

2007 Manitoba Envirothon Final Report



2007 Manitoba Envirothon Winning Team
Northwest Soil Management Association Team from Swan River

Executive Summary

For the past eleven years the Manitoba Forestry Association, along with its partners and funders have been the proud host of the Manitoba Envirothon. In 2007 twenty-nine teams competed in Brandon for the chance to represent Manitoba at the 2007 Canon Envirothon in Geneva, New York.

The theme for 2007 of Alternative and Renewable Energy was particularly relevant to Manitoba. Teams had a number of opportunities to explore this theme. We contracted a researcher/writer to compile the Manitoba Envirothon's first ever "mini-textbook" on the theme topic. After a number of months with this resource teams participated in a workshop in St. Leon, Manitoba. Teams heard presentations from experts in the alternative energy field, visited a wind turbine, and spent the day being "blown away" by hands-on training sessions. It was a very windy day in St. Leon!

The Manitoba Envirothon took place in Brandon from May 24-26, 2007. The teams were housed and fed at Brandon University. After an evening of creative, ice-breaking team introductions teams had a good nights sleep before the vigorous field test at the Riverbank Discovery Centre in Brandon. The following day teams prepared and delivered their oral presentations about creating a renewable energy plan for a fictional sub-division.

After the scores from the field test and oral competition were calculated the winning team was the Northwest Soil Management Association team from Swan River. This is the sixth time that a team from Swan River represented Manitoba at the Canon Envirothon. They place 8th at the event and each team member received a cheque for \$1200.

This is the first year that the Manitoba Envirothon has had a full-time coordinator. With this additional human resource power the Manitoba Forestry Association has begun work on expanding the Envirothon program to reach new schools, new teachers and more students. This work will continue in 2007/2008 with a focus on developing an outreach program to Northern Manitoba and begin developing a middle-school program.

The 2008 Envirothon theme is "recreational impacts on natural resources". The Steering Committee chose Pinawa, Manitoba as the location for the 2008 event. The Committee has made two site visits to the area and have already received tremendous support from the community. We look forward to working with volunteers from the Pinawa area and to recruiting a team from the Pinawa High School and teams from the surrounding area who have never competed in the event.

The success of the Envirothon program is largely due to the commitment, passion, and endless energy of our numerous volunteers, partner organizations, and funders. We look forward to continuing and strengthening our relationships with these partners in environmental education.

Table of Contents

1.	2007 Summary	4
1.1.	New for 2007	4
1.1.1.	Full-time coordinator	4
1.1.2.	Website	4
1.1.3.	Theme binder	4
1.1.4.	Mini-Envirothon at Oak Hammock Marsh.....	5
1.1.5.	Diversity Grant	5
2.	Steering Committee.....	5
3.	Thank you to Sponsors	6
4.	Competing Schools	8
5.	Envirothon Workshop.....	9
5.1.	Event Schedule	10
5.2.	Thank you to our presenters	11
5.3.	Thank you to workshop volunteers.....	11
5.4.	Evaluations	12
5.5.	Media coverage.....	12
6.	2007 Manitoba Envirothon Competition	13
6.1.	Event Schedule	14
6.2.	Thank you to Volunteers	15
6.2.1.	Volunteer Comments	16
6.3.	Evaluations	17
6.4.	Media Coverage	17
7.	Financial Statement.....	18
8.	Recommendations and plans for 2008	19
8.1.	Recommendations	19
8.2.	Plans for 2008	19
8.2.1.	Envirothon Course	19
8.2.2.	Northern Program	20
8.2.3.	Middle School Program.....	20
8.2.4.	Committee Capacity Building	20
8.2.5.	Promotion and Awareness	20

1. 2007 Summary

In June of 2006 the Manitoba Forestry Association hosted an Envirothon focus group with more than twenty volunteers and staff. A number of recommendations emerged from this focus group. The focus group participants identified the need for a full-time coordinator and long term funding as two limiting factors that would need to be addressed by the MFA if an expansion of the Manitoba Envirothon is considered.

They also identified the need to increase the number of students who are able to participate in the program each year. The following four potential new programs were recommended to reach more students:

1. Regional Competitions
2. Creating an Envirothon Course that can be used in the high school curriculum
3. Northern Outreach
4. Middle-school program

Each of these programs requires staff time; involves developing new partnerships; finding additional funds; and reaching new teachers and students across the province.

