



Nottawasaga Valley Conservation Authority 2010 ANNUAL REPORT



CELEBRATING 50 YEARS OF CONSERVATION



Municipalities in the Nottawasaga Valley Conservation Authority watershed:

Township of Adjala-Tosorontio

Township of Amaranth

City of Barrie

Town of The Blue Mountains

Town of Bradford
West Gwillimbury

Township of Clearview

Town of Collingwood

Township of Essa

Municipality of Grey Highlands

Town of Innisfil

Township of Melancthon

Town of Mono

Township of Mulmur

Town of New Tecumseth

Township of Oro-Medonte

Town of Shelburne

Township of Springwater

Town of Wasaga Beach

On the cover:

Canoeing in Minesing - 1960s

Students Working in an Environmental Enhancement Program (SWEET) - 1971

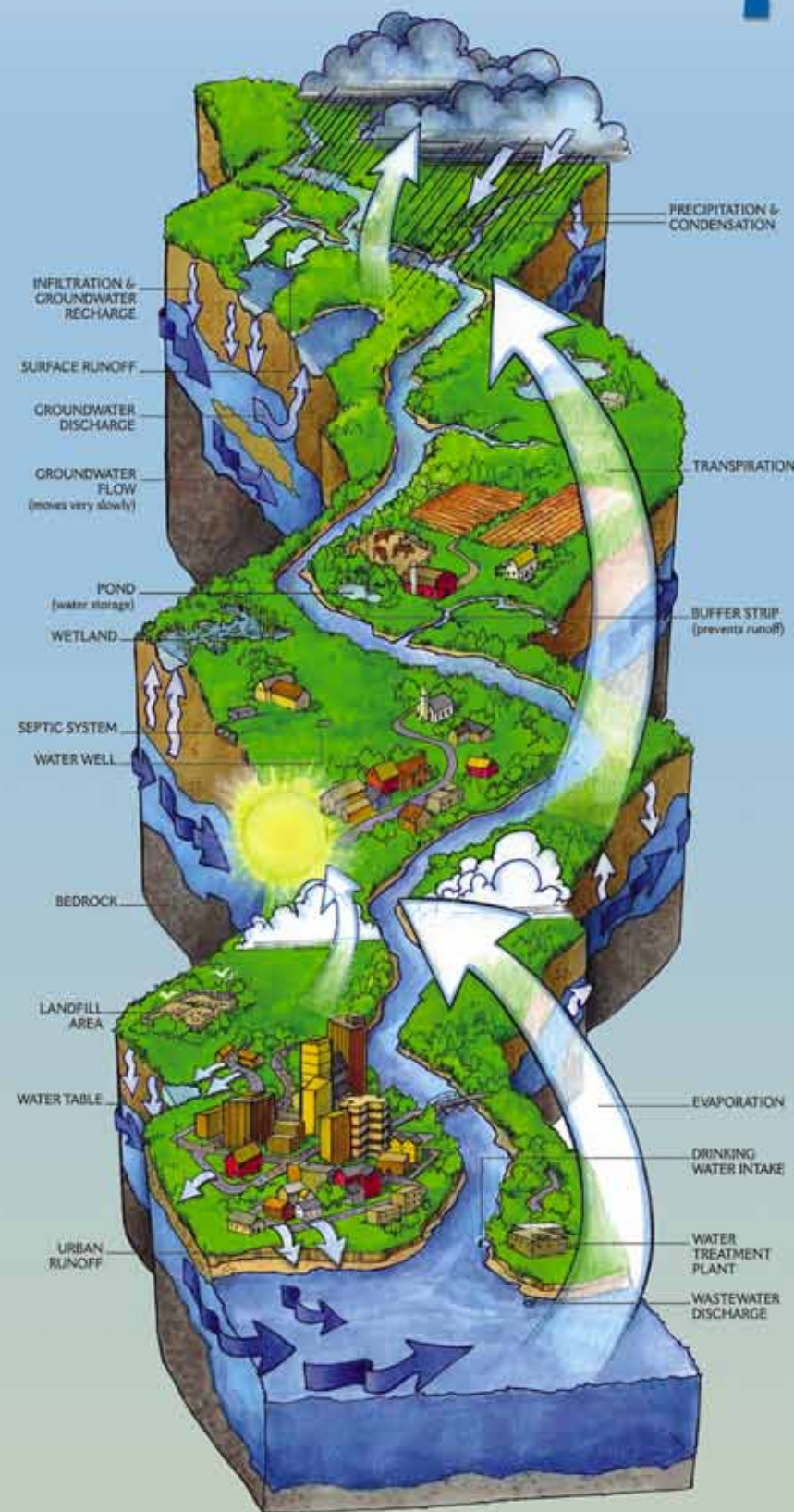
Sunnidale Township 125th anniversary parade - 1985

14th annual fishing derby - 1995

Measuring baseflow on the Boyne River - 2000s

WATERSHED Connections

What makes up our Watersheds?



