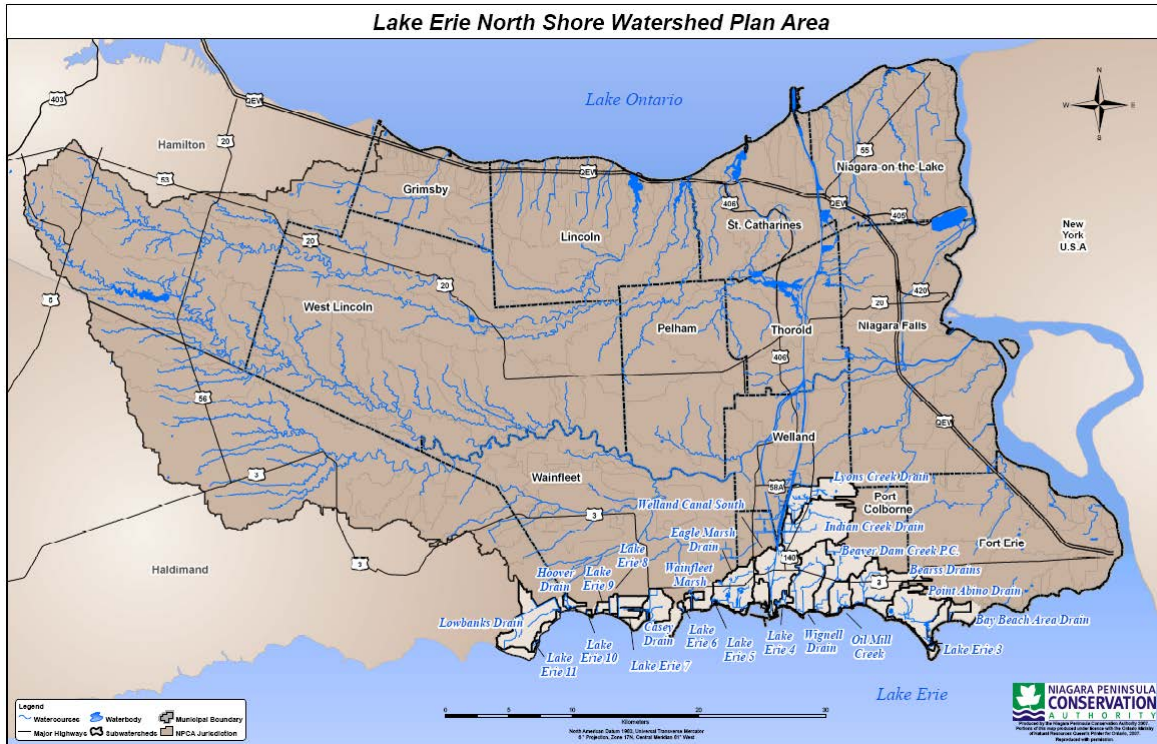


Figure 1

based policies and design criteria". Page 12 of the report includes habitat targets that could be included in Municipal Official Plans (e.g. 30% of the watershed should be natural forest and/or wetland, 10% of the land in each tributary as wetland, 30 metre natural vegetative buffers on streams, and so forth). The Lake Erie North Shore Watershed Plan will address the Niagara River RAP.

Local Management Areas 3.1, 3.2 and 3.3 drain to Lake Erie. Canada and the United States signed a Great Lakes Water Quality Agreement in 1978 which committed both countries to address water quality issues in the Great Lakes as a coordinated effort. Through this agreement both countries agreed to develop and implement Lakewide Management Plans (LaMPs) for each Great Lake. The purpose of the LaMPs is to identify environmental impairments in the lakes and develop strategies to restore these impairments. The Lake Erie LaMP was completed in 2000, and includes remedial actions that can be implemented immediately which addresses things such as urban sprawl, shoreline development, climate change, the introduction of non-native invasive species, the use and destruction of natural lands and resources. The Lake Erie North Shore Watershed Plan will address the Lake Erie LaMP.

The Lake Erie North Shore Watershed Plan will also take into consideration the Shoreline Management Plan for Lake Erie completed in June 1992 for the NPCA's jurisdiction. The major goals of the shoreline management plan were to minimize danger to life and property damage from flooding, erosion and associated hazards along the shoreline, as well as to ensure that shoreline development adequately addressed these hazards.

The topography of the Lake Erie North Shore watershed is relatively flat. Agriculture in the watershed is characterized primarily by poultry, dairy and some hog production,

grain, oilseed, and some cereal production. Aquatic habitat is considered fair in the watershed. For example, based on the Ministry of Natural Resources fish habitat classification many of the creeks and drains are classified as important fish habitat, with these areas being the most suitable for enhancement or restoration projects. Several municipal drains are also located in this watershed with Department of Fisheries and Oceans classification ranging from B through F. This classification system is based on such variables as flow conditions, temperature, fish species present, and the length of time since the drain was last cleaned out.