Work on these projects began in the 2006/2007 year and plans to continue this work during the 2007/2008 year will continue in September.

1.1. New for 2007

1.1.1. Full-time coordinator

In the fall of 2006, the Manitoba Forestry Association hired a full-time coordinator for the Envirothon program. This move reaffirms our organization's commitment to the Envirothon and provides the human resources to expand the program.

1.1.2. Website

The Manitoba Forestry Association has always included information about Envirothon on our website however this year we have given the program a greater profile with its own website at www.mbenvirothon.com. Although, this website was used by some participants it was not as well viewed as we had hoped. In 2007-2008 the Manitoba Envirothon will become a prominent feature of the Manitoba Forestry Association website.

1.1.3. Theme binder

In the summer of 2006, we contracted with Jeff Cottes to write the theme binder on Renewable and Alternative Energy. Using the learning objectives outlined by the New York Envirothon committee, Jeff compiled Manitoba

specific information into a mini-text book. Based on the feedback at the teacher debrief, this format of resource material was well received by the teams. Once again we received some feedback about the volume of materials that students are expected to learn. The committee will be contacting a number of teachers who indicated they would be willing to help modify the resource binders for 2008.

We will also be hiring another researcher/writer to develop the theme binder for 2008.

1.1.4. Mini-Envirothon at Oak Hammock Marsh

In January 2007, Oak Hammock Marsh Interpretive Centre launched a program called Mini-Envirothon. This program is based on the field test component of the Manitoba Envirothon. Students work in teams to complete hands-on stations. The Mini-Envirothon was delivered as in-class presentations in both rural and urban schools. In total 461 students participated in the Mini-Envirothon program. We will continue to work with Oak Hammock Marsh Interpretive Centre on innovative ways to deliver environmental education in Manitoba. The complete report from Oak Hammock Marsh Interpretive Centre can be found in Appendix A.

1.1.5. Diversity Grant

In the winter of 2006 we were awarded a \$5,000 Diversity Grant from Canon Envirothon. The grant was used for a number of projects that we hope will help us expand the Envirothon program into Northern Manitoba communities. A small group of volunteers met to discuss expanded the program into Northern Manitoba. Based on this discussion it was decided that a good place to start would be to develop an Envirothon Course so that teams could receive a high school credit for their participation. In May we contracted a teacher from Cormorant Lake to write the course that focuses on the 2008 theme and on using traditional ecological knowledge. Jaqueline Montieth will also pilot the course during the 2007/2008 school year.

Loraine Gowanlock, a science consultant with the Frontier School Division and a long time supporter and volunteer with the Manitoba Envirothon also worked hard to recruit three new teams from Northern Manitoba. Based on her feedback these teams had a very positive experience.

2. Steering Committee

Much of the success of the Manitoba Envirothon is attributed to the high level of commitment and enthusiasm that our Steering Committee volunteers give to the program each year. A number of our volunteers have been with the program since its inception in 1996. Each of our committee members takes the lead of a sub-committee or participates on one of the sub-committees. The Steering Committee met monthly from September 2006 to May 2007. A wrap-up meeting was held in early June to debrief the event and to begin planning for 2008.

2007 Steering Committee Members:

Jim Potton	Retired	Co-Chair
Glenn Peterson	Manitoba Conservation- Forestry Branch	Co-Chair
Dianne Beaven	Retired	Member-at-large
Gil Godard	Manitoba Hydro	Logistics
Brendan Carruthers	Manitoba Hydro	Logistics
Lisa Tack	Manitoba Water Stewardship	Workshop Co-Chair
Laureen Janusz	Manitoba Water Stewardship	Field Test Co-Chair
David Hay	Manitoba Water Stewardship	Field Test Co-Chair
Christine Tymchak	Manitoba Conservation- Wildlife Branch	Member-at-large
Cathy Shaluk	Nature Conservancy of Canada	Member-at-large
John Sinclair	University of Manitoba	Orals Committee Co- Chair
Bob Austman	Manitoba Model Forest	Orals Committee Co- Chair
Michele Kading	Oak Hammock Marsh Interpretive Centre	Mini-Envirothon Liaison Member-at-large
Allen Tyrchniewicz	Tyrchniewicz Consulting	Member-at-large
Byrnes Benoit	Spectra Productions	Media & Communications

3. Thank you to Sponsors

Each year the Manitoba Envirothon begins the challenge of securing funding for the program. In addition to approaching long time private industry funders we also approach new organizations who may relate to the current theme or because we are holding the event in their community.