A MESSAGE FROM OUR CHAIR

As we look back over the NVCA's 50 years of conservation, it seems clear that as much as we have grown and changed as an authority, our vision for a healthy watershed has stayed very much the same.

Revisiting the aspirations of the first NVCA board, I find that their aims and concerns still resonate. The quality and quantity of our water – both for drinking and recreation – is as much a concern today as it was then. Although we have the benefit of half a century of research, stewardship, land management and regulation to assure us that we have made progress, we also have a greater awareness of just how vulnerable our water is, and how many threats are yet to be addressed.

A pressing concern of the NVCA in the '60s was to acquire conservation lands both to protect the water, flora and fauna, and to create educational and recreational opportunities for residents and visitors. This has remained at the forefront of what we do, and I have no doubt that my predecessors would be proud to see what we have accomplished in areas such as the Minesing Wetlands. The recent discovery in the wetlands of a rare species of dragonfly, never before seen in Canada, illustrates the importance of this unique area and our role in preserving it for generations to come.

In our 25th year, then-Chairman Jim Arnold stated in his annual report message: "On the occasion of our fiftieth anniversary, Authority members and watershed residents will most certainly praise the efforts that we have attempted to exemplify in our 25th anniversary publication. [...] To those that came before us, we owe a debt of gratitude, to those who will follow, we hope that we have provided a sound foundation to build on." I echo this wholeheartedly, and can't imagine any greater compliment than for the Chair in 2035 to look back at the work we are doing today and declare it to have been a solid layer in the foundation, helping to guide the NVCA and the watershed towards the future.

This report focuses on the four key objectives outlined in the NVCA's current business plan, and highlights just some of the work done in 2010 towards meeting those goals. As always I am proud of the work of our staff and our Board, and I look forward to even more exciting achievements as we embark on the next 50 years of conservation.



Walter Benotto

Walter Benotto

A MESSAGE FROM OUR CAO/ SECRETARY-TREASURER

What inspires me most about the history of the NVCA is how we have consistently risen to the needs of the watershed. The NVCA was created out of the concern of municipalities that more needed to be done to protect residents, property and natural heritage. Municipalities were concerned about the threats posed by natural hazards like the floods they had seen just five years earlier during Hurricane Hazel. They recognized a growing degradation of forests, wetlands and water quality, particularly as increasing population and development resulted in challenges managing storm water. They feared for the health of our ground water as well as our recreational waterways.

What's more, they realized the need for local municipalities to work collaboratively on a watershed basis with the province to address these growing issues. They called for the creation of the NVCA as a means of allowing their representatives to work together to deal with the water that flowed with no respect for municipal or county boundaries.

This was the beginning of a tradition in which the NVCA would grow and change to meet the needs of governments and the people they represent. In the early years, staff were hired to manage conservation areas, plant trees and work to prevent flooding and erosion. Then as provincial policies and legislation changed, the demands on conservation authorities increased to include regulation, planning and fisheries protection, necessitating the hiring of specialized staff such as biologists, resource planners and water resource engineers.

In 2001, the NVCA grew to take on new stewardship responsibilities. The Clean Water Act of 2006 – stemming from the tragedy in Walkerton in 2000 – underlined the importance of protecting drinking water sources, and the resulting inquiry identified CAs as playing a key role in the protection of municipal drinking water supplies. This led to the NVCA hiring its first hydrogeologist, and ushered in the era in which we find ourselves today, where our focus is on the science of watershed management.

We are now seeing greater advancements in areas of study such as natural heritage, ground water, fisheries habitat protection and water resource engineering. It is with this knowledge that the NVCA now works to support a local economy that depends on safe development, clean water, clean beaches, healthy streams, quality fisheries and safe recreational waterways.



Wayne Wilson

Wayne Wilson

An Atlantic Hurricane by the name of Hazel hit significant portions of Ontario in October 1954, killing 81 people and leaving another 4,000 homeless – statistics that have not been equalled in this country since.

More than five years later, the Nottawasaga Valley Conservation Authority was established by Order-in-Council on May 5, 1960 and held its inaugural meeting on June 21, 1960. Of the 28 prospective members, 21 were present for the first election, at which Richard McQueen from Nottawasaga was elected Chairman, and Carman Downey from Vespra was elected Vice-Chairman.

The original levy on municipalities was set at 2 cents per capita. A total budget of \$2,000 – half of which came from

government grant – was set aside for the year, primarily for mailings and per diem costs for members. The first tract of conservation land was acquired in 1962, consisting of a 10-acre site now known as the Edenvale Conservation Area.