Recreational uses in the watershed include areas such as the Welland Canal, Low Banks, Mohawk Point, Long Beach Country Club. Numerous beaches are also located in the Lake Erie North Shore watershed including Nickel Beach, Lorraine Point, Pinecrest Point, Wyldwood Beach, Sherston Shores, Pleasant Beach, Point Abino, Abino Bay, Gravelly Point, Reeb's Bay, Gravelly Bay and Crystal Beach. The Port Colborne Country Club, Country Lane Golf Club and Whiskey Run Golf Course are also located in this watershed.

### **Scope of the Study**

The intent of this project is to produce a watershed plan developed in consultation with appropriate government agencies, landowners and interest groups that assists with the management of water, land/water interactions, aquatic life and aquatic resources to protect and improve the health of the watershed ecosystem. The Lake Erie North Shore Watershed Plan will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. Once complete, the Lake Erie North Shore Watershed Plan will characterize the watershed; identify and prioritize key issues in the watershed and recommend strategies based on the key issues.

### **Specific Components of the Study**

#### **Public Consultation**

The purpose of public consultation is to ensure that concerns and issues are identified early and addressed appropriately. The public consultation plan will be based on an open and participatory process and will aim to create public awareness about the project.

A minimum of three public meetings/presentations that allow for further public input as required at critical stages of the project shall be included in the public consultation process. The format for public meetings will present opportunities for information exchange and feedback in the form of Open Houses and Stakeholder Workshops.

A project committee (with membership yet to be determined) shall be composed to provide guidance throughout the course of the study. NPCA staff will take appropriate minutes, and document concerns and action items as required.

#### **Watershed Inventory and Actions**

All available information pertaining to the Lake Erie North Shore watershed will be reviewed and field surveys will be conducted as necessary to produce a complete



characterization and inventory of the watershed and watercourse conditions (including natural channels and municipal drains). The study components will include but not be limited to the following:

#### *Floodplain Mapping*

This component of the study will be sub-contracted to perform the necessary hydrologic and hydraulic analysis in order to generate 100 year return period floodlines for Eagle Marsh Drain, Beaver Dam Creek (P.C.), Bearss Drain, Point Abino Drain and Wignell Drain. All components of this analysis shall be consistent with the Ministry of Natural Resources and the Flood Damage Reduction Program requirements.

#### *Stream Morphology*

This component of the watershed study will confirm reach boundaries and channel sensitivities through a historic assessment and rapid geomorphic assessment. During the field survey, any sites where bank erosion is taking place or could potentially occur, will also be identified for all watercourses including municipal drains in the watershed. Recommendations for both structural and non-structural rehabilitation and restoration measures to establish natural levels of erosion in the watershed will be provided.

#### *Fish and Aquatic Habitat*

This component of the study will assess existing fish communities and fish habitat conditions in the watershed. In addition, factors that limit the distribution (e.g., fish barriers) and abundance of healthy fish communities will be identified.

Fish habitat falls into 1 of 3 categories in Niagara: Type 1, Type 2 or Type 3. Habitat type is based on the sensitivity and significance of current or potential habitats in a water body. Type 1 habitat is the most sensitive habitat of the 3 types. As a result, it requires the highest level of protection. Type 2 habitat is less sensitive and requires a moderate level of protection. Type 2 areas are considered "ideal for enhancement or restoration projects" and include feeding areas for adult fish and unspecialized spawning habitat. The focus of this component of the watershed plan will be on aquatic habitat restoration opportunities in these areas of the watershed including recommendations on priority areas and strategies to improve fish habitat.

Even though their purpose is to remove excess water from the land, municipal and agricultural drains do contain fish habitat. Therefore, drains are classed (A through F) according to flow, temperature, species, and the length of time since they were last cleaned out. For example, a Class A drain has permanent flow with cold or cool water temperature and no presence of trout or salmon present. Class E drains also have a permanent flow with warm water temperatures and top predators (e.g., bass, pike, and crappie) present in the drain. Therefore, environmental and habitat conditions of municipal drains in the watershed will be reviewed and recommendations on priority areas and strategies to improve fish habitat will be provided.

#### *Natural Heritage*

This component of the watershed plan will include the study of existing wetlands, woodlands, wildlife travel corridors and wildlife habitat areas as well as the relationship between wildlife and natural areas as conducted through the *Natural Areas Inventory* (NAI) project currently underway between the NPCA and Peninsula Field Naturalists. In addition to the information obtain through the NAI, this component of the watershed planning process will identify the resource management role of existing wetlands and woodlands with respect to flood attenuation, wildlife habitat and water quality enhancement. Historic locations of wetlands and woodlands will also be reviewed. Based on NPCA restoration suitability mapping, sites for remediation will be identified in the watershed. In addition, suitable sites to increase forest and wetland cover in the watershed will be proposed.

### *Water Quantity*

The Lake Erie North Shore Watershed Plan will assess issues pertaining to water quantity in the watershed. For example, the watershed study will include an evaluation of the ability of watercourses (including municipal drains) to sustain healthy populations and other aquatic life, as well as recreational uses (e.g., fishing).

### *Water Quality*

Water quality sampling is currently not collected for any water courses in the Lake Erie North Shore watershed. Therefore, this component of the study will assess water quality in the watershed, noting existing sources of pollution and make recommendations for remedial actions. In addition, opportunities for water quality enhancement will be identified where it is feasible to do so. A set of recommended water quality objectives based on stream use (e.g., aesthetics, fishery, recreation) will also be developed.