In the fall of 2006 the Manitoba Envirothon submitted a discussion paper to the "Provincial Greening Committee" which is comprised of the deputy ministers from at least five departments. This discussion paper was circulated to the departments however the provincial election was called shortly after our submission. Both Manitoba Water Stewardship, through their Fisheries Enhancement Fund and Manitoba Agriculture and Rural Food Initiatives, through their Covering New Ground Fund committed funds to the program. However, we needed to continue our planning for the event without hearing from the other departments.

Sponsors were recognized in the event program, on the event t-shirts, and were mentioned at the event itself.

*The following organizations provided funding for the
2007 Manitoba Envirothon:*

Canadian Institute of Forestry – MB Section
Canon USA
Canon Canada
Canon Envirothon
Jiffy Canada Incorporated
Jim & Myrna Potton
Louisiana Pacific Canada
MacKenzie Seeds
Manitoba Aboriginal and Northern Affairs
MB Agriculture, Food and Rural Initiatives-Covering New Ground
Manitoba Conservation
Manitoba Education, Youth and Citizenship
Manitoba Hydro
Manitoba Model Forest
MB Science, Technology, Energy and Mines
Manitoba Water Stewardship-Fisheries Enhancement Fund
Spruce Products Limited
Youth in Philanthropy – Argyle Alternative High School

*The following organizations provided in-kind support for the
2007 Manitoba Envirothon:*

Assiniboine Community College
Canadian Forestry Association
City of Brandon
Ducks Unlimited Canada
Economic Development Brandon
Faculty of Science, Brandon University
Frontier School Division
General Wolfe School
Husky Oil Marketing
KBM Forestry Consultants Inc.
Louisiana-Pacific Canada Limited
Manitoba Agro Woodlot Program
Manitoba Agriculture, Food and Rural Initiatives
Manitoba Conservation Districts
Manitoba Habitat Heritage Corporation
Manitoba Hydro
Manitoba Model Forest
Manitoba Conservation – Forestry Branch
Manitoba Water Stewardship

Manitoba Conservation – Wildlife and Ecosystem Protection Branch
Manitoba Intergovernmental Affairs
Manitoba Naturalist Society
Nature Conservancy of Canada
ND LEA Inc.
North Dakota Forest Service
Oak Hammock Marsh Interpretive Centre
Plus4 Consulting
Prairie Rose School Division
Raven Renewables
Spectra-Productions Ltd.
Tembec – Pine Falls Operation
TetrES Consultants Inc.
Tyrchniewicz Consulting
Natural Resource Institute-University of Manitoba

*The following organizations provided prizes for the
2007 Manitoba Envirothon:*

Manitoba Conservation – Forestry Branch
Manitoba Water Stewardship
Manitoba Conservation – Wildlife and Ecosystem Protection Branch
Turtle Mountain Conservation District
Inland Aggregates Limited
Louisiana-Pacific Canada Limited
Fisheries and Oceans Canada
Tembec Inc –Pine Falls Operations
Ducks Unlimited Canada
Spruce Products
Manitoba Conservation – Pollution Control Branch
Environment Canada

4. Competing Schools

*The following organizations sponsored a team for the
2007 Manitoba Envirothon:*

Pembina Valley Conservation District
Sequoia Energy Inc
LaSalle Redboine Conservation District
East Interlake Conservation District
Cooks Creek Conservation District
Northwest Soil Management Association
Turtle Mountain Conservation District

The following teams competed in this year's event:

Baker School, MacGregor
College Jeanne-Sauve, Winnipeg
College Silver Heights Collegiate, Winnipeg
Cooks Creek Conservation District Team, Oakbank
Comorant School, Cormorant Lake
Deloraine School, Deloraine
East Interlake Conservation District Team, Gimli
Fairholme School, Portage la Prairie
Fort Richmond Collegiate, Winnipeg
Gimli High School, Gimli
Helen Betty Osborne Ininiw Education Resource Centre,
Norway House
J.H. Bruns Collegiate, Winnipeg
LaSalle-Redboine Conservation District Team, Portage la Prairie
Lord Selkirk Regional School Teams 1 & 2, Selkirk
Maple Grove Colony School, Lauder
Neepawa & Area Collegiate Institute, Neepawa
Northwest Soil Management Association Team, Swan River
Oak River Colony School, Oak River
Pembina Valley Conservation District Team, Manitou
R. D. Parker Collegiate Teams 1 & 2, Thompson
Sequoia Energy Inc. Team, Manitou
Shaftesbury High School, Winnipeg
Swan Valley Regional Secondary School , Swan River
Vincent Massey Collegiate Teams 1 & 2, Winnipeg
West Lynn Heights, Lynn Lake
Westwood Collegiate, Winnipeg

5. Envirothon Workshop

The 2007 Manitoba Envirothon Workshop was held in St. Leon Manitoba. Twenty-eight teams attended the workshop. The Steering Committee quickly learned why St. Leon was chosen for Manitoba's first wind turbine farm! The day was beautiful but the wind proved to be a challenge for the presenters who had hands-on materials. In true form our volunteers adapted to the situation and developed ways to make the best of the windy locale.

As a pilot, we had the workshop professionally video-taped. The wind also presented a challenge for the video but we did manage to capture a number of the training sessions. A DVD was circulated to all the teams along with some additional materials from the presenters. Based on the evaluations from the students and teachers, most indicated that they would prefer to attend the workshop in person or also receive a DVD. Of those who indicated that they would rather only receive a DVD they indicated that this is a

preferred option so that we reduce the amount of energy and greenhouse gases-a point well taken!

5.1. Event Schedule

	9:30	Teams Arrive at St. Leon	
9:30	10:00	Team Registration & Snacks (St. Leon Community Hall)	
10:00	10:20	Welcome (St. Leon Community Hall)	
10:20	10:35	Walk to Training Locations	
10:35	12:10	Topic Training: soils, forestry, wildlife, aquatics, energy Group A	Alternative & Renewable Energy Presentations Group B
12:10	12:20	Walk to St. Leon Community Hall	
12:20	1:20	Lunch and Tour of Wind Turbine	
1:20	1:30	Walk to Training Locations	
1:30	3:00	Topic Training: soils, forestry, wildlife, aquatics, energy Group B	Alternative & Renewable Energy Presentations Group A
3:00	3:10	Walk to St. Leon Community Hall	
3:10	3:30	Closing Remarks & Snacks to go	
	3:30	Teams Leave St. Leon	

5.2. Thank you to our presenters

We would like to extend a special thank you to all of our presenters who took the time to travel to St. Leon, deliver presentations, and provide supplementary material to the students.

Theme :

Reed Winstone, Manitoba Hydro (wind)
Rick Halas, Manitoba Science Technology Energy and Mines (wind)
Carol Gunvaldsen, Manitoba Agriculture, Foods and Rural Initiatives (biofuels)
Mark Kleinsasser, Manitoba Geothermal Alliance (geothermal)
Gerard Paradis, Manitoba Geothermal Alliance (geothermal)

Forestry:

Glenn Peterson, Manitoba Conservation-Forestry Branch
Rebecca McKay, Manitoba Conservation-Forestry Branch
Andrea Kraayeveld, Manitoba Forestry Association

Soils & Land Use:

David Hay, Manitoba Agriculture, Rural and Food Initiatives
Elaine Gauer, Manitoba Water Stewardship
Tyler Kneeshaw

Wildlife:

Christine Tymchak, Manitoba Conservation-Wildlife Branch
Cathy Shaluk, Nature Conservancy of Canada
Dean Berezanski, Manitoba Conservation-Wildlife Branch
Janine Caillier, St. Leon Centre d'Interpretation

Aquatics:

Lisa Tack, Manitoba Water Stewardship
Laureen Janusz, Manitoba Water Stewardship
Martin Erickson, Manitoba Water Stewardship
John Shearer, Department of Fisheries and Oceans

5.3. Thank you to workshop volunteers

An event such as the workshop would not be possible without the help of many volunteers. We would especially like to thank the following people:

- Lucie Toupin, Janine Caillier, and Lucille Dufresne-Labossiere from the community of St. Leon and the St. Leon Interpretive Centre who helped us organize the logistics of the event.
- Maurice Hince who