



NIAGARA PENINSULA CONSERVATION AUTHORITY

FULL AUTHORITY

WELLAND

AGENDA DECEMBER 15, 2010 – 7:00 p.m.

ROLL CALL

DECLARATION OF CONFLICT OF INTEREST

BUSINESS:

(1) MINUTES FULL AUTHORITY MEETING – October 20, 2010

Attached are the Minutes of the Full Authority Meeting held October 20, 2010.

(2) BUSINESS ARISING FROM MINUTES

(3) CHAIRMAN'S REMARKS

(4) CAO'S REPORT

(5) BUDGET STATUS REPORT TO NOVEMBER 30, 2010 - REPORT NO. 72-10

Attached is Report No. 72-10 regarding the budget status to November 30, 2010.

(6) NPCA STRATEGIC PLAN – PRELIMINARY WORK PLAN – REPORT NO. 73-10

Attached is Report No. 73-10 regarding this matter.

(7) LOWER WELLAND RIVER FLOODPLAIN MAPING – AWARD OF WORK – REPORT NO. 74-10

Attached is Report No. 74-10 outlining this matter.

(8) APPOINTMENTS – BALL'S FALLS HERITAGE ADVISORY COMMITTEE – REPORT NO. 75-10

Attached is Report No. 75-10 regarding this appointment.

(9) 2011 ONTARIO VOLUNTEER SERVICE AWARDS NOMINATION – REPORT NO. 76-10

Attached is Report No. 76-10 with respect to this matter.

(10) PROPOSED 2011 CONSERVATION AREA FEE SCHEDULE – REPORT NO. 77-10

Attached is Report No. 77-10 together with the proposed 2011 fee schedule.

(11) **NPCA FLEET VEHICLE ALTERNATIVES – REPORT NO. 78-10**

Attached is Report No. 78-10 outlining vehicle alternatives.

(12) **PROJECT STATUS REPORT - REPORT NO. 79-10**

Attached is Report No. 79-10 regarding the status of Authority projects including planning statistics and well decommissioning data.

(13) **OTHER BUSINESS**

(14) **IN-CAMERA**

(a) Complaint and Violation Status Report: Report No. CR-25-10

(b) Tree By-Law Status Report – Report No. CR-26-10

ADJOURNMENT



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: Budget Status Report - Report No. 72-10

Attached is the monthly budget status report for the period ending November 30, 2010. The budget revenues and expenditures are generally in line with the approved revised 2010 budget.

The significant variances include a reduced anticipated expenditure in the Land Acquisition programs. Negotiation for 2 properties have not advanced to the levels where funds will be required in 2010 and accordingly, these costs will be carried forward to 2011.

The Members will recall an application prepared by the HMT Consulting Group early in 2010 for a refund of PST paid for a number of projects (capital and current budget) undertaken by the NPCA. In this regard, the NPCA recently received approval for the claim from the Ministry of Revenue. The net proceeds of the application after a 50% fee (subject to net HST cost) to the NPCA is \$84,767. There are no conditions to the use of the funds from this application although it would be appropriate that the funds be utilized to finance projects similar and within the same program area to those identified in the rebate application. Rather than allocating funds at this late stage in the fiscal year, it is recommended that final allocations of the funds be identified once the year end financial position of the Authority is fully understood. As in other years, the preliminary financial report for 2010 to the Board will include a summary and recommendations relating to all over-expenditures and surpluses.

RECOMMENDATION:

That the Budget Status Report for the period ending November 30, 2010 be received.

Respectfully Submitted By: _____
Tony D'Amario, P. Eng. CAO/ Secretary-Treasurer



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: NPCA Strategic Plan – Preliminary Work Plan - Report No. 73-10

In previous discussion with Board members, a priority for the NPCA is the need to complete a strategic plan for the watershed. The NPCA has a broad mandate established in legislation, regulation and as watershed stewards. This diverse mandate necessitates a set of corporately supported and aligned program priorities that recognizes the needs of our watershed constituents and Federal, Provincial and Municipal partners. A strategic plan will enable the NPCA to be clear about its mandate and identify its objectives and priorities. It will assist the NPCA in analyzing existing programs and service levels and identify if and where immediate and/or future changes are required.

Attached is a preliminary work plan to undertake the Strategic Plan which was identified in the Approved Preliminary 2011 Budget. The intent of this report at this time is to introduce the project and draw on the experiences of the current NPCA Board members for input. A final work plan with appropriate revisions will be presented for approval of the new NPCA Board early in 2011. Following the final approval of the work plan, staff will request proposals from appropriate firms to undertake the components as identified.

The plan is proposed to be undertaken in 2 phases, being the preparation of a strategic plan with a follow-up process to review the delivery mechanisms. It is envisioned that the first phase will be facilitated by a third part consultant (overseen by a NPCA Committee). The second phase would be completed internally (NPCA Board Members and Staff) with external advisors where required.

RECOMMENDATION:

That Report No. 73-10 be received.

Respectfully Submitted By: _____
Tony D'Amario, P. Eng. CAO/ Secretary-Treasurer



TO: The Chairman and Members of the Authority

DATE: December 15, 2010

SUBJECT: Lower Welland River Floodplain Mapping - Award of Work - Report No. 74-10

In 2010, the Watershed Planning Specialist began working on the Lower Welland River Watershed Plan. Given the highly developed/disturbed state of the watershed and the reality that numerous studies have already been completed for this area of the watershed, the decision was made to depart from the typical format and approach used when completing a watershed plan. Alternatively, the Watershed Planning Specialist has focused on completing a review of the various reports and conclusions and is preparing a Characterization Report for this area. This approach was approved by the Board in July of this year pursuant to Report No. 47-10.

Nonetheless, the floodplain mapping for the Lower Welland River is very outdated and given the hydraulic complexity of the Lower Welland River (i.e. Niagara River Pool, flow reversal, etc.) a non-standard modeling approach is necessary for the main water body. As such, the NPCA does not have the expertise to complete the floodplain mapping component of the workplan in house.

As such in November 2010, in accordance with our Consultant Selection Policy, Requests for Proposals were issued to 3 firms known to be able to complete modeling works of this complexity. The delay in issuing proposals for a 2010 project, was due largely to the fact that Aquafor Beech Ltd, the Consulting firm completing work on the balance of the upper portion of the watershed, is behind schedule.

The proposal received ranged in cost from \$66,835.00 to \$ 76,900.00 (taxes excluded). Proposals received were reviewed by appropriate staff and the low bid proposal which was submitted by AMEC's Burlington Branch (formerly Phillips Consultants Limited), was found to address the needs of the project. Both Phillips and AMEC has successfully completed past works for the Authority.

With respect to financing, \$ 86,600 was allocated in the 2010 budget for consulting work and as such, the proposal can be accommodated with a healthy budget remaining for contingency items. Given the time of year, obviously completion of the bulk of the work will not occur until 2011.

Attachments:

1. Terms of Reference for Project

RECOMMENDATION:

i)That Report No. 74-10 regarding the Lower Welland River Floodplain Mapping Project be, received for information.

ii) That the Board support execution of the Consulting Services Agreement with AMEC Limited with an upset limit of \$ 66,835.00

Prepared by: John Kukalis, Director, Water Management

Respectfully Submitted By: _____
Tony D'Amario, P. Eng.
Chief Administrative Officer/Secretary-Treasurer

Lower Welland River Watershed Plan Floodplain Mapping Update Terms of Reference (November 2010)

Scope of the Study

As part of the Watershed Planning Program the Niagara Peninsula Conservation Authority would like to update and create new floodplain mapping for the Lower Welland River Watershed. This study will undertake the necessary hydrologic and hydraulic analysis in order to generate 100 year return period floodlines for the Welland River (from the vicinity of the New Siphon in the City of Welland to the outlet at the Queenston Power Canal) and Thompson's Creek (as indicated on the attached map). Confirm that the regulatory flood elevation in the Welland River (from the Niagara River to the Queenston Power Canal) is governed by the OPG Operations at the International Control structure and the Grassy Island Pool. All components of this analysis shall be consistent with the Ministry of Natural Resources and the Flood Damage Reduction Program requirements.

The new floodplain mapping report shall identify roadways which are susceptible to flooding (ie. overtopping) due to capacity limitations of the associated culvert/bridge structures and the identification of flood-susceptible buildings. The report shall also include recommendations to mitigate the identified flood hazards which may include: floodproofing, culvert/bridge replacement, or channel capacity improvements. The estimated costs to mitigate the flood-susceptibility of identified roads and buildings shall also be included.