A mere 10 years later, with revenue of almost \$56,000, the NVCA owned 675 acres of conservation lands, with seven designated conservation areas. Land acquisition was a key priority, with urgent concerns about preserving as much natural heritage as possible. The Tiffin Centre (known then as the Tiffin Wilderness), had its

first well dug and picnic tables installed. The fish and wildlife program was working hard to improve habitats through tree planting, and almost 30,000 trees had been planted in these areas by the end of 1970.

The Forestry program was also alive and well in 1970, and more than 80 landowners were assisted with their tree-planting endeavours. The first NVCA brochure was printed, including a watershed map, conservation areas and facilities and general information about the authority.

The NVCA had come a long way by the time it celebrated its 25-year anniversary in 1985, boasting 13 conservation areas and 5,930 acres of conservation land. The Tiffin Centre had expanded from 48 to 395 acres, and more than 1,800 school children participated in outdoor education programming that year.

The 1985 annual report said: "Outdoor education is here to stay [...]" and the Tiffin Centre for Conservation has a definite role to play in providing the resource and the facilities for outdoor learning."

- Since its inception, the NVCA has:
- planted 2.5 million trees
 - grown to have jurisdiction over approximately 3,700 km²
 - increased its conservation lands to approximately 12,000 acres
 - completed thousands of stewardship projects
 - hosted over 100,000 students through the education program
 - worked with municipalities and landowners through regulation and plan review to help ensure over 25,000 properties are safely built outside of flooding/erosion hazard areas, while protecting properties downstream



The Tiffin Centre begins its first maple syrup producing season in March 1974.



NVCA staffer Linda Carr talks nature with a visitor.



Tree planting youngsters in the 1980s.



Fish stocking at the Tottenham Conservation Area in 1982.



Irene Davis, Warden of Dufferin County, and Jim Arnold, NVCA Chairman, cut the 25th anniversary cake.



The 50th anniversary cake is cut by Fred Nix, Mary Brett, Wayne Wilson, Joan Sutherland and Gord Montgomery.

NVCA'S 50TH ANNIVERSARY CELEBRATION AND TREE PLANT

More than 50 people gathered on a rainy May 1st to celebrate the NVCA's 50th anniversary with a tree plant along Black Ash Creek in Collingwood. In attendance were many of the partners, staff and Board members who have

been an important part of the NVCA's success over the years. Following a brief ceremony, a cedar tree was planted on the site to commemorate the occasion, and another 250 tree seedlings were planted along the creek banks.

The planting was assisted by volunteers including the Nottawasaga Steelheaders, staff from R.J. Burnside & Associates Ltd. and Canadian Mist, the Collingwood chapter of the Katimavik youth volunteer program and the public.

2010 Highlights: By the Numbers

Municipality	Land & Water Services						Tiffin Centre			Corporate
	Acres of conservation land acquired	Total acres of conservation lands	Healthy Waters - # projects	Healthy Waters - \$ spent	Trees planted	Acres planted	Number of schools participating	Total school group visits	Children involved in ed programs	Freedom of Information requests
Adjala-Tosorontio	0	6	9	\$ 79,633	37,150	37.4	2	3	115	2
Amaranth	0	0	0	\$ -	0	0	0	0	0	0
Barrie	0	0	0	\$ -	0	0	41	86	4106	0
Blue Mountains	0	100	0	\$ -	0	0	0	0	0	0
Bradford										
West Gwillimbury	0	0	1	\$ 1,200	0	0	3	4	152	0
Clearview	0	2673	1	\$ 705	3,700	5	1	2	74	0
Collingwood	0	46	0	\$ -	1,700	3	2	2	67	1
Essa	0	410	2	\$ 3,395	6,750	8.5	4	6	193	1
Grey Highlands	0	731	0	\$ -	0	0	0	0	0	0
Innisfil	0	0	0	\$ -	0	0	11	20	853	0
Melancthon	0	0	0	\$ -	0	0	0	0	0	0
Mono	9	9	0	\$ -	0	0	0	0	0	0
Mulmur	0	0	0	\$ -	21,950	28.3	0	0	0	0
New Tecumseth	75	209	0	\$ -	7,100	9	11	16	579	0
Oro-Medonte	0	15	2	\$ 11,497	10,000	14	2	3	123	0
Shelburne	0	0	1	\$ 6,687	0	0	1	1	54	0
Springwater	0	7506	0	\$ -	15,000	18.5	3	3	181	1
Wasaga Beach	0	0	0	\$ -	0	0	1	1	25	1
TOTAL Watershed	84	11,705	16	\$ 103,117	103,350	123.7	82	147	6522	6

Source Water Protection		Engineering & Technical Services				Planning Services				
SWP - Early Actions - # projects	SWP - Early Actions - \$ spent	Prov. Water Quality Monitoring	Benthics monitoring projects	Baseflow monitoring projects	Provincial Groundwater Monitoring	Solicitor inquiries	CA Act approvals	Violations	Zoning amendments	Subdivisions
54	\$ 143,603	2	5	42	2	7	55	3	7	0
0	\$ -	0	3	50	1	1	7	1	3	0
6	\$ 54,305	0	3	0	1	4	10	0	9	0
0	\$ -	0	0	21	0	1	2	0	4	1
0	\$ -	0	0	1	3	2	9	0	3	1
34	\$ 226,547	1	8	110	0	6	54	6	15	2
13	\$ 251,038	4	3	37	0	6	35	1	4	0
8	\$ 32,948	3	5	0	2	3	71	2	3	0
0	\$ -	0	2	20	0	1	2	0	6	0
5	\$ 38,800	0	0	2	0	0	15	0	2	0
0	\$ -	0	0	0	0	3	12	0	4	0
0	\$ -	0	7	24	0	7	16	4	0	0
4	\$ 14,018	0	0	1	0	7	13	0	2	0
8	\$ 30,951	3	9	7	1	8	42	0	8	3
7	\$ 17,154	0	1	0	0	3	59	0	4	0
8	\$ 24,795	0	0	0	0	0	0	0	7	0
159	\$ 743,973	3	11	4	2	11	51	0	11	1
0	\$ -	2	3	17	2	12	64	2	10	1
306	\$ 1,578,132	18	60	336	14	82	517	19	102	9

2010 NVCA Board of Directors



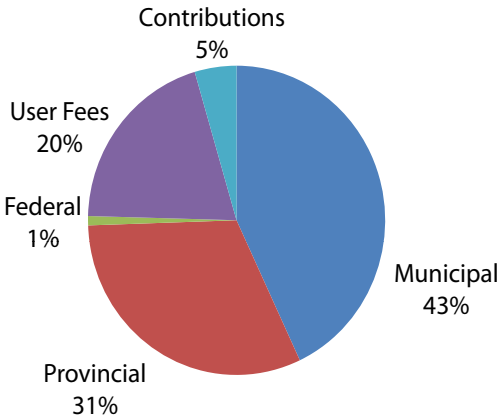
Front row L to R: Fred Nix - Mono, Sonny Foley - Collingwood, Chris Carrier - Collingwood, Walter Benotto - Shelburne (Chair), Tom Elliott - Springwater, Mary Brett - Adjala-Tosorontio, Debbie Fawcett - Melancthon

Back row L to R: Gerald Poisson - Barrie, Barry Ward - Barrie, Robert Walker - Clearview, Ron Simpson - Bradford West Gwillimbury, Orville Brown - Clearview, Rick Milne - New Tecumseth, Reg Cowan - Springwater, Rick Archdekin - Wasaga Beach, Ralph Hough - Oro-Medonte

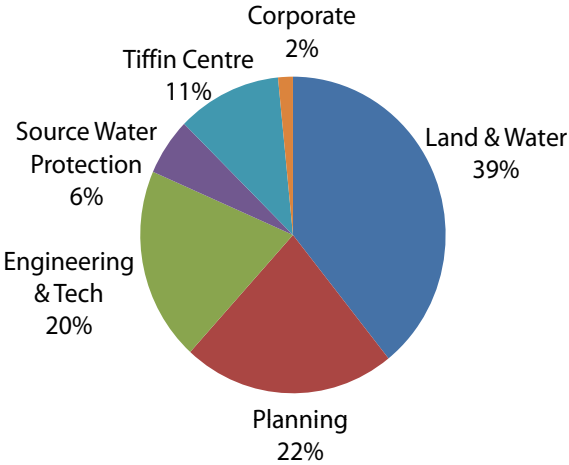
Not pictured: Ron Henderson - Essa, Terry Dowdall - Essa, Brian Mullin - Grey Highlands, Bill Van Berkel - Innisfil, Daniel Davidson - Innisfil, Gordon Montgomery - Mulmur (Vice-Chair), Harry Hughes - Oro-Medonte, Cal Patterson - Wasaga Beach

2010 NVCA Budget

Revenues: \$4,409,113



Expenses: \$4,225,402



ORO MORaine WATERSHED REPORT CARD

The NVCA began publishing watershed report cards in 2007, with the aim of releasing updates every five years.

Prior to 2010, reports had been published for the overall NVCA watershed, the Severn Sound Headwaters and the following subwatersheds:

- Bass Lake
- Blue Mountains
- Boyne River
- Innisfil Creek
- Mad River
- Pine River
- Willow Creek
- Upper Nottawasaga River

- Middle Nottawasaga River
- Lower Nottawasaga River

In 2010, the report card for the Oro Moraine was completed. Like the others, this report is more than just facts and figures, it also includes interesting historical background about the area and how it was formed. The following is excerpted from the report:

“The Oro Moraine was formed over 12,000 years ago at the terminus of one or more glaciers. Huge volumes of silts, sands and gravels were deposited in this area. As the glaciers retreated, this material was

sorted by glacial meltwaters, leaving a legacy of rolling sand and gravel deposits as well as meltwater valleys which cut into the edges of the Moraine.”

The report indicates that the Oro Moraine is a relatively healthy part of our watershed, achieving grades of A for forest conditions and groundwater, and B for stream health and wetland conditions.

Complete copies of the watershed report cards are available online at nvca.on.ca - from the Programs & Services menu, select Watershed Monitoring.

E.COLI MONITORING

For the first time in almost 15 years, the NVCA has begun monitoring ambient *Escherichia coli* (*E.coli*) levels in select rivers across the watershed. Sources of *E.coli* and fecal contamination in water are numerous, including (but not limited to) faulty septic systems, wildlife, livestock with creek access and spreading of incompletely composted manure. NVCA staff had not undertaken *E.coli* monitoring since the mid-1990s when it was part of the Clean Up Rural Beaches (CURB) program. When provincial funding for CURB was cancelled, so was monitoring for the bacteria.

As conservation authorities across the province are preparing watershed report cards, many of them are monitoring and reporting on *E.coli*. The NVCA included *E.coli* levels in its first set of report cards

in 2007, but had to use the old CURB data. The goal is to have new data for the next report card release, scheduled for 2012.

The study will place particular emphasis on understanding potential sources that could impact Wasaga Beach and its tourism base. The *E.coli* monitoring of Wasaga Beach is proactive, since the beach hasn't had *E.coli* contamination postings for a number of years; however, Tiny Beaches has had numerous postings in recent years. Staff are monitoring to understand if the Nottawasaga River contributes to the beach closings.

The testing will be conducted at 19 sites, 18 of which are part of the NVCA water chemistry monitoring program, with an additional site located near the mouth of the Nottawasaga River



NVCA staff member Natosha Fortini performs water testing.

in Wasaga Beach. Data collected will be used to focus stewardship activities both for reduction and remediation efforts.

ATTRACTING LOONS TO BASS LAKE

In March 2010, NVCA staff teamed up with members of the Bass Lake Ratepayers Association (BLRA) and NVCA Board member Ralph Hough, Deputy Mayor of Oro-Medonte, to install a loon platform on Bass Lake, hoping to attract loons to nest in the area. Loons have frequently been sighted feeding on Bass Lake, but the shape of the lake is not conducive to nesting, so the birds generally move on to Lake Simcoe to take up residence. The placement of the platform in the most sheltered area of the lake was intended to help make up for the natural shortfall.

The floating platform, framed by cedar logs and underlined with wire mesh, was filled with vegetation such as grass and cattails to mimic the loon's natural nesting habitat. While it doesn't guarantee that loons will nest on Bass Lake, it will provide habitat for lake species like turtles and fish.



The group lays vegetation in the platform to create nesting habitat for loons. From left to right: David Featherstone, NVCA; Ralph Hough, Oro-Medonte Deputy Mayor; Ian Ockenden, NVCA; Connie Simo and Erin Evans, BLRA members.

FISHERIES AND HABITAT MANAGEMENT

Lake sturgeon is a species of freshwater fish that has been provincially and federally designated as “threatened.” The Nottawasaga River provides critical spawning and nursery habitat for these fish.

Lake sturgeon lay their eggs in “riffles”, which are shallow, fast-flowing rock-bottom habitats that provide an oxygenated and protected environment for the eggs. In 2010, NVCA staff completed a two-year “Species at Risk” project to determine the location of all riffle spawning habitats in the Nottawasaga River. This work is extremely valuable for managing fish habitat for lake sturgeon as well as many other species.

In 2010, a total of 15 riffles were documented in the portion of the river within the Town of Wasaga Beach, to add to those identified in Essa Township in 2009.

A second objective of the 2010 study was to collect data on the health of river bank habitats, and to develop a plan for bank restoration. The plan documented seven high-priority sections for restoration, which had



A lake sturgeon in the Nottawasaga River.

been damaged by both urban and rural land use practices.

The study also included a detailed evaluation of summer water quality trends. Results indicate:

- a contributor to poor summer

water clarity is suspended algae, which grows in response to phosphorus in the water

- poor water clarity due to algae was found even when phosphorus concentrations appeared to be within acceptable limits

- the river “heals itself”, getting clearer in rock-bottom riffles where filter-feeding animals (native mussels, caddis flies) remove algae from the water
- water clarity appears to deteriorate moving downstream through flat, slow-moving river reaches, which are more conducive to algae growth

This project was supported by the Ontario Ministry of Natural Resources through the Species at Risk Stewardship Fund and by Environment Canada through the Habitat Stewardship Program for Species at Risk.

HEALTHY WATERS PROGRAM

The Healthy Waters program has been a significant part of the NVCA's water stewardship efforts for more than 10 years, and is designed to enhance water quality, improve fish and wildlife habitats,



A septic tank removed by the stewardship program.

and strategically restore stream health in the watershed. The program provides the financial, technical and project management support that local landowners and community groups need in order to implement effective water quality improvement projects and strategic river restoration programs.

In 2010, the Healthy Waters Grant Incentive Program completed 26 projects valued at over \$63,000, using more than \$42,000 in incentive grants. Stewardship staff also responded to 306 information requests.

The Ontario Drinking Water Stewardship Program was launched in 2010 to protect sources of municipal drinking water by encouraging eligible landowners to implement projects near municipal wells

and intakes. About 5,000 properties are eligible within the NVCA watershed. The majority of the projects completed in 2010 were in relation to septic systems, and included maintenance, repair and replacement.

By the end of 2010, the NVCA had delivered 309 drinking water protection projects: 253 septic projects, 40 well projects, 11 business pollution prevention reviews and five runoff/erosion projects. The total value was more than \$1.5 million, with \$1.1 million coming from grants and the remainder from landowners.

The NVCA delivered 15% of the province's projects (309 of 2038) and 64% of the region's projects (309 of 483). This proof of early delivery success enabled the region to receive a large share of the available Early Response funding for projects to be undertaken in 2011-2012.

THREE-YEAR GEOLOGICAL SURVEY COMMENCES

The NVCA in partnership with the Ontario Geological Survey began a 3-year study in 2010 to better understand the geology in south Simcoe County for the protection of source water.

A broad range of landowners in south Simcoe County use groundwater extensively, and population in the area is growing rapidly. This study is intended to benefit municipalities and the NVCA with an enhanced understanding of the ongoing management of groundwater resources.

The study includes the municipalities of Adjala-Tosorontio, Bradford West Gwillimbury, Essa, Innisfil and New

Tecumseth.

The first year of the study will collect information regarding subsurface geology. The second year will see the completion of numerous bore holes to refine the existing geology. The last project component will consist of a geological database and model that will aid in protecting the



A geological assistant inspects layered sands and gravels within the South Simcoe County study area that may yield groundwater sources for municipal water supply.

quality and quantity of groundwater for drinking and other uses.

COMMUNITY RIVER RESTORATION

In 2010, 15 restoration projects were completed in 10 municipalities, including 12 volunteer tree plantings and three larger-scale construction projects. The projects were completed on the following watercourses:

- Black Ash Creek - Collingwood (3)
- Beeton Creek - New Tecumseth (2)
- Boyne River - Adjala-Tosorontio (1)
- Cookstown Creek - Innisfil (1)
- Willow Creek - Springwater (2)
- Nottawasaga River - Mono, Essa and Clearview (3)
- Lamont Creek - Clearview and Wasaga Beach (2)
- Walters Creek - Shelburne (1)

The NVCA continues to promote strategic community engagement in water quality programs through coordinating the Nottawasaga Watershed Improvement Program

or N-WIP (Collingwood, Wasaga Beach, Blue Mountains, Clearview, Springwater and Essa) and by supporting the South Simcoe Streams Network or SSSN (New Tecumseth, Adjala-Tosorontio, Innisfil, Bradford West Gwillimbury and Essa). The NVCA is currently working on sustainability planning and has submitted funding applications in support of these two important grass-roots participation programs.

N-WIP is supported by Environment Canada, Ontario Ministry of Natural Resources, Ontario Ministry of the Environment, Canadian Mist Distillers, R. J. Burnside & Associates Ltd. and the Ainley Group. SSSN is coordinated by Nottawasaga



Beaver and Cub Scouts lend a hand to plant trees along Lamont Creek.

Futures with funding support from the Ontario Trillium Foundation and several local businesses.

NVCA 50th Anniversary Photo Contest

To celebrate its 50th anniversary, the NVCA launched a photo contest on August 1st, 2009, which ran until March 26th, 2010, allowing people to take photos during all

four seasons. Entries had to be taken in one of the NVCA's 18 municipalities and be related to NVCA programming. The top 50 entries were displayed at the 2010

Spring Tonic event for the public to vote on, and cash prizes were awarded to the top three selections. The winning entries are shown below.



1st place - "How you doing?" by Nathan Beaulne



2nd place - "Pine River at Hornings Mills" by Jan Hunter



3rd place - "Baby raccoon" by Georgi Denison

LAND ACQUISITION AND DEVELOPMENT

Land acquisition continues to be an important aspect of the NVCA's work, with the aim of protecting natural heritage and seeking spaces and opportunities for people to enjoy the beauty and diversity of our watershed.