This study will also examine issues related to public concerns raised about the impact of existing development on watershed health including the impacts of stormwater discharge on water quality, biological diversity and productivity, downstream peak flows, and channel erosion.

The Niagara Peninsula Conservation Authority's *Groundwater Study* (2005) will also be reviewed to determine high sensitivity groundwater sites in the study watershed, and recommendations will be provided to protect groundwater resources.

### *Rural Point and Non-Point Source Pollution*

The *NWQPS* (2003) identified the need to assess the impacts of agriculture on water quality through an inventory of rural best management practices (BMP). Information was lacking in the watershed in terms of the significance of rural non-point source pollution problems such as livestock access, feedlot runoff, discharge of septic system or livestock/farmstead wastes to watercourses, and municipal drains through the field tile drainage works.

To accomplish this component of the watershed plan, the results of a landowner survey that has been administered to rural landowners to identify any rural non-point source problem areas and identify rural BMPs will be included in the study.

### *Lake Erie Shoreline*

Since the time the *Lake Erie Shoreline Management Plan* was prepared in 1992, the *Provincial Policy Statement* under the *Planning Act* has added new policies with respect to Natural Hazards. This component of the watershed plan will be sub-contracted to update the components of the Lake Erie Management Plan that are outdated to ensure that the current standards for Natural Hazards and Natural Heritage are met under the *Provincial Policy Statement*.

### *Urban Development*

The *NWQPS* (2003) has identified issues associated with urban development for portions of this watershed. Urban development can result in an increased frequency of flooding and peak flow volumes, decreased base flow, increased sediment loadings, changes in stream morphology, increased organic and inorganic loadings, increased stream temperature, and loss of aquatic/riparian habitat. Existing and future areas designated for urban development with respect to these potential impacts will be investigated in the watershed, and recommendations to protect, improve and restore water quality and quantity in these areas recognizing the recent changes to Provincial legislation (e.g., *Planning Act*, *Provincial Policy Statement*, and *Greater Golden Horseshoe Plan*).

## **Project Phases and Deliverables**

### **Develop a Watershed Plan and Restoration Strategy**

The Lake Erie North Shore Watershed Plan will have a specific focus on restoring and rehabilitating the creeks and their tributaries within this watershed. Consideration will be given to the input and issues brought forth through the public consultation process, the *NWQPS* (2003), and the study findings. The watershed planning process will provide a systematic strategy to guide development, identify and recommend alternative and preferred restoration programs, and strengthen stewardship and partnerships in the watershed. It will be completed in 2 Phases including, but not limited to the following:

#### *Phase 1: Background Study and Issues Identification*

- Background data collection and synthesis (e.g., watershed characterization) including, but not limited to:
  - Floodplain Mapping
  - Lake Erie Shoreline Study
  - Natural Areas Inventory
  - Fluvial Geomorphology Study
  - Water Quality Study.
- Identification of key issues in the watershed.
- Identification of any technical studies to fill in any information gaps in the watershed study area.

### *Phase 2: Watershed Strategy*

- Recommendations on stream rehabilitation and restoration measures, both structural and non-structural, municipal and regional policies, educational and outreach programs, and long and short term objectives.
- Identification and recommendation of restoration sites based on key issues in the watershed. Where applicable, all recommendations shall be separated based on ownership, whether publicly owned (Municipality or Regional Niagara) or private.
- A priority list including estimated costs for projects, activities, policies or other recommendations that are developed through the creation of the Watershed Plan.
- Recommendations regarding a monitoring program and performance indicators to assist in determining the effectiveness of Watershed Plan implementation.
- Recommendations for financial and information assistance programs that could be considered to assist in the implementation of the Watershed Plan.

### **Timing**

The project is targeted to be completed within 36 months of initiation.



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**TO: Chairman and Members of the Authority**

**DATE: November 1, 2007**

**RE: PROJECT STATUS REPORT - REPORT NO. 25-07**

## **WATER MANAGEMENT PROGRAM**

### **Binbrook Dam**

Throughout February, Binbrook Reservoir (Lake Niapenco) water levels have been steady at holding level (650.4 to 650.6 fasl) with little maintenance. Over the recent spring melt conditions, water levels have risen significantly. Ice fishing activities have now ended and staff will undertake appropriate discharging of flows to maintain water levels within normal operational parameters.

### **Flood Warning System**

March 1, 2007 - General Watercourse Safety Bulletin was issued. - storm related with possible melt effects.

March 13, 2007 - Spring Watercourse Safety Bulletin was issued - Annual spring melt bulletin.

### **Fifteen-Sixteen-Eighteen Mile Creeks Watershed Plan**

The Steering Committee for the Fifteen-Sixteen-Eighteen Mile Creeks Watershed Plan met for the first time on February 26th, 2007. The purpose of watershed planning and the approach used by the Niagara Peninsula Conservation Authority was presented at this meeting along with the draft Background Report for the watershed and the long-term work plan for the Fifteen-Sixteen-Eighteen Mile Creeks Watershed Plan. The Steering Committee will meet again on March 28<sup>th</sup>, 2007 to determine a vision and set of objectives for the watershed plan. In addition, Rhonneke Van Riesen, Watershed Planning Technician will present an overview of the fluvial geomorphology study conducted in the watershed. A public workshop is planned for April 2007, which will be used to gain more insight into the issues and concerns residents in the Fifteen-Sixteen-Eighteen Mile Creeks watershed may have about water quality and quantity as well as other land management issues.

### **South Niagara Falls Watershed Plan**

The Steering Committee for the South Niagara Falls Watershed Plan met for the first time on February 21st, 2007. The purpose of watershed planning and the approach used by the Niagara Peninsula Conservation Authority was presented at this meeting along with the draft Background Report for the watershed and the long-term work plan for the South Niagara Falls Watershed Plan. The Steering Committee will meet again on March 21<sup>st</sup>, 2007 to determine a vision and set of objectives for the watershed. A public workshop is planned for April 2007, which will be used to gain more insight into the issues and concerns residents in the South Niagara Falls watershed may have about water quality and quantity as well as other land management issues.

### **Source Water Protection (SWP) Program under the Clean Water Act**

The peer review record for the Water Budget Conceptual Understanding report was submitted to MNR for their review March 9. Work towards the Tier 1 water budget analysis is ongoing.

SWP staff have been assisting Regional Niagara with project management and other tasks associated with the Intake Protection Zone (IPZ) studies. These tasks include locating and/or retrieving information and data required for the IPZ studies (e.g. bathymetry files, storm sewer information, mapping files, etc). SWP staff also met with City of Hamilton on March 12, concerning several SWP initiatives

### **Natural Heritage Areas Inventory Update**

The project database is up and running and staff are busy entering all of the field data from the 2006 season. In addition to the field data, two staff have been entering the flora and fauna data from Environmental Impact Statements and Environmental Assessments in the NPCA and Region of Niagara planning files.

The project Steering Committee met on February 28th. The goal of the Steering Committee meeting was to finalize plans for the landowner contact for the 2007 field season. The GIS team has run scenarios to help the Steering Committee make informed decisions about targeting the field work for the coming year. Landowner contact/ permission letters will be mailed the third week of March.

We have received delivery of the draft watershed boundaries (MNR) for South Niagara Falls and MNR is currently working on the Haldimand area. The new colour air photos are arriving and the GIS team is working closely with the NAI team to complete the Community Series mapping for the upland communities.

Staff participated in the NPCA's community workshop in Port Colborne on February 28th and the Shades of Green Symposium at the Royal Botanical Gardens on March 8th.

### **Niagara River Remedial Action Plan**

#### **Contaminated sediments:**

The Contaminated Sediments Technical Committee is making arrangements to meet with the stakeholders for Lyon's Creek East and West (i.e. the City of Welland, Hydro One & Regional Niagara Health Dept.) to update them on the study's findings regarding sediment management options and determine their role in the process. The meeting is expected to be held in early 2007.

In the meantime, a letter to Transport Canada is being drafted in an effort to determine the agency's future land use intentions with regards to its property on Lyon's Creek West. This information is critical to the RAP to facilitate the selection of the preferred contaminated sediment management remedial option for the site.

Final comments have been submitted on the draft report - *Lyon's Creek Wetland East - Wetland Inventory and Monitoring March 2007*.

### **Niagara Water Strategy (NWS):**

In January 2007, representatives of NWS and RAP met to exchange information and discuss issues of common interest between the two programs.

NPCA staff have requested to participate on Steering Committees for the proposed NWS Direct Actions for 2006/2007.

The NWS Water Advisory Group (WAG) is expected to meet again in May 2007.

### **Stage 2 Update:**

The Technical Review Report - *Technical Review of Impairments and Delisting Criteria December 2006* - is currently under internal review by Environment Canada and MOE.

A new draft RAP work plan and monitoring plan (with a preliminary list of monitoring/assessment needs and their priorities for implementation) remain under review, discussion and revision by the RAP Coordinating Committee. The Committee is scheduled to meet in mid-March 2007 to further refine the plans and discuss content and timeframes for the draft Stage 2 Update Report. The plans are expected to be presented to the Steering Committee and PAC for their input early in 2007.

### **International Liaison:**

NPCA staff have been invited to sit on a Technical Advisory Committee for the Buffalo and Niagara River Habitat Project. The first meeting is scheduled for March 2007.

### **Niagara River Toxics Management Plan (NRTMP):**

The proposed timeframe for the full report and public meeting is early 2007.

### **Watershed Restoration**

Cost-share grant dollars and field extension services continue to be the main focus of the restoration program. Projects that will have a demonstrated benefit to improving local water quality or habitat diversity will be prioritized for funding. Project focus continues in the watersheds where there are completed watershed strategies (Niagara River/ Welland River Remedial Action Plan (RAP) area, Twelve Mile Creek, Twenty Mile Creek, and One Mile Creek).

In total approximately 65 restoration projects will be completed in 2007 across the NPCA watershed jurisdiction, they include 20 (approximately 100 acres) tree planting, 7 wetland, 15 riparian, 8 stream & bioengineering, and 15 Best Management Practices (BMP) projects

including manure storage improvements, livestock restriction form watercourses, grassed water ways, etc.

The Yellow-fish Road Program will have its spring launch as part of Earth Day and through a series of public events over the course of the spring, summer and fall. The remaining municipalities which will receive a council presentation about the program (asking for permission to mark storm drains) include NOTL (scheduled for April 10<sup>th</sup>), Town of Pelham, Fort Erie, West Lincoln, Lincoln and Wainfleet.

The Eco School Program is gearing up for the spring implementation of school yard naturalization projects across the watershed. Last year naturalization plots were established at 27 schools across the watershed. This year 24 applications were received. The in-class presentations have been scheduled with the teachers / principals. The site preparation and planting days have also been confirmed.

A series of workshops / open houses complementing the objectives of the Eco School program, and other Authority programs (water quality, restoration, etc) were held at the following dates and locations:

Tuesday, February 20th  
7:00 p.m. to 9:00 p.m.  
Grapeview School, 106 First St. Louth; St. Catharines

Wednesday, February 28th  
7:00 p.m. to 9:00 p.m.  
St. Patrick's School, 266 Rosemount Avenue; Port Colborne, ON

Tuesday, March 6th  
7:00 to 9:00 p.m.  
Stamford Collegiate, 5775 Drummond Rd; Niagara Falls, ON

In total over 200 members of the public participated between the 3 events.

### **Niagara River RAP / Welland River Restoration**

Staff continues to work with project landowners to prepare for the spring 2007 planting season. Staff is working on planting plans and ordering of native trees and shrubs for reforestation, wetland, farm shelterbelt and riparian buffer projects.

The Wetland Stewardship Program partnership with Ducks Unlimited has been gaining momentum as the NPCA and DU will be conducting site visits for possible 2007/2008 projects in March. Project locations include sites from Niagara Falls to Caistorville and all have the potential to improve water quality as well as increase habitat and staging areas for wildlife. Several of these prospective project sites that also have an Environmental Farm Plan could fall under Ducks Unlimited's Wetland Farm Stewardship Incentive Program.

### **Twelve Mile Creek**

The send meeting of the Twelve Mile Creek Watershed Plan Implementation Committee has been schedule for March 27<sup>th</sup>. Members represent the municipalities of St. Catharines and



Thorold, the Regional Municipality of Niagara, Peninsula Field Naturalists, Ontario Federation of Agriculture, Friends of Mel Swart Park, and Conservation Authority staff.

Projects for the 2007 include approximately 30 acres in reforestation plantings, 5 acres of enhanced/created wetland habitat, 2km of riparian buffer plantings and at least 5 Best Management Practices projects including manure storages / composting, erosion stabilization, trickle irrigation and various conservation farm practices.

### **Twenty Mile Creek Restoration**

The second meeting of the Twenty Mile Creek Watershed Plan Implementation Committee is scheduled for late April. Members represent the Township of West Lincoln, Township of Lincoln, City of Hamilton, Ontario Federation of Agriculture, a rural landowner, and Conservation Authority staff.

Projects for 2007 include three wetland projects including a 2 acre wetland creation near the confluence of Sinkhole Creek and a 3 acre pit and mound wetland project in Spring Creek. The third wetland project is a treatment wetland being designed by Niagara College students to treat overland flows at a large vineyard operation in Jordan.

Tree planting projects to-date total 16 acres including a 2 acre site, a 5 acre site and two 3 acre sites. Approximately 1200 meters of wind break will also be planted.

Two riparian planting projects are planned including 100 meters along Twenty Mile Creek west of Smithville and approximately 150 meters along a small tributary east of Smithville. Another project is tentatively planned to plant 160 m along Twenty Mile Creek that is highly visible from Highway 20 southeast of Smithville.

Conservation Farming Practices and BMP projects include a 270 meter grassed waterway including the installation of 4 rock chutes. Another planned grassed waterway project is 200 meters long in association with approximately 440 meters of cattle exclusion fencing. Two new manure storage projects and one milkhouse wash-water treatment project are also planned. Three manure storages from 2006 are also being completed in partnership with the Environmental Farm Plan. In addition, two projects to install eaves-troughs on cattle barns are also planned (Clean Water Projects).

### **One Mile Creek Restoration**

The next One Mile Creek Watershed Strategy Implementation Committee meeting will be held in April. Implementation Actions will be discussed as well as the prioritization of work plan actions. Three areas of action were agreed upon for immediate attention and they include Lansdowne Pond, the William Street Landfill and culvert replacements and upgrades. A meeting with NOTL Town staff and NPCA staff regarding culvert replacements that was scheduled to be held in late February has been rescheduled for April.

A public meeting for the Lansdowne Pond Study took place on Thursday November 9th at the NOTL Public Library. The purpose of the meeting was to meet with the landowners adjacent to the pond and listen to their concerns and thoughts regarding restoration options for the pond. The landowners in the area are supportive of wetland restoration happening in and around the pond and are leaning towards a larger dredging project that would result in providing better flow through the pond and some open water areas free of emergent plant growth. An update letter

was issued to adjacent landowners informing them about the next public meeting which will take place in early spring.

The Friends of One Mile Creek will be making a presentation at the April 10<sup>th</sup> NOTL council meeting regarding the status of the One Mile Creek Watershed Strategy.

### **GIS / Information Management**

Most GIS/IM efforts are currently focusing on Natural Areas Inventory mapping with the development of the Community Series fabric for the South Niagara Falls and Haldimand County field season focus areas, and the Natural Area Primary Site Hierarchy which is the spatial framework for integrating the tabular and mapping project databases. Landowner contact analyses for strategic targeting for this field season have also been completed.

Preliminary GIS based Water Budget exercises are also being conducted.

Data migration to the corporate published database hosted by the Region of Niagara continues.

### **Water Quality Program**

The NPCA Water Quality Program now has 4 consecutive years of surface water quality data covering several stations at over 20 watersheds, and water quality staff are currently finalizing the 2006 annual water quality report.

Analysis of the benthic invertebrate samples collected during the fall of 2006 is now complete. The 2006 annual biomonitoring report has been prepared and delivered to Hamilton International Airport and the Ministry of the Environment. Preparation of the biomonitoring reports for the City of Hamilton's Glanbrook Landfill and the Shriner's Creek constructed wetlands evaluation are currently underway.

Water quality staff recently gave a presentation at the Ontario Fruit and Vegetable Growers Convention held in late February at Brock University. Topics covered by the presentation included the NPCA Water Quality Monitoring Program, ways to ensure quality water leaves farm property, and available grant programs to implement agricultural best management practices.

Water quality and source protection staff also recently attended a 3-day training course in Waterloo for hydrogeology software. The software provides a GIS based database to store borehole information and methods to generate three dimensional cross-sections of subsurface geology. The training course was a deliverable provided by Waterloo Hydrogeologic through the NPCA Groundwater Study.

Groundwater monitoring continues at all 15 Provincial Groundwater Monitoring Network (PGMN) wells. Dedicated submersible pumps have been installed in 5 wells, and groundwater samples have been collected from 13 of 15 monitoring wells. These groundwater samples have been analyzed for several parameters including nutrients, metals, microbiology and general chemistry. The next round of samples will be collected this spring.

### **LAND MANAGEMENT DIVISION**

## **Ball's Falls Conservation Area**

The March Break Eco-Adventures Camp had 16 participants registered for a fun week of indoor and outdoor activities. Staff and volunteers will be offering snowshoeing, hiking, campfires and crafts for children ages 6-10 years. The majority of the children registered for the full week.

Three new workshops to be offered to adults this year are being finalized. Sessions will feature herbs, making a rustic willow chair and blacksmithing.

The Thanksgiving Festival has once again been included on the list of the Top 50 Ontario Festivals, as selected by the Ministry of Tourism and Festivals & Events Ontario. The festival selection committee will meet on March 22<sup>nd</sup> to review artisan applications for the 33<sup>rd</sup> Annual Thanksgiving Festival.

Staff are preparing the application for Canada Summer Jobs (CSJ), the new federal wage subsidy student employment program which replaces the Summer Career Placement program. The program remains relatively unchanged.

Authority staff will be undertaking repairs to the Blacksmith shop forge and curatorial treatment will be carried out on the leather bellows and the elevator and leather belts in the grist mill prior to the 2007 operating season.

Staff attended the Binational Tourism Alliance Conference, "Capitalizing on Cross-border Connections", in Niagara Falls, March 5th-6th. American delegates came from as far away as Rochester and the Finger Lakes area with Canadians attending from the Brantford and Cambridge area. Much of the conference was dedicated to discussing the economic value of tourism to cross-border areas and the impact that WHTI (Western Hemisphere Travellers Initiative) could have on cross-border travel and trade. The conference cited that over 10,000 tourism and cultural businesses operate in the cross-border Golden Horseshoe, generating more than 75,000 jobs and \$1 billion annually.

## **Ball's Falls Centre for Conservation**

Work on the site slowed down during February due to weather conditions. The storm drain installation was completed at 6<sup>th</sup> Avenue and backfilled, piping route was adjusted to allow for future heat pump coil installation. Staff are reviewing colour samples and the room colour schedule with the architect. The concrete piers at the building entrances were poured before the temperature dropped in February; the contractor used a winter formulated concrete mix to allow pour to proceed on schedule. Waterproofing of the main concrete retaining wall is installed, visible as blue coloured boards on the wall surface. Staff are scheduled to meet at the quarry with the landscape contractor to select the landscape stone to be quarried for the project. Staff are monitoring the work in progress and taking photographs for our reference and file.

## **Beamer Memorial Conservation Area**

Staff are preparing for the upcoming annual Public Hawkwatch Open House, put on by the Niagara Peninsula Hawkwatch Group. Authority staff will have a tent with display on the NPCA. In addition this year, staff are partnering with Carolinian Canada to unveil a natural heritage sign for the Grimsby- Winona Escarpment and Beamer Valley. This is a "Signature Site" of Carolinian Canada program.

### **St. Johns Conservation Area**

The Department of Fisheries and Oceans has provided funding for fish habitat enhancement at the St. Johns Conservation Area. Staff constructed and installed underwater fish habitat structures including two submerged timber cribs and several rootwads. These additional features increase habitat diversity, cover and food for the aquatic life in the pond. The improvements are part of a strategy to support a healthy aquatic ecosystem. Additional signs and fact sheets will provide educational awareness about aquatic habitat in the pond. This work will be completed by April 1, 2007. The trout season opening is on April 28, 2007.

### **Mud Lake Conservation Area**

As per previous years, area volunteers have completed the annual monitoring, clean out, and addition of new bedding material for 12 Wood Duck Boxes at Mud Lake Conservation Area. For the 12 nesting boxes, three boxes were reported missing or damaged. The remaining successfully hatched 30 wood ducks, as well as providing cover/habitat for eastern screech owls throughout the year. Three boxes identified for replacement/repair were fixed by NPCA staff in early March 2007

### **Wainfleet Bog Conservation Area**

Staff completed the analysis of the 2006 water level monitoring program at the bog. The 2006 hydrologic assessment indicates we are progressing towards our goal of moister soils, slower water loss, and increased groundwater levels (as a more natural bog setting).

Bog Species Recovery.

A contingency plan has been developed for the Wainfleet Eastern Massasauga Rattlesnake, should the Wainfleet Bog population crash. The draft plan will be presented to the EMR Recovery Team this spring for comment.

### **Willoughby Marsh Conservation Area**

The Spoon Leaf Moss survey was completed at the end of February. This project was a joint initiative in cooperation with the Ministry of Natural Resources. Additional information of moss habitat was gathered for the species. Over 50 Willoughby marsh landowners were contacted by mail outlining unique ecosystem features, moss species, threats, protective tax incentive programs and NPCA contact for unauthorized ATV use and, tree cutting. A final report will be completed documenting the findings and recovery work to date and submitted to the Moss Recovery Team.

### **Carolinian Canada Signs**

NPCA staff are working with Carolinian Canada on the communication event for the 'Grimsby-Winona Escarpment- Beamer Valley' and 'Willoughby Clay Plain' Carolinian Features signs for Beamer Memorial and Willoughby Conservation Areas. An unveiling of the signs has been scheduled for Hawk Watch Open House at Beamer Conservation Area on Good Friday.

## **LaMP Lake Ontario Management Plan**

NPCA Ecologist attended the recent workshop for the LaMP Lake Ontario Strategy on wildlife habitat and biodiversity. Our CA involvement was to help develop an international monitoring protocol and strategy for addressing wildlife habitat issues and ensuring a healthy lake. Group participants assisted in developing strategies for addressing a number of target issues related to coastal shore, open lake, coastal marsh, lake plain system, tributaries and connecting channel systems, inland terrestrial systems and inland wetland system

## **NPCA Hunting**

Staff received and issued an additional 16 hunting permits/permission for 2007. To date 92 hunting permits have been issued. Of these, 20 permits are issued to individuals residing outside of our administrative area.

## **2007 NPCA Volunteer Opportunity**

Staff has assisted in compiling and completing the list of volunteer activity opportunities offered by the NPCA. Hard copies and .pdf computer files have been sent to all high schools in our administrative area and all persons having expressed an interest in volunteering with the NPCA. A hard copy is also attached for board members.

## **Gord Harry Conservation Trail, Wainfleet**

New trail signs have been designed and sent to the Region sign shop to prepare for the trail dedication ceremony planned for later this April. The 13km rail trail in Wainfleet crosses over eleven roads and two unopened road allowances. Consequently, trail signs on the gates at each road crossing will be changed over to the new name this season. Staff are also discussing with Wainfleet staff the possibility of installing trail name and warning signs on the road allowance to inform motorists they are approaching the trail. The design and placement of these warning signs will be reviewed with municipal staff for their approval of installation.

## **EC Brown - New Constructed Wetland Project**

Staff in the land department are assisting with the planning, design, and construction of the new trails, boardwalks and lookout platforms proposed for this site.

## **Property Assessments**

Minutes of Settlement have been signed with MPAC for Ruigrok Tract, Mountainview and EC Brown which reduce our current residential taxation rates for these lands. Staff are working with Haldimand County to update their records for Ruigrok Tract to reflect the settlement. MPAC was also contacted to resolve our 2003 assessment for Virgil Dam before it went to an Assessment Board Hearing scheduled in February. Another hearing is scheduled for the 2003 tax assessment of our EC Brown property, it is anticipated this will be resolved with MPAC before the hearing date. Inquiries were made by staff for MPAC to review the residential taxation rise being observed on our Long Beach campground lands on Lake Erie; staff will be pursuing discussion with MPAC to review this land in detail for the 2007 / 2008 taxation years.

## **Long Beach Conservation Area**

A pre-construction meeting was held on March 9<sup>th</sup> to coordinate the contract work for electrical upgrades. Work began March 12<sup>th</sup> and is expected to be completed by April 21<sup>st</sup>, well ahead of the seasonal opening date.

## **Chippawa Creek Conservation Area**

Staff completed upgrades to the plumbing fixtures at the main comfort station. Original plumbing at the beach washroom was also repaired, and servicing problems were corrected. This work should eliminate any difficulties with operations during the 2007 camping season.

## **Binbrook Conservation Area**

Ice fishing season officially closes on March 15<sup>th</sup>. 2007 started out with very poor prospects for any ice fishing, however the frigid late-January and February temperatures provided safe, sturdy ice cover. This was the first year the NPCA offered ice hut rentals. In addition, the Conservation Area was open for other day-use activities.

The ice fishing derby on February 11<sup>th</sup>, had fewer participants than the previous derby in 2005. This was partially due to the extreme cold temperatures. Sponsors of the event are interested in continuing their support in 2008.

Overall the winter program was very well received. Although the ice fishing program is closed, staff will maintain a presence at the area until the ice sheet has melted to help ensure public safety.

Staff from the Norfolk County Parks & Recreation Department visited the site to tour the splash pad installation. The County is faced with re-engineering their facility to a recirculating system. The Binbrook pad is one of only two splash pads in Ontario that are designed with a recirculating system to help prevent the unnecessary waste of water. Some municipal spray pads of a similar size go through 50 gallons per minute. When you calculate this amount over the operating season, it is roughly equivalent to the amount of water used by 300 to 500 households in an entire year.

## **COMMUNITY RELATIONS**

### **Annual Report**

Preparations are continuing for the production of the Annual Report. Staff anticipates that this will be complete by early April.

### **Eco School Presentations**

Staff attended the District School Board of Niagara Board Meeting on February 27 to present plaques to schools that participated in the 2006 Eco School program. The program was well received and correspondence has been received from the Director of Education to thank the Authority for initiating this program.

## **2007 Special Events**

The 2007 special events list is posted on the NPCA website. Several events are planned in April including annual Niagara Peninsula Hawkwatch on Good Friday, April 6. In conjunction, on this same day, Carolinian Canada will unveil Heritage Plaques recognizing the natural beauty and biological significance of "Grimsby-Winona Escarpment and Beamer Valley", and "Willoughby Clay Plain". Invitations have been extended to watershed stakeholders to attend the event. A number of initiatives for participating in Earth Day Activities are also being planned.

### **Niagara Children's Water Festival**

Plans for the 2007 Water Festival are proceeding with over 2,000 students registered and staff are currently working on following up with potential sponsors. Plans for the Public Day scheduled for Sunday, September 16 are shaping up nicely. Invitations will be extended to watershed municipalities inviting them to set up displays showcasing their environmental initiatives.

### **Watershed Report Card**

Staff has finalized the data for the 2006 Report Card which is being coordinated as a deliverable in partnership with the Niagara Water Strategy. This will be ready for distribution in April to all watershed residents.

### **Source Protection Planning**

Staff attended a workshop on the legal implications of the Clean Water Act sponsored by the Region of Niagara and continues to participate in related workshops pertaining to Source Water Protection Planning. We are preparing to make presentations over the next couple of months to our watershed municipalities, organizations and the public at large in order to bring them up to date on the current draft legislation and to begin work on committee participation.

### **Trillium Foundation**

The Ontario Trillium Foundation is celebrating its 25<sup>th</sup> Anniversary and to commemorate the event OTF is putting together a documentary highlighting some of the significant projects that have been undertaken with Trillium Funding. The NPCA in conjunction with the Wainfleet Lions Club is being featured in the documentary for our project at Morgan's Point.

### **Speaking Engagement**

Staff will be making a presentation to the Fonthill Rotary Club on April 4<sup>th</sup> to apprise them of the ongoing work being undertaken by the Authority.

## **NIAGARA PENINSULA CONSERVATION FOUNDATION**

### **Golf Tournament**

Plans are proceeding for the *2007 Bob Welch Memorial Charity Golf Classic* taking place on Tuesday, June 5<sup>th</sup> at the Whirlpool Golf Course. Registration and sponsorship packages have

been distributed to previous participants as well as a list of potential prospects and staff is continuing to work on securing sponsorship and silent auction items. Board members are encouraged to participate and assist where possible.

### **Foundation Publications**

Staff is currently working on the fifth issue of the Foundation's newsletter, '*Reflections On Conservation In Niagara*' to be distributed, along with a letter and donation card, to current donors and Friends of the Foundation.

### **Conservation Education Bursaries**

Information and applications are in the process of being forwarded to schools and former recipients for this year's round of bursaries that are supported through a partnership with the Fort Erie Conservation Women's Auxiliary. These \$1,000 bursaries assist secondary and post-secondary students from the Fort Erie and surrounding area that are planning to pursue conservation-related studies. Deadline for applications is May 18, 2007.

### **Recommendation:**

**Report No. 25-07 outlining the status of Authority projects be received for information.**

Respectfully Submitted by:

\_\_\_\_\_  
Andrew L. Burt, General Manager/Secretary-Treasurer