Deliverables

Report

The successful consultant shall submit eight (8) hard copies and a digital .pdf copy of the entire final floodplain mapping report complete with all associated maps, diagrams, calculations, and culvert/bridge crossing inventory. All files (both paper and digital) of the associated hydrologic and hydraulic computer models shall be provided to the NPCA.

Mapping

This study will deliver 1:2,000 mapping (both paper and digital) in the formats approved by the NPCA. A Digital Terrain Model (DTM) and digital orthoimagery are available from the NPCA for use in this study as the topographic base.

All spatial data produced during the study will be captured at 1:2000 scales or larger and be delivered to the NPCA in ESRI shapefile format (no CAD drawings accepted). Metadata using the Region of Niagara Metadata Standard will be generated along with supplemental data dictionaries for each shapefile to be delivered. Maps composed for the study should be provided in suitable resolution .pdfs for reproduction purposes.

Timing

The project is targeted to be completed within 8 months of project initiation.

Meetings

The schedule shall include meetings of the consultant team and the NPCA at the following stages:

- 1) Project initiation;
- 2) At the 60% completion stage in order provide an update on project status and to discuss any issues with respect to the hydrologic and hydraulic modeling calibration and validation;
- 3) After the NPCA has reviewed the draft floodplain report and mapping in order to discuss comments;
- 4) At the completion of the project in order to summarize relevant issues, identify significant damage centres, and discuss the study's conclusions and recommendations.

Available Resources

For this study, the following resources are available to the study team:

- 1) A Digital Terrain Model (DTM) of the study area;
- 2) Digital orthoimagery of the study area;
- 3) Digital information with respect to soils, land use, and land cover of the study area;
- 4) Three (3) long-term Welland River surface water gauge stations located within the study area;
- 5) Long term meteorological from climate stations in and around the study area;
- 6) Historic computer models and reports for the Welland River (including bathymetry), Central Welland River Floodplain Mapping DRAFT Report (October 2010) and Thompsons Creek (April 1998).

Available Digital Resource Specifications

Niagara 2002 Ortho-based DTM Details:

Compiled by First Base Solutions, a Division of J.D. Barnes Limited in 2002.

RFP stated the DTM was to be developed generally "for pre-engineering survey and design, the production of municipal planimetric mapping and detailed topographic mapping at a minimum scale of 1:2000 with a contour interval of no less than one metre (1.0 m)."

Mass Points

Average Spacing (X-plane): 10m

Average Spacing (Y-plane): 10m

Horizontal Control: 0.5m if not better

Vertical Control: 0.5m if not better

3D Breaklines

Select linear point density supplementing the mass points to support the production of municipal planimetric mapping and detailed topographic mapping at a minimum scale of 1:2000 with a contour interval of no less than 1m.

Horizontal Control: 0.5m if not better

Vertical Control: 0.5m if not better

Vertical Datum Details: Canadian Geodetic Vertical Datum of 1928 (CGVD28)

Horizontal Datum is NAD 1983 UTM Zone 17T

Niagara Aerial Photography Details:

Two orthoimagery datasets will be made available for the study

1. Black and White 2006 orthoimagery.
Photography Scale: 1:10,000
Captured using the Vexcel Ultracam Digital Mapping Camera with a ground pixel resolution of 10cm.
Horizontal Datum is NAD 1983 UTM Zone 17T
Compiled by First Base Solutions, a Division of J.D. Barnes Limited 2006.
2. Colour 2002 orthoimagery
Photography Scale: 1:10,000
Film scanned in at 20 microns so resulting digital pixel resolution is 20cm.
Horizontal Datum is NAD 1983 UTM Zone 17T
Compiled by First Base Solutions, a Division of J.D. Barnes Limited 2002.

Niagara Region Metadata Standard:

(http://metadata.yourniagara.ca/metadata/GeoSmart_Niagara_Metadata_Standard_May2006.pdf),

Deliverable Data Product Specifications

1, Digital Spatial Data Products

- Regulatory Flood Line segmented by and populated with map sheet number
- Cross Section Inventory populated with regulatory stage and map sheet number
- Bridge/Culvert Hydraulic Control Structure Inventory populated with model parameters
- Hydraulic Model Stream Reaches populated with model parameters
- Hydraulic Model Flowpaths populated with model parameters
- Hydraulic Model Banks populated with model parameters
- Hydrology Model Subbasins populated with model parameters
- Hydrology Model Streams/Reaches populated with model parameters
- Mapping product tile/sheet index

2. Digital Hydrology and Hydraulic Model Files

- All model input files including meteorological data
- All physical model files
- All model output files

3. Digital Mapping Products

- 24x36 600 dpi PDFs of final hardcopy mapping products
- 11x17 600 dpi PDFs of final hardcopy mapping products



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: Appointments – Ball’s Falls Heritage Advisory Committee – Report No. 75-10

Ball’s Falls Heritage Advisory Committee member, Mike Hunter completes his 3 year appointment on December 31, 2010. Mr. Hunter is currently serving as Committee chairman and has indicated that he would like to continue to participate on the Committee.

The Committee Terms of Reference provide for a membership extension at the discretion of Full Authority. Mr. Hunter has served on the Committee since 2002. He is very knowledgeable of the site and continues to work with the Committee toward achieving the implementation of the master plan recommendations. Mike is a valuable resource for the advisory committee and the Conservation Authority. Accordingly, staff recommend that Mike Hunter be appointed to the Ball’s Falls Heritage Advisory Committee for a 3 year term effective January 1, 2011 to December 31, 2013.

RECOMMENDATION:

That Mike Hunter be appointed to the Ball’s Falls Heritage Advisory Committee for a 3 year term effective January 1, 2011 – December 31, 2013.

Prepared by: Christine Hayward, Site Administrator, Ball’s Falls Conservation Area

Respectfully Submitted by: _____
Tony D’Amario, CAO/Secretary-Treasurer



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: 2011 Ontario Volunteer Service Awards Nomination – Report No. 76-10

The Conservation Authority has participated in the provincial volunteer recognition program since its inception to recognize dedicated volunteers who have consistently made a significant contribution to the heritage programming at Ball's Falls.

The Ontario Volunteer Service Awards recognizes volunteers for their continuous years of commitment and dedicated service to a community group. Eligibility is characterized by the following criteria:

- Volunteer time given on an on-going and active basis to the same group for which no payment has been received
- Membership alone is not a qualification for recognition
- Services performed during the normal course of professional or business duties are not eligible for recognition

Youth volunteers (under the age of 24) are recognized for two or more years of continuous service, while adults are recognized for 5, 10, 15, 20,25,30,40 plus and 50 plus years of continuous service.

This year the following individuals will be nominated to receive milestone awards.

Recipient	Residency	Award
Marion Holman	Fenwick	30 Years
Jackie Morgan	Fenwick	20 Years
Marg Gierula	Beamsville	5 Years
Diane Hockey	St. Catharines	5 Years
Lorraine Westhouse	St. Catharines	5 Years
Alan Large	St. Catharines	5 Years
Barb Large	St. Catharines	5 Years

The ceremonies usually take place across Ontario in spring.

RECOMMENDATION:

That Report No. 76-10 regarding the 2011 Ontario Volunteer Service Awards nominations be approved; and

That the above individuals receive a letter of thanks from the Authority in recognition of

their dedicated volunteer commitment to the NPCA.

Prepared by: Christine Hayward, Site Administrator

Respectfully Submitted by: _____
Tony D'Amario, CAO/Secretary-Treasurer



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: Proposed 2011 Conservation Area Fee Schedule – Report No. 77-10

Each year staff from the Niagara Peninsula Conservation Authority conduct a survey of fees at campgrounds and rental facilities across the watershed to get a detailed perspective of the local marketplace. In July 2010, the Harmonized Sales Tax (HST) was implemented, resulting in higher costs for most NPCA services such as camping and rental facilities. Day use admission and membership passes, which include taxes, did not change in July. The end result was a reduction in these revenues. The shortfall was offset by increased tax rebates and reduced operational costs.

The proposed 2011 fee schedule aims to maintain the NPCA's strong position in the marketplace, while delivering top value to our customers. A draft copy of the Schedule has been attached to this report. HST will be added to all figures shown, unless otherwise stated.

Membership Pass

The membership pass has been at \$70.00 (including taxes) for the past two years. The pass has been well received, especially at Binbrook where day use makes up the majority of business. In 2011, Staff recommend increasing the cost of a membership to \$70.00 (plus HST), a net increase of 13%. The new fee will still provide substantial savings, especially when paired with membership discounts and incentives. The following 2010 membership fees are presented for comparison:

Hamilton Conservation Authority - \$95
Halton Region Conservation Authority - \$115
Grand River Conservation Authority - \$105

Day Use Fees

Staff recommend increasing the day use fee across the board to recover revenues lost through the implementation of the HST. The proposed increase is between 4.5% and 6%.

Camping Fees

The camping market continued to decline in 2010. Many attribute this to slow economic recovery and implementation of the HST. A detailed chart showing the rates and comparisons is attached for reference. Unfortunately the NPCA is one of the first agencies to set rates for the new year. As such, the chart uses 2010 rates of other campgrounds for comparison.

Staff are not recommending changes to our camping fees. Since this will be the first full year of the HST, the cost of seasonal campsites will automatically experience an increase between \$140 and \$154 over last year, without any change to the fees. At present, most of our campground rates are in the middle to high side of the marketplace. Staff are concerned that

fee increases could result in the NPCA receiving a smaller portion of a slumping camping market. The only opportunity for increases is in the non-serviced campsites. Our 2010 rates were the lowest of those surveyed. Staff recommend increasing the base rate from \$29 per night to \$30 per night.

If camping rates are maintained, the NPCA will need to increase revenues in other areas. In order to offset operational costs in 2011, staff will be working on improved marketing of our campgrounds, modified operations and additional revenue opportunities such as enhanced retail and special events. We expect that these measures will result in better attendance by local residents, more diverse revenues and an increased share of the traveling public.

Ball's Falls

The facilities at Ball's Falls continue to be in high demand, with some facilities being booked several years in advance. Staff believe this market can be expanded and customer service improved if we are able to provide fee schedules for two years. This will give patrons some comfort in finalizing their rental decision and allow staff to complete the necessary contracts without delay. As such, fees are being proposed for 2011 and 2012.

The Centre for Conservation and barn fees are compared to community halls, service club facilities and wineries. The fees for Ball's Falls are at the high end of the wedding/event marketplace in Niagara. The only exceptions are the rates for the barn, which are at the low end of the scale.

For 2011, staff believe a modest increase of 5% will maintain our position in the marketplace for most services. A 7.5% increase is proposed for the barn rental fee and associated packages to bring into closer range with similar facilities at local wineries.

In 2012, staff recommend applying a 5% increase to all rates. This will allow events to be booked throughout 2011. If, at the end of the year, we find there is a need to increase the 2012 fees, the revised rates will be applied to all new reservations occurring after the fee schedule is approved.

Hunting Permits

The 2011 hunting permit fee was addressed through a separate report at the November 17, 2010 meeting of the Full Authority. The fee will remain at \$25 for 2011.

RECOMMENDATION:

That Report No. 77-10 regarding the 2011 Conservation Areas Fee Schedule be approved;

Prepared by: Darcy Baker, Director-Land Management

Respectfully Submitted by: _____
Tony D'Amario, CAO/Secretary-Treasurer



TO: The Chairman and Members of the Authority

DATE: December 8, 2010

SUBJECT: NPCA Fleet Vehicle Alternatives – Report No. 78-10

Staff were asked to prepare a report on the Authority's Fleet Management and efforts being taken to reduce the operational footprint on the environment. The following information is offered for consideration.

The NPCA fleet can be divided into three primary categories:

1) Maintenance Vehicles

This category includes specialized equipment used in construction and maintenance at our Conservation Areas. Tractors, mowers and utility vehicles make up the majority of units in this category.

2) Land Management Operations

This division has six pick-up trucks, a dump truck and several lease vehicles during the summer. These are the work-horses of the fleet, required to fulfill a variety of jobs across the watershed. Full-sized pick-ups are the primary vehicle used, selected for the flexibility of transporting staff and materials.

These vehicles operate out of our Central Workshop at Gainsborough, and our four revenue-producing Conservation Areas.

3) Office Vehicles

Office vehicles can be further divided into field vehicles and personal transportation. Field vehicles need to be capable of travel over rough terrain such as construction sites or unpaved roads. Pick-up trucks were preferred for this task because of the high ground clearance and capability to carry cargo. Since these vehicles were not carrying heavy loads or towing equipment, smaller pick-up trucks have been the vehicle of choice. They are more fuel efficient than the larger trucks and easier to maneuver in the field. Personal transportation vehicles are used by staff when attending meetings or going out on site inspections. Small cars or vans have been selected in the past to provide these services.

Fleet Efficiency

The efficiency of a vehicle fleet can be improved through the acquisition of new equipment or through the management/operations of the fleet.

The maintenance vehicle fleet is one of the easier areas to improve efficiencies and reduce greenhouse gases. Authority staff monitor the marketplace and speak with partner agencies to stay on top of "green" options when it comes to purchasing and operating maintenance equipment. Some of the positive steps taken by the NPCA include a shift from gasoline

powered utility vehicles in our campgrounds to zero-emission electric vehicles. Alternative fuel options, such as biodiesel have been investigated, however these steps can impact the warranty for new equipment. The other challenge has been locating a dependable, commercial source of fuel.

The full size pick-up truck market is one area that continues to struggle. When considering equipment purchase, staff have always factored in the overall operating cost and fuel efficiency of vehicles. Five years ago, the pick-up specifications were modified to include 6-cyl engines, provided they produced the horsepower necessary to tow equipment. As for “green” vehicles, there are a limited number of options in this category. General Motors has produced a hybrid pick-up truck, however the Canadian marketplace only offers a crew-cab with short pick-up bed, severely limiting the cargo capacity. This model has not performed as well as the marketplace anticipated. The highway fuel efficiency and greenhouse gas emissions are marginally better than those of a standard pick-up truck. Another strike against the hybrid is a MSRP of \$49,000, or roughly twice the cost of a standard pick-up truck. Alternative fuel options are being investigated by staff including propane, natural gas and ethanol. Each of these has their own challenges, including access to a convenient, reliable supply. This prevents them from becoming preferred options at this time.

The vehicle group with the greatest potential for green vehicle applications is personal transportation. The marketplace has a good selection of hybrid cars and smaller fuel efficient vehicles. Staff will be considering all these options as the current fleet of personal transportation vehicles begin to come up for replacement in mid-2011.

Another method of improving fleet efficiency is to implement changes in the overall operations by reducing the need for vehicles or shifting vehicle use to more efficient modes of transportation. A good example of this approach is a change in the way that some of our campground maintenance activities are conducted. In 2010, bicycles were added to the campground equipment fleet. In the past, staff were driving pick-up trucks or utility vehicles around the campground to speak with patrons or do routine maintenance. Now staff are encouraged to take a bicycle, significantly reducing the amount of vehicle use.

Staff will continue to look for opportunities to improve the efficiency of our maintenance fleet. This includes shopping for the most efficient equipment and evaluating alternative fuel sources. Where possible, every step will be taken to ensure that the contribution to greenhouse gases are reduced. We are also looking into green certification programs for commercial fleets which include external auditing and a ratings system.

2010 Proposed Vehicle Acquisition

Staff are proposing to acquire one full-size pick-up truck for Land Management Operations and one small pick-up truck to be used as a field vehicle, stationed at the Main Office. Prior to the November Board Meeting, quotations were requested from 10 (ten) area dealers for one full-size pick-up and one small pick-up truck. Three dealerships provided prices, and have agreed to let them stand.

	Model	Price	Taxes	Total
Brock Ford	2010 Ford Ranger	16,787.00	295.45	17,082.45
	2011 Ford Ranger	17,026.00	299.66	17,325.66
	2011 Ford F150	23,109.00	406.72	23,515.72

Niagara Motors	2010 GMC Canyon	16,900.00	297.44	17,197.44
	2011 GMC Sierra	17,500.00	308.00	17,808.00

Performance Chrysler	2011 Ram 1500	17,894.00	314.93	18,208.93
	2011 Dakota	18,444.00	324.61	18,768.61

The 2010 Ford Ranger received the *ecoEnergy for Vehicles Award* from Natural Resources Canada as the most fuel efficient pick-up truck. The 2011 Ford F150 produces 1,100 kg more CO₂ emissions per year than the lower priced GMC Sierra.

Based on the above, staff recommend purchasing a 2010 Ford Ranger from Brock Ford for a price of \$16,787 (plus taxes) and purchasing a 2011 GMC Sierra from Niagara Motors for a price of \$17,500 (plus taxes). The combined purchase price of \$34,890 exceeds the \$30,000 allocated for vehicle purchase in the 2010 budget. The shortfall will be covered through savings of \$14,000 in the equipment purchase budget and reduced lease payments for the office fleet.

RECOMMENDATION:

That the Conservation Authority approve the quotation, dated November 17, 2010, received from Brock Ford, to supply one (1) 2010 Ford Ranger pick-up truck for the price of \$16, 787 (plus taxes); and,

That the Conservation Authority approve the quotation dated November 17, 2010, received from Niagara Motors, to supply one (1) 2011 GMC Sierra pick-up truck for the price of \$17,500 (plus taxes),

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

Respectfully Submitted by: _____
Tony D'Amario, CAO/Secretary-Treasurer



TO: Chairman and Members of the Authority

DATE: December 15, 2010

RE: PROJECT STATUS REPORT - REPORT NO. 79-10

WATER MANAGEMENT

I. Watershed Regulation Division

1) Monitoring

Staff continue to monitor the water levels at the Binbrook reservoir on a regular basis and adjust the valve settings as required based on forecast weather. Staff also continue to monitor the water levels at our 13 gauge stations on a daily basis as part of the NPCA's routine flood forecasting/warning duties. The public is able to access this real-time information through the NPCA's website.

2) Binbrook Reservoir

In November staff requested quotes from four(4) construction firms for the completion of erosion control works on an island at the north western end of the reservoir. Our budget amount for the construction work is \$ 65,000. Of the four firms only two submitted quotes and the amounts were both in the \$ 170,000 range.

This can not be accommodated in the budget. Staff believes that part of this cost can be attributed to the brisk activity in the heavy civil construction sector, due to the extended Federal Infrastructure Stimulus start deadline of March 2011. Nonetheless, staff would recommend re-examining the proposed design and construction staging in an effort to reduce costs (e.g. provisional items, etc.) with a view to completing this project in 2011..

3) NPCA 'Regulation of Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses'

i) Permits

The NPCA has approved 90 permit applications for the 2010 calendar year pursuant to the NPCA's 'Regulation of Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses' regulation (Ontario Regulation 155/06). NPCA staff note that to date, this is the largest number of permit applications processed in a calendar year.

ii) Violations

Please refer to the associated Report under "in camera" section of agenda.

iii) NPCA-DFO Partnership Agreement

The NPCA is under agreement with the Department of Fisheries and Oceans (DFO) to review works in or near water to determine whether the work is likely to result in the harmful alteration, disruption or destruction of fish habitat (HADD). As part of the NPCA-DFO Partnership Agreement, NPCA staff work as a liaison between DFO Assessors and proponents to

recommend appropriate fish habitat compensation projects. During the current calendar year NPCA staff has reviewed 71 applications under this agreement.

iv) Municipal Drain Maintenance Review

The NPCA continues to represent Conservation Authorities located in Central Ontario. on the DART Committee with representatives of the Ontario Federation of Agriculture, Drainage Superintendents Association of Ontario, Ontario Society of Professional Engineers(Land Drainage Committee), Association of Municipalities of Ontario – Rural Caucus, OMAFRA, MNR and Conservation Ontario. The purpose of the DART is to develop a consistent approach and technical direction with regard to municipal drainage project review under Conservation Authority Regulations. NPCA staff has reviewed 25 municipal drain projects during the current calendar year.

4) Floodplain Mapping

i) Wignall Drain – City of Port Colborne

The NPCA is presently undertaking the necessary calculations, field work, and map analysis to accurately determine the extent of the 100 year flood elevations for the Wignall Drain located in the City of Port Colborne.

ii) Beaver Dam Drain – City of Port Colborne

The NPCA is presently undertaking the necessary calculations, field work, and map analysis to accurately determine the extent of the 100 year flood elevations for the Beaver Dam Drain located in the City of Port Colborne.

iii) Point Abino Drain – Town of Fort Erie

The NPCA is presently undertaking the necessary calculations, field work, and map analysis to accurately determine the extent of the 100 year flood elevations for the Point Abino Drain located in the Town of Fort Erie.

II. Watershed Planning Division

1) Municipal and Development Plan Input and Review

Staff continue to respond to a steady stream of planning and building permit applications. A significant amount of work continues on the review of locally adopted Official Plans (e.g. Welland, St. Catharines and West Lincoln) that are currently before the Region of Niagara for approval.

2) Watershed Plan Preparation

a) Lake Erie North Shore Watershed Plan

The Lake Erie North Shore Watershed Plan has been completed. This Watershed Plan will be submitted to the NPCA Board of Directors for approval in the new year.

b) Central Welland River Watershed Plan

The commenting period for this Watershed Plan has ended and the final Steering Committee meeting to go over any questions, comments or concerns the Steering Committee may have regarding the final document was held on November 17th. Edits and updates to incorporate comments received from staff and the Steering Committee is complete.

The Central Welland River Geomorphic Report is complete and has been distributed to respective NPCA departments.

This Central Welland River Watershed Plan is complete and has been submitted to the NPCA Board of Directors for approval at December's meeting.

c) Beaverdams and Shriners Creek Watershed Plan

The Final Phase One: Watershed Characterization and Issues Identification Report is complete and has been posted on the NPCA website. Final updates to the Phase One Report will take place in spring before the Watershed Planning program is terminated. Due to time restraints there will not be a Phase Two: Restoration Strategy for this study area.

The Draft report of the Geomorphic Study in this study area has been submitted to the Watershed Planning Specialist for review. The Draft report outlines recommended actions for public and private lands. In total 18 field sites were visited; Shriners Creek (8 sites), Beaverdams Creek (4 sites), Welland Canal North (6 sites), and Thompson Creek (2 sites: not in study area)

A Visual Assessment Chart and study area mapping have also been submitted for review.

d) Upper Welland River Watershed Plan

The Final Phase One: Watershed Characterization and Issues Identification Report is complete and has been posted on the NPCA website. Research and writing of Phase Two: Restoration Strategy will be initiated early 2011.

e) Lower Welland River Watershed Plan

Research and writing of the Lower Welland River Characterization Report has been temporarily suspended to focus on the completion of the Central Welland River Watershed Plan.

3) Natural Areas Inventory/Heritage System

The third meeting of the Scenario Development Team took place on November 25th. This group of stakeholders from across the watershed is responsible for identifying constraints to the natural heritage system, and setting targets for what will be included in the system.

Staff gave a presentation on the project to the Niagara Area Planning Directors on November 26th. A presentation was also given to the Niagara Homebuilders Association on December 1st.

III. Source Water Protection Division

1) Source Water Protection Plan

Source protection staff continue to work on materials for the Source Protection Plan (SPP), with assistance from Niagara Region, and key SPC members. NPCA is also participating on a number of provincial working groups that are developing guidance materials for the Source Protection Plan program.

Staff continue to work on the Updated Assessment Report and have contracted a consultant to undertake contaminant flow modelling as part of the IPZ-3 event based modelling that will be included in the Updated Assessment Report. The IPZ-3 work will focus on possible spill scenarios along the Welland Canal. NPCA is still waiting for MOE to finish reviewing our

Proposed Assessment Report. Work is also on-going on Transportation Threats. Staff are also facilitating Certificate of Approval public data requests that must consider vulnerable areas.

To-date, MOE has only reviewed and approved three of the thirty-five or more Proposed Assessment Reports that were submitted. Work is also continuing with the MOE's Assessment Report Data Base (ARDB) project. Staff participated in two climate change workshops sponsored by MOE Source Protection Branch, and Brock University/Niagara Region.

2) Water Quality Monitoring Program:

a) Routine Water Quality Work

Routine surface water quality and spot-flow monitoring was completed in November ending the 2010 field season. The NPCA continues to collect groundwater level data at 15 monitoring wells as part of the Provincial Groundwater Monitoring Network (PGMN). Water quality sampling at 12 PGMN wells were collected in November and 1 well is scheduled to be sampled in December.

Biological monitoring using benthic macroinvertebrate have been completed for the Hamilton Airport and the Glanbrook Landfill is scheduled to be completed in early December.

3) Special Projects

Field work for the Welland River Eutrophication Study is now complete for 2010. Watershed monitoring staff are currently working on the Final Report which is due for completion in March 2011.

NPCA Water Well Decommissioning Grant Program: Requests for application continue to be received for this program.

St. David's Well Decommissioning: NPCA staff continue to provide technical expertise and assistance to Niagara Region Public Works for abandoning the former St. David's municipal well field and reservoirs. The project is expected to continue into 2011.

Hydrogeology meetings/reviews completed in the last month include:

- 2 private servicing study reviews for Watershed Planning.
- Niagara Region Integrated Community Planning Water Policies Updates.
- Central Welland River Watershed Plan.
- Niagara College and Brock University Intern Rural Water Use projects.
- 1 development application adjacent a provincially significant wetland; and
- Regulation 153 discussions with Niagara Region Public Works Planning - potable conditions and areas of natural significance.

IV. Geographic Information Systems (GIS) Division

1) Source Water Protection Support Activities

- The threats inventory load into the prescribed Assessment Report Database (ARDB) task has been completed for both the surface water and groundwater vulnerable areas.
- As a result NPCA is the first Source Protection Region in the province to be in full compliance with MOE the for data deliverables prescribed thus far to be submitted back to the province through the ARDB upon Assessment Report approval.

2) Watershed Planning Support Activities

- The Haldimand evaluated wetlands from MNR are currently being integrated back into the NAI ELC Community Series fabric through a final QA/QC process pass of the municipality.
- The GIS services firm performing the NAI ELC Community fabric interpretation for the Authority's watershed within the City of Hamilton has delivered and the mapping is being integrated back into the NAI ELC Community Series fabric through another QA/QC process.
- The Authority's plan review and regulations screening mapping continues to go through edits based on recently updated hazard inventories.

3) Corporate GIS and Information Management Support Activities

- Region of Niagara GIS Services staff are working on the final technical tasks for the NPCA Niagara Atlas internal web mapping application..
- The final technical tasks for the external NPCA web mapping Niagara Navigator application for the public are currently being completed by Authority and Region of Niagara GeoSmart staff while the disclaimers and other liabilities waivers are being cleared through the Region's Legal Services group.
- The Authority's 'HydroServer' went live last month with the publication of the portal website at <http://www.his.npca.ca/hydroserver/> despite still working on improvements to some of the service abstracts and other descriptors. This information architecture will function as infrastructure for the publication, discovery and access off the Authority's water data (quality and quantity observations and mapping) through 'web services' and will complement the existing real time monitoring network data access currently online in the corporate website.
- The SWOOP 2010 Partnership agreement that was recently amended by MNR should finally be available this week to execute. Once signed the orthoimagery and other deliverables for the Niagara Region and City of Hamilton should become available shortly thereafter, with the County of Haldimand to follow in the spring of 2011.
- Staff have collaborated with the Region and the Guelph district Ministry of Natural Resources with regards to identifying and recommending a subset of watercourses from the Authority's large scale surface water inventory for use by the Town of Niagara-on-the-Lake as key hydrologic features in its zoning by-law mapping as opposed to using traditional Ontario Base Mapping which is out of date and spatially inaccurate.

V. Watershed Restoration Division

In total, over 100 restoration projects have been completed this year across all watershed planning areas. For every restoration project completed on private property, two additional properties (landowners) were visited in order to provide technical advice, guidance and landowner support. For every NPCA restoration program dollar spent an additional 5 dollars of matching contribution has been provided through partnerships including private landowners for the implementation of the following water quality and habitat biodiversity projects across our watershed.

1) General Restoration

- Staff have completed the woodland reforestation and riparian planting projects. In total 32 woodland restoration / riparian projects were implemented across the watershed through partnerships with private landowners, Land Care Niagara (funding provided through Trees Ontario Foundation and 50 Million Tree Program), Ontario Power Generation (bio-diversity

and carbon sequestering funding) and the Niagara Restoration Council. Well over 100,000 trees and shrubs were planted. Over 20,000 wildflowers and grass plugs were planted and over 30 kilograms of native seed was seeded into restoration sites.

- Construction projects such as wetland restoration, aquatic in-stream works, erosion and bank stabilization projects are currently being implemented. Over 25 wetland and riparian projects across the watershed have been completed this year with contributions from Ducks Unlimited, Great Lakes Sustainability Fund, Species at Risk Farm Stewardship Program, Niagara Community Foundation, Canadian Tire, St. Catharine's Green Committee, and TD friends of the Environment.
- Best Management Practice (BMP) projects such as nutrient management projects, livestock fencing, cover crops and erosion control projects such as rock chutes and check point dams are currently being implemented. In total over 40 BMP projects have been implemented across the watershed with contributions from Great Lakes Sustainability Fund, Environmental Farm Plan and Species at Risk Farm Stewardship Program.
- Ten project interpretative signs have been produced and installed at key project sites across the watershed to provide education and awareness about the work of the NPCA relating to water quality and habitat biodiversity improvement.
- The 2nd annual Landowner 'How to' Stewardship Workshop was a great success. This year it was a full day venue held on Tuesday July 20th, with the morning at the Balls Falls Centre for Conservation and the afternoon spent touring 3 restoration project sites including the E.C. Brown Wetland Site. The charge was \$75.00 to recover the costs of materials and supplies. In total 61 participants attended.

2) Welland River Restoration

The following are the program accomplishments from the 2010 implementation year:

- Three riparian restoration projects covering 1km of stream length throughout the watershed were completed and included the establishment of riparian buffers with widths varying from 5-70m.
 1. A 200m shoreline stabilization and habitat restoration project along the Welland River just downstream of the canal was continued in 2010.
 2. The installation of removable Aquamats to reduce wake erosion and allow for cattail establishment will be followed up with the installation of Bio-D blocks (sturdy coconut fibre logs), bioengineering and planting in 2011 to reduce erosion and provide improved habitat in this stretch.
 3. The restoration of a pool within Draper's Creek (Maple Park) to reduce effects of erosion on water quality and aquatic habitat was also completed this fall.
- Five upland restoration and reforestation projects totaling over 16 acres were completed in 2010. Over 15,000 native trees and shrubs were planted on these sites to improve connectivity between valuable habitat areas as well as to increase overall species diversity. With the superb spring planting conditions, survival assessment results have been excellent so far.
- A 7 acre pit and mound restoration project was completed on a farm in the Unnamed Creek sub-watershed between Parkers and Sucker Creek. The project included the establishment of pits and mounds, seeding of native wildflowers and grasses and planting of over 2500 trees and shrubs and 1000 nuts.
- In partnership with Landcare Niagara, Ontario Power Generation and watershed landowners, the NPCA participated in the planting of 35,000 native trees and over 10,000 nuts covering 47 acres on 7 project sites across the watershed.

- Staff has continued the wetland restoration partnership with Ducks Unlimited Canada within the Welland River watershed. We are currently in the process of completing the restoration of a 2 acre wetland in the Coyle Creek sub-watershed. The analysis of the 2009 flight (staff were included in flying the watershed with Ducks Unlimited) identified at least 50 possible restoration sites within the upper Welland River watershed. Staff have been working with several interested landowners on possible wetland projects for the 2011 project year.
- A conservation tillage project was funded within the central Welland River watershed. This will cover two separate properties that include Type 2 fish habitat creeks and converted over 400 acres of farmland from conventional tillage to conservation tillage. Conservation tillage helps to reduce soil erosion and improve water quality by allowing surface water to collect and infiltrate, thereby reducing sedimentation. This method also reduces negative impact to nesting birds and other wildlife.
- Three windbreak Conservation Farm Practices projects were completed in 2010. These windbreaks covered over 1km with at least 800 trees planted to improve water quality through the reduction of soil erosion. The plantings also served to improve habitat linkages.
- BMP projects in 2009 involved the construction of a lagoon manure storage system to help reduce run-off in the upper Welland River.
- The NPCA in partnership with the Department of Fisheries and Oceans and Smart Centre is undertaking a wetland restoration / compensation project on Chanter Rd in the Coyle Creek watershed. The purpose of this wetland is to provide fisheries compensation as part of the mitigation for the Smart Centre development. This wetland project is a significant undertaking and will provide up to 8 acres of additional wetland habitat in the Welland River and the Niagara River Area of Concern (AOC).

Staff are researching opportunities to work with landowners who live adjacent to the Welland River between the Old Welland Canal Siphon and HWY 24. The goal is to locate riparian wetland restoration opportunities in this location as it is the most affected by water level and flow reversal issues. These projects will advance our commitments under our OPG agreement.

Site visits with interested Welland River watershed landowners will continue as staff discusses a wide range of project possibilities for the 2011 program year.

3) Fort Erie Creeks Watershed Restoration

The Fort Erie Creeks Watershed Plan has been received by restoration staff for implementation. Staff are reviewing the recommendations and the Implementation Committee will meet in January of 2011. Staff are working on communication within the watershed with landowners and community groups in order to promote project interest. The following are some of the implementation highlights from the 2010 program year:

- In partnership with Ontario Power Generation and Landcare Niagara, the NPCA was involved with two upland reforestation projects. Both sites were within the Black Creek watershed and totaled 12 acres, with over 14,000 seedlings and nuts planted.
- A small riparian buffer project was completed in Black Creek and included the planting of over 400 native wildflowers and grasses, as well as the installation of live willow and dogwood stakes to reduce erosion. This project was well received and is in a high profile area which will hopefully lead to future projects in this stretch of the creek.

Site visits with interested watershed landowners will continue as staff discusses a wide range of project possibilities for the 2011 program year.

4) Twenty Mile Creek Watershed Restoration

The following are the program accomplishments from the 2010 implementation year:

- A nutrient management project in the form of a manure storage facility was completed in Spring Creek in Lincoln. This project allows the producer to better manage manure from his large quail operation thus eliminating a potential threat to a small Spring Creek tributary.
- A total of 14 acres of land were planted for woodland habitat restoration in 2010 with over 10,500 trees planted at three project sites.
- Two 1 acre wetland projects were completed in West Lincoln and Hamilton. Both respective landowners contributed significant financial resources above the NPCA grant ceiling to complete these large, high profile projects.
- 600 meters of riparian area were planted in West Lincoln. An additional 10 acres on this property are scheduled to be planted in 2011.
- In Spring Creek in Lincoln, 500 meters of riparian area were also planted.
- One culvert stream crossing was installed to facilitate landowner maintenance of a woodland restoration project.
- Invasive species removal continued at a site in the headwaters in Hamilton to control the spread of Phragmites (Common Reed). Hand pulling, herbicide and seed-head removal methods were employed.

Further highlights within Twenty Mile Creek include:

- **Hamilton ReLeaf Network** initiated the Hamilton Natural Heritage Planning this year using the "MARXAN" modeling system. The Scenario Development Team began meeting in April with stakeholders including: Hamilton-Wentworth Stewardship Council, Hamilton, Halton, Grand River and Niagara Peninsula Conservation Authorities, Ontario Federation of Agriculture, City of Hamilton, RBG, Earth Day Hamilton, Hamilton Naturalists, and Hamilton Industrial Environmental Association, Six Nations and the Bruce Trail Association. Scenario planning is scheduled to be completed by June 2011.

Site visits with interested watershed landowners will continue as staff discusses a wide range of project possibilities for the 2011 program year.

5) Fifteen, Sixteen, Eighteen Mile Creeks Restoration

The following are the program accomplishments from the 2010 implementation year:

- A total of 11 acres of land were planted for woodland habitat restoration in 2010 with over 1200 trees and shrubs at two project sites in 15 mile creek.
- 5 wetland restoration projects at five project sites were excavated in 2010. Each wetland was at least a half acre in size. As part of the wetland restoration projects more than 1500 trees, shrubs and wildflowers were planted. 2 of the 5 sites will see continued restoration efforts in the spring of 2011.
- 455 meters of windbreak was planted with more than 500 trees in Jordan. This helped to create a wildlife corridor as well as reduce topsoil losses from adjacent farm fields. A total of 1.8 acres were restored.

- 450 ft of fencing was installed to prevent livestock from accessing a newly restored wetland feature in Silverdale in the 16 Mile Creek watershed.
- Engineered Drawings for work to be completed in 2011 to improve 190ft of degraded stream bank in 16 mile creek was completed in 2010.
- 1 riparian and meadow project was completed on 15 mile where ½ acre was planted with more than 1800 wildflower plugs and more than 1.5kg of native seed.
- Over 300 m² of stream bank was restored to assist and improve the movement of juvenile Snapping Turtles (Species at Risk) into 15 mile creek.
- Over 600 m of vineyard property was buffered with native vegetation to assist with increasing biodiversity and increase the presence of predatory insects.

6) Niagara-on-the-Lake Restoration

The following are the program accomplishments from the 2010 implementation year:

- The creation of 1 manure storage project within the 6 Mile Creek Watershed at an organic and biodynamic-certified winery (Southbrook Winery)
- 1 nutrient management project at a greenhouse operation within the Lake Ontario #4 Watershed. This project allowed water to be collected and re-used after watering thereby reducing the amount of nutrients being added each time and preventing the runoff from entering the nearby creek. (Meyers Fruit Farms Inc.)
- The completion of a 10 m riparian planting including invasive species removal and replacement with appropriate native species within the One Mile Creek Watershed
- A 135 m riparian planting of native tree and shrubs species was completed along 4 Mile Creek.
- 1 acre along 4 Mile Creek was enhanced with pit and mound topography and a small wetland feature which has been seeded and planted with native grass, wildflower, shrub and tree species. In addition, two stream crossings were incorporated to allow for barrier free accessibility. (Red Roof Retreat)
- A nearly 5 acre livestock restriction was created along the Routh Drain in order to keep cattle out of a watercourse feeding the drain.
- 3 additional landowners were provided with native plant material for use on their property

Further highlights within the Niagara-on-the-Lake watershed include:

Water sampling was completed at five (5) different sites in NOTL and was paired with flow monitoring. It is hoped that this data will help the NPCA further understand where the largest nutrient loads are coming from in NOTL and where to focus restoration efforts. This type of sampling is standard in all sub-watersheds coordinated with the water quality specialist. Extra effort is given to NOTL due to the sensitivity of the irrigation network and the dependency on it.

The design for the NOTL Natural Channel Design Demonstration project in partnership with the Town of NOTL was completed in January 2010 and is ready for implementation on the Harrison Drain 1 (2 Mile Creek) at the beginning of January 2011.

The NPCA in partnership with the Niagara Restoration Council have been working on a restoration plan for Landsdowne Pond in One Mile Creek in NOTL. Funding has been secured

from Eco Action (\$63,000) for the implementation of various biodiversity and water quality improvements such as invasive species removal and sediment catch basins.

The NOTL Implementation Steering Committee met 2 times over the course of the year. During these meetings the committee discussed:

- Clarification on Committee members role
- Upgrades to the NOTL irrigation network
- NPCA 2010 Water Quality Improvement Program Projects
- NPCA education in the community
- Results from the NPCA 2009 water quality monitoring and dates for 2010 monitoring
- Update on Trout Unlimited monitoring activities for 2010
- Town of NOTL tour of piped sections of the irrigation network
- Town of NOTL master servicing plan for the Glendale area
- The NOTL Natural Channel Design Demonstration project
- Debris jams along natural sections of creeks within NOTL

The One Mile Creek Implementation Committee met 2 times over the course of the year. During these meetings the committee discussed:

- One Mile Creek Landowner Stewardship Guide delivery and Public Open House
- Results from the NPCA 2010 water quality monitoring
- NPCA Water Quality Improvement Projects for 2010
- Activities of the Friends of One Mile Creek
- Town of NOTL subsidies for residents to improve water quality (rain barrels and disconnections from sanitary sewers)
- Further prioritization of the recommended actions within the Watershed Study
- Landowner projects completed in 2010 with assistance from the NPCA
- Landsdowne Pond Project update and presentation by Corey Burant, Niagara Restoration Council
- Lack of baseflow in OMC
- Culvert replacements by the Town of NOTL
- Options for mosquito control were given by NPCA staff, mostly habitat for predators
- Results of monitoring upstream and downstream of William Street landfill showing that the landfill could possibly be contributing to elevated nutrient concentrations in OMC

NPCA restoration staff attended Friends of One Mile Creek (FOMC) Executive meetings throughout 2010 as well as 2 FOMC general members meetings, and 2 One Mile Creek clean up events. The NPCA also assisted FOMC in a tree planting event in the One Mile Creek watershed where 60 native trees were planted by volunteers.

In October 2010, the NPCA received a thank you letter from the Friends of One Mile Creek. The letter thanked the NPCA staff for their support and highlighted the importance of the Stewardship Guide, noting its contribution to increasing interest in the Friends of One Mile Creek group.

Staff have also been meeting with landowners to discuss and develop projects for the 2011 program year. Projects for next year include:

- A 120 m Shelterbelt planting within the 2 Mile Creek Watershed.
- 2 riparian stabilization projects are currently being developed for implementation along 145 m consisting of 2 neighbouring properties on 4 Mile Creek.

7) Twelve Mile Creek Restoration

The following are the program accomplishments from the 2010 implementation year:

- A stream buffer and bank stabilization project was completed at Kala Hardware, funding support was received from the St. Catharines Green Committee.
- Staff worked with teachers and students from Assumption Elementary School to control weeds on a restoration project completed on school grounds in 2009. Teachers and students also helped staff to repair and improve the damage caused by vandals to the completed project by planting large diameter trees.
- Staff completed a bank stabilization and riparian buffer project with a private landowner in the Upper Twelve on half of a kilometer of stream.
- A public tree planting event was hosted by the NPCA and the Lion's Club of Fonthill in conjunction with Scout Trees and Zehrs. Volunteers planted 650 trees. Staff also implemented an invasive species removal and replanting in a ravine on the property.
- Staff continues to work with the Friends of Short Hills Park to complete pre-winter repairs and maintenance to the deer exclosures in Short Hills Provincial Park.
- Staff worked with a landowner to replace a failing culvert with a bed-level crossing in the Upper Twelve.
- Staff helped implement a 0.5ha wetland expansion in partnership with Ducks Unlimited and the property owner. Staff is working with a relative of the property owner to create a larger 2.4ha wetland on an adjoining property.
- A total of 8 acres on two properties were restored in partnership with the Niagara Restoration Council, Ontario Power Generation and Landcare Niagara.
- The NPCA in partnership with the Nature Conservancy of Canada has been working to restore interior forest at the Lathrop Nature Reserve in Fonthill. Two old agricultural fields have been put back into forest habitat.
- The NPCA in partnership with Ontario Power Generation and the Niagara Region has been working to restore escarpment edge forest habitat on a 14 acre, old agricultural field, adjacent to the Decew water treatment plant and the Bruce Trail. This year concludes the third year of the aggressive restoration plan timeframe. Two interpretative signs explaining the efforts will be installed this fall at two locations adjacent to the project on the Bruce Trail for hikers to enjoy.
- The NPCA in partnership with the Niagara Restoration Council and the Friends of Short Hills Park have been working on a restoration plan for the agricultural land adjacent to Short Hills Park. The 100 year leases around the park are expiring and will be put back to natural areas. Both Eco Action and Trillium will be funding this two year restoration initiative.
- The NPCA in partnership with Ontario Power Generation, the City of St. Catharines and Niagara College have been working to establish snapping turtle nesting sites in the Twelve Mile Creek Valley. Lafarge Inc. donated the staff time and the material and supplies for the project. NPCA staff supplied the invasive species removal and the native plant installation. The Snapping Turtle is a special concern species under Ontario's Endangered Species Act, 2007. It has also been assessed nationally as a special concern species by the federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Funding for this project was secured from the St. Catharine's Green Committee.

The annual Twelve Mile Creek Implementation Committee meeting was held and highlighted the projects completed last year by NPCA and the watershed partners, the meeting laid out the proposed projects for the coming year.

Site visits with interested watershed landowners will continue as staff discusses a wide range of project possibilities for the 2011 program year.

8) Yellow Fish Road

It has been five years now that the NPCA has been coordinating the Yellow Fish Road program locally on behalf of Trout Unlimited. In 2010 over 50 people were engaged in this program and a total of 129 storm drains were painted across Niagara. Areas covered during the 2010 season include Grimsby, St. Catharines, Niagara-on-the-Lake and Port Colborne. Since 2006, 38 school groups have been reached, including over 480 students. There have been 1201 drains painted and approximately 4000 door hangers distributed.

In 2010 NPCA received a Shell Canada grant through Trout Unlimited totaling \$2,700.00. This grant was used to create new and exciting promotional materials to deliver the Yellow Fish Road program in Niagara. This grant helped the NPCA create a rack card that was specific to Niagara, as well as a poster to be used as a teaching aid to participating schools. A floor sign with information about the YFR program was also created to allow people driving or walking by during a painting to read about the event taking place and to obtain the NPCA's contact information.

9) ECO School Program

In 2010, 23 schools participated in the ECO School Program. The program reached over 400 students, raising awareness about the importance of natural areas and native plants. The ECO School program planted over 5000 wildflowers, 23 trees and 90 shrubs which created over 400 square metres (4280 square feet) of green space in Niagara's school yards in 2010. Since the inception of the program in 2006, more than 2400 square metres (25 600 square feet) of green space has been created.

Now at the end of its initial 5 year phase, the ECO School Program will evolve into a school yard tree planting (shade tree) program. Staff are working with the Niagara Water Smart Program to secure funding for this initiative.

10) Niagara Envirothon

The NPCA took the leading role in organizing and delivering the third annual Niagara Envirothon at the Stevensville Conservation Area in April 2010. Seven local schools competed, totaling 13 teams and 65 student participants. The event brought many local professionals together to educate the students about wildlife, forestry, soils/landuse and aquatics. These professionals included local foresters, naturalists, Niagara Restoration Council staff, NPCA staff and many others. The event was documented by Cogeco and appeared on *The Source*. The first place team from Niagara went on to compete in the Provincial Envirothon in St. George Ontario.

The Canon Envirothon is a North American wide competition that gets highschool students in an outdoor setting to learn about soils/landuse, aquatics, forestry and wildlife, as well as a current

issue. Teams start at the local level and the winning team moves on the Provincial level. From there the winning team goes on to compete on an international level at the Canon Envirothon.

11) Community Fisheries Involvement Programs

The Angler Diary Program continues to collect data from anglers in the Welland River watershed. A total of 38 diaries were distributed in the Welland River Watershed in 2010. Local anglers record the date and time they were fishing, species of fish caught, their length and whether they were released or kept.

Letters were sent out to all anglers in both watersheds in November to return their diaries so that the data can be collected and added to the diary database. The information collected from local anglers is valuable in order for the NCPA to make the best possible fisheries restoration decisions. Anglers who return their diary before the December 3rd deadline will qualify for a draw for one of three Canadian Tire gift cards. The draw will take place on December 9th 2010 and winners will be notified.

The Welland River Fish Tagging Program was active again in 2010. Fish measuring over 150mm were tagged at the annual Fishing Derby which took place at George Burkator Park in Chippawa. In addition to the Derby, *Biotactic Fish and Wildlife* assisted NCPA staff in tagging fish that were caught using a seine net in the Welland River watershed on three separate days spanning September, October and November 2010. A total of 57 fish were tagged in 2010, including Brown Bullhead, Pumpkinseed, Yellow Bullhead, Rock Bass, Yellow Perch, Bluegill, White Sucker, Largemouth Bass, White and Black Crappie, Common Carp and Northern Pike. A Muskellunge fish was caught in the Welland River at Baden-Powell Park in Niagara Falls. This was the first time that Muskellunge have been caught since the inception of the Fish Tagging Program in 2003. Grass Pickerel, a species with Special Concern status both provincially and nationally, were caught at three different locations in Oswego Creek in November 2010. The fish were carefully measured and photos were taken to document them before releasing them back into the creek.

Only one recapture was reported in 2010. Since the tagging program's inception in 2003, a total of 594 fish have been tagged and a total of 59 recaptures have been recorded. The information gathered helps us to better understand how fish are moving through the Welland River watershed, the species that occur and where there may be barriers to migration. This information is available in an annual report which is shared with MNR.

12) Landowner Stewardship Guide

- Building on the success of the One Mile Creek Landowner Stewardship Guide, staff are working to modify this guide to a watershed wide "How to" guide for landowners. Main topics sections will focus on improving water quality and biodiversity. It is anticipated to be completed in January.

13) Source Water Protection Stewardship

- Staff are working with several producers in the Decew Source Water Protection Area on Early Action projects such as farm runoff and buffer projects.

14) Niagara College Project Mentorship Program

- Niagara College students are working with staff on the following two projects:

Biochar: The second phase has begun for field trials using a charcoal based soil amendment (biochar) to further test the response of native plants to degraded soils amended with biochar. The initial observations from the 2009 field trials have been very encouraging warranting further study and were made possible through grants from Ontario Centers of Excellence.

Wetland Design: Students are preparing a report for the final seeding and planting plans for a large wetland creation/fish habitat project compensation project scheduled for completion in the spring of 2011.

VI. Remedial Action Plan (RAP)

1) Lyons Creek East

The Contaminated Sediments Technical Advisory Group (TAG) met in mid-October. The agenda included update presentations on the Sediment Transport Study (Golder Assoc.) and the Lyons Creek East Contaminated Sediment Long-Term Monitoring Plan (Environment Canada). More time is required to complete the Sediment Transport Study and a draft report is anticipated in mid-January, 2011. There was consensus that due to the delay of the Sediment Transport Study report and the acquisition of agency signatures for the Administrative Controls document that the TAG will remain in place. Discussion on the roles and name of the new committee that will oversee the long-term monitoring plan has been deferred until early 2011.

Next steps for Lyons Creek East involve establishing a Management Framework Agreement between the stakeholders and the NPCA and a public communication strategy.

The next TAG meeting is planned for late January/early February, 2011.

2) Stage 2 RAP Update

The Niagara River (Ontario) Remedial Action Plan (RAP) Stage 2 Update report & RAP Update 2010 fact sheets are posted on the NPCA web site.

The RAP Implementation Committee Workshop was held at Niagara College on November 10. Under the theme: *"Charting the course to delisting and beyond"*, the event featured presentations in the areas of water quality, toxics and habitat, as well as updates on the Ontario and New York Niagara River RAPs and the status of Niagara Region's *Sustainable Niagara* and *WaterSmart* Initiatives. The event was well attended by representatives from the RAP implementing organizations and guests.

A one-day workshop to address the BUI: *Loss of Fish & Wildlife Habitat* will be held in March 2011. The main outcome of the workshop will be the identification of sites and implementers for the RAP Habitat Strategy. Maps and GIS analyses of data from the Natural Heritage Inventory will be available to aid discussion and decision-making during the event.

The RAP Stage 2 Update report (Dec.2009) received agency approval and sign-off in November 2010. It will be forwarded for review by the COA Management Committee in December 2010.

The next RAP Coordinating Committee meeting is scheduled for mid-January 2011.

3) Update: Canada-Ontario Agreement Respecting the Great Lakes Ecosystem (COA).

Since 1971, the Parties (Canada and Ontario) have worked together through a series of Canada-Ontario Agreements (COA) Respecting the Great Lakes Ecosystem. COAs have guided their efforts to improve the environmental quality of the Basin and contributed to meeting Canada's obligations under the Canada-United States Great Lakes Water Quality Agreement (GLWQA). The current COA is in effect until March 2011, after which there may be an extension of one more year.

4) International Liaison

The RAP Coordinator will attend the next U.S. Niagara River RAC meeting on December 9 in Buffalo at the New York State Dept. of Environmental Conservation office.

The International Association for Great Lakes Research (IAGLR) Conference will be held in Duluth, Minnesota, May 30 – June 3, 2011.

5) Update: Great Lakes Water Quality Agreement.

The current GLWQA is the revised Agreement of 1978 as amended by Protocol in 1987. A review of the Agreement and its Annexes has been underway since 2006. The process included extensive stakeholder and public consultation efforts, culminating in the submission of a report to the governments of Canada and the United States in December 2008.

A recent update indicates that negotiations between the governments are moving slowly and VI.

LAND MANAGEMENT

Ball's Falls Conservation Area

Marci Jacklin (Brock University) and Rob Kuret and Andrea Wilson provided an Owl Prowl and evening program on November 6 for 20 visitors. More than 6,000 visitors were on site during "Northern Owls" (September 18 – November 14), the travelling exhibit from the ROM. Student visits for the education program offered, totaled 284, while 180 students chose the self-guided option.

The soap-making workshop on Sunday, November 14 had 10 participants.

Ball's Falls set the stage for The Rotary Club of Lincoln's 2010 "Lamplighter Tour" held November 18-21; the production welcomed 400 visitors who purchased tickets to "You're Invited to the Wedding". A series of vignettes about a Ball family wedding were performed in and around the heritage buildings. All proceeds go directly to paying for the Rotary Shell at Charles Daley Park.

The temporary exhibit, "War on the Lakes" opened on November 20, 2010. More than 70 visitors attended the special event, "The War on the Water – 1812 -1814: An afternoon of Art, Archaeology & Music" held Saturday, November 27. Tickets sales for the print, In Company, by marine artist Peter Rindlishbacher raised \$425. Neil Miles of Grimsby was the lucky winner; he was in attendance at the event when the draw took place. A school program is offered in

conjunction with this exhibit. MP Dean Allison visited the exhibit with staff and Linda Stanley who developed the exhibit.

The Christmas in the Country education program currently has 1,100 students booked.

As part of the marketing plan initiatives Ball's Falls site staff are assisting with the development of a web-page for Ball's Falls. A facility – use survey has been prepared and distributed to current corporate users to assist us with improving services for this market.

Materials have been purchased to install clapboarding on the mill. The north side of the mill was completed in 2008 to take advantage of the scaffolding that was constructed for masonry work required on the foundation. Window frames for the mill have been ordered. NPCA staff will complete these projects over the winter months.

Museum staff present at the Museums of Niagara meeting held on November 30 expressed concern on the timing of the Ministry of Tourism & Culture's recent announcement, regarding planned changes to the process used to assess all clients in the CMOG program as well as revisions to the standards. Concern was noted that very little notice was provided, given that changes will be in effect for the 2011-12 funding year, and that museums are required to complete an initial survey by January 30, 2011.

Staff from the Ministry of Natural Resources visited the site to examine some of the species at risk found along the Niagara Escarpment. Staff have received technical information that can be used to protect these sensitive species and help recover the populations. This information will be used to develop management strategies for 2011.

Binbrook Conservation Area

The waterfowl hunting season will finish on December 11th. Work is already underway to get the area ready for ice fishing in January.

Staff are working with the City of Hamilton to make improvements to the splash pad, bringing this facility into conformity with new regulations that will take effect in 2011. Ultra-violet disinfection equipment will be necessary for all recirculating splash pads. These facilities are now being considered as pools, with similar water quality objectives. Staff expect all modifications to be complete well before the opening season.

Lathrop Property, Fonthill

This property, owned by the Nature Conservancy of Canada, was the subject of recent interest by our staff who were called in to inspect and document/map with our GPS equipment site damage caused by unauthorized off-road mountain bike and dirt bike riding. Staff photographed and mapped a significant number of areas on the property that have been damaged by these activities. We have submitted detailed mapping and a management report to the NCC outlining the work and costs that would be incurred to restore the property. A work plan is currently under discussion with the NCC and we stand ready to assist with their property management at their request.

Conservation Lands Property Assessments

We recently received our property assessment valuations for our conservation lands in Niagara, Haldimand, and Hamilton from the Municipal Property Assessment Corporation (MPAC).

Currently the NPCA manages 37 recognized conservation areas and has an assessment roll of 61 properties totalling 7,000 acres with an assessed value of 9.28 million dollars (2011 valuation). We are noticing a 5% increase in our assessed property values over the past year.

Three new properties have been added to the NPCA assessment roll this year: Beamer Conservation Area added a 1.77 acre triangular shaped land parcel to our north boundary on the escarpment. Woodend Conservation Area added a 2.34 acre parcel below the escarpment to the east of the property alongside the QEW. And at Cave Springs Conservation Area we acquired a 24.34 acre forested parcel on top of the escarpment at the south east property boundary. All of these lands are currently under evaluation by staff for ecological and managed forest potential.

On our tax assessment, we receive significant tax relief having our conservation lands enrolled in the Conservation Land Tax Incentive Program (CLTIP) and the Managed Forest Tax Incentive Program (MFTIP) administered by the MNR. We are pleased to report that in this past year significant acreages on the following conservation lands have been accepted into the CLTIP program: Willoughby Marsh, Shriner's Creek, Wainfleet Bog, and our EC Brown Wetland site. In this past year forest management plans were updated and accepted to the MFTIP program for Binbrook and Chippawa Creek.

COMMUNITY RELATIONS

Conservation Achievement Awards

The 2010 Conservation Achievement Awards reception was held on Wednesday, November 25, 2010 at the Centre for Conservation, Ball's Falls. This year we had approximately 220 people in attendance. While the Centre is a wonderful facility, due to the numbers of guests that generally attend the event, it will be necessary to consider alternate venues for the future. Thanks to members and staff who assisted to make the evening so special for our volunteers. Feedback from those in attendance has been very positive.

50th Anniversary Wine

The NPCA 50th Anniversary wine is available for purchase at Cave Spring Cellars retail store located on Main St. in Jordan. Proceeds from the sale of this wine will be donated to the NPCA for the Jordan Harbour re-development project. Members are encouraged to support this effort by purchasing the products.

Council Orientation

Staff has been working with the Niagara Region to develop information for the incoming council members. A new councillor orientation session for ABC's took place on December 2 and was well attended. Staff also attended and participated in the Public Engagement session which was held on November 25th.

NIAGARA PENINSULA CONSERVATION FOUNDATION

Niagara Community Foundation

The Niagara Community Foundation is once again accepting applications through its environmental grants program. As such, an application has been submitted in support of a watershed-wide landowner stewardship guide being developed through the NPCA's restoration program.

Funding

Foundation staff and the Chairman were invited to attend the grand opening of a new TD Canada Trust branch in Binbrook on December 3rd. At the opening, our Foundation was presented a cheque in the amount of \$5,000 from the TD Friends of the Environment Foundation to support work being done on the Gatehouse Trail at Binbrook Conservation Area.

Elimination Draw & Dinner

The Foundation will be hosting its Elimination Draw & Dinner on Friday, April 1st at the Welland Lions Community Centre on River Road in Welland. Plans for the evening include a delicious five-course dinner, all drinks and the opportunity to win more than \$1,000 in cash prizes. In order to enhance the event, staff is investigating opportunities for musical entertainment to be included.

Golf Tournament

The 2011 Bob Welch Memorial Golf Classic is scheduled to take place on Tuesday, June 7th at the Whirlpool Golf Course. The cost to each participant will remain the same at \$200 per golfer, as there is a minimal increase per golfer this year.

Recommendation:

Report No. 79-10 outlining the status of Authority projects be received for information.

Respectfully Submitted by: _____
Tony D'Amario, P.Eng.
Chief Administrative Officer/Secretary-Treasurer