The NVCA celebrated another milestone in 2010 – 40 years of involvement in the Minesing Wetlands. Nearly 10,000 acres of this internationally significant wetland has been acquired by the NVCA

and enjoyed by thousands of visitors.

Nature Conservancy Canada has been a major partner in the acquisition, rehabilitation and protection of this land, and they describe the NVCA's Minesing



Enjoying the beauty of the Minesing Wetlands by canoe.



Wetlands as seen from the waterfowl viewing platform.

Wetlands program as one of the most successful and longest running in North America.

In 2010, the NVCA received its first piece of land in the Town of Mono. The Mason family made an EcoGift to the NVCA consisting

of 9 acres of Upper Nottawasaga River frontage. The land is being used for study including monitoring vegetation and water quality.

An additional 75 acres of land in the Town of New Tecumseth was donated in 2010. The Saunders family donated the land so that the wildlife habitat would be preserved, and the land could be enjoyed by the public.

FORESTRY PROGRAM

The key objectives of the NVCA's forestry program are to provide tree planting services to private landowners, approve managed forest plans, identify and manage funding opportunities to offset tree planting costs and to hold an annual Arbour Day Tree Sale. They also conduct seed collection and forecasting, and must anticipate demand four years in advance of each planting season.

The NVCA's program to assist landowners in planting large quantities of trees (minimum 1,500) continues to be in very high demand. The 2010 tree planting

season was sold out in October 2009, and by the end of 2009 there were already 21 landowners awaiting site visits for 2011 planting. Approximately 110,000 trees were planted in 2010 via this program. The trees must be planted within a four-week window each year to ensure optimal survival rates.

The program also conducted a successful 21st Annual Arbour Day Sale. Visitors to the sale received a special 50th anniversary gift of a tree seedling and a bookmark with a plantable portion containing flower seeds.



Attendees get great deals on native plants at the Arbour Day Tree Sale.

FLOOD FORECASTING

The winter of 2009-10 generally saw warmer temperatures and less snowfall than average, as characterized by an "El Nino" weather pattern. A total of only eight flood-related messages were issued by the NVCA in 2010.

By March 1, the snowpack had accumulated enough water equivalent to potentially cause a flood under the right conditions. The spring runoff began with above-freezing temperatures for a continuous four-day period with no rain. This allowed a good percentage of the available water to begin working its way through the system. Then a weather event occurred resulting in up to 30 mm of rain falling on the watershed, and

triggering flooding in areas that are usually wet in the spring; however, widespread damages did not occur.

The summer of 2010 saw higher rainfall amounts than average but no flooding was reported.

Also noteworthy was a snow squall event in early December that resulted in enormous amounts of snow in parts of the watershed including Collingwood,

Wasaga Beach and Beeton. The year ended with a warming trend that saw some of this snow melt.



A gauge shelter on Bailey Creek near Beeton.

PLANNING PROGRAM REVIEW

The NVCA continues to play an important role in the municipal land use planning process. Periodic reviews are undertaken to ensure the planning program is as efficient and effective as possible.

A third-party review of the program was undertaken in the summer of 2010. A Request for Proposals for the consulting service was issued, and Karen Wianecki, Director of Practice, Planning Solutions Inc., was retained to perform the review.

On September 17, Ms. Wianecki presented her findings to the NVCA Board, including a number of recommendations for service improvement. The report was reviewed by the CAO/Secretary-Treasurer and NVCA planning and technical support staff. The Director of Planning delivered a report at

the December 10th Board meeting, outlining how the department would implement the recommendations, including short-term and long-term priority actions and a schedule for completing them.

It was determined that the following short-term actions could be undertaken using existing resources:

- improve regulation mapping and make available to watershed municipalities
- implement a triage approach to more quickly deal with requests and applications
- revise the NVCA website to improve usability, and develop a communication strategy to help improve understanding between the NVCA and clients/partners

- ensure municipalities are aware of the complete list of works not requiring NVCA permit approval
- continue to ensure a consistent NVCA position when dealing with all planning clients

Longer-term actions will require additional resources and/or training, and include things such as seeking additional opportunities to establish long-term partnerships with municipalities and other players in the planning industry.

In her report, Ms. Wianecki commended the NVCA for initiating the review, and stated that it was her hope that this and future periodic evaluations would ensure that "the services offered by the NVCA continue to remain robust, relevant, reflective and broadly supported."

GROWING DEMAND FOR EDUCATION AT THE TIFFIN

The NVCA's education staff continue to reach out to all area schools with a wide range of environmental, outdoor and outreach programs. Each season brings new opportunities for program development and curriculum-based programming both on and off the Tiffin Centre site. Student numbers are climbing, and in 2010 more than 6,500 students visited – just over

1,000 more than in 2009.

In addition to schools, the programs are used by groups such as Girl Guides and Boy Scouts, daycares and day camps.

A new bus subsidy program funded by Sinton Transportation and the Rotary Club of Barrie was introduced in late 2009 and came into full effect in 2010. By reducing the cost of bus transportation by half, the program ensures that more schools are able to take advantage of educational opportunities at the Tiffin Centre. In its first season



Students from West Bayfield Elementary School in Barrie learn wilderness survival skills.

NVCA'S SUGAR HOUSE NOW OPERATES ON SOLAR POWER

The Tiffin Centre has been home to a variety of innovative projects and programs over its 37-year history. 2010 saw the introduction of a new 'Green Energy' project developed in partnership with the Rotary Club of Barrie and Wallwin Electric. A solar-powered battery shed was constructed and equipped with state-of-the-art solar energy collectors (photovoltaic cells), which send electrons to be stored in large batteries. The shed began operating

in August 2010, supplying all the electricity needed to operate Tiffin's maple syrup production process.

The solar shed serves as a real-life working model of renewable energy, with a large viewing window to give students and other visitors the opportunity to see first-hand how the sun's energy can be used for our electrical needs, such as lighting and running appliances.

(up to April 30, 2010), the program assisted more than 1,700 students from 31 area schools.



Students from Assikinack Public School in Barrie take a trek on snowshoes.



The Rotary solar shed is both functional - for powering the sugar house - and acts as a living model for educational purposes.

ENCOURAGING YOUNG CONSERVATIONISTS

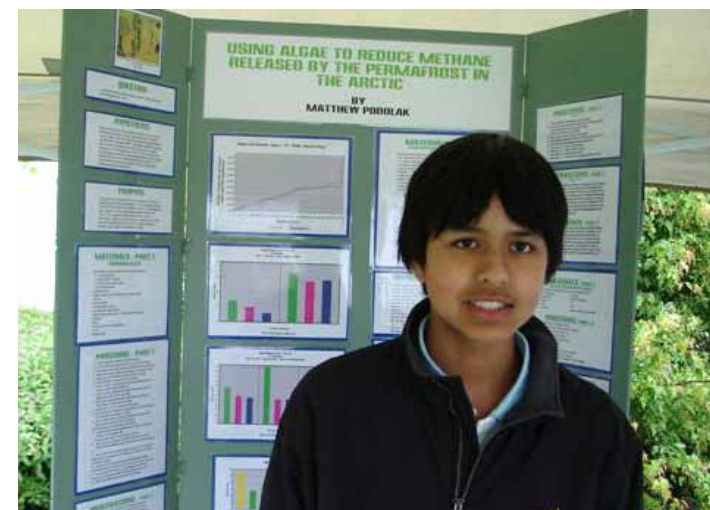
The NVCA's education program introduced a new science fair award in 2010, to be given to a student at the Simcoe County Regional Science & Technology Fair held each year in April. The award is presented to a student whose entry exemplifies the application of practical methodology to environmental concerns.

This year's winner was Matthew Podolak, a student from Holly Meadows Elementary School, who won for his experiment titled "Using Algae to Reduce Methane Released by Permafrost in the Arctic."

Matthew and his family received

an annual pass to the NVCA's conservation areas, and Matthew was invited to join the NVCA at Barrie EcoFest.

Matthew went on to represent Simcoe County at the Canada-Wide Science Fair, where he received an "Honourable Mention: Earth & Environmental Science."



Matthew Podolak gets the chance to show off his work to the public in the NVCA booth at Barrie EcoFest in June 2010.

ACTIVITIES AND EVENTS

Special events continue to be an important way to bring visitors to the NVCA's conservation areas for recreation and outdoor education.

The second annual Family Day event at the Tiffin Centre was a huge success, generating significantly more interest than anticipated. Approximately 850 people attended and took part in activities including

snowshoeing, kick-sledding, geocaching and skating.

The Spring Tonic maple syrup festival is the NVCA's most popular event, with over 1,700 people attending in 2010.

The Tiffin Centre also invited the public to celebrate Earth Day this year with a native plant craft, nature hike and "frog symphony".

The Nine Mile Portage Heritage Festival is always an exciting time to visit Fort Willow, and this year's event included guided and independent hikes, military re-enactors, cannon



Checking on the sap at Spring Tonic.

and musket firing demonstrations, a scenic horse-drawn wagon ride, a Six Nations presentation and Native drumming, and a variety of other authentic demonstrations and hands-on activities for all ages.



Young "recruits" learn to march with re-enactors at Fort Willow.

NVCA Watershed Map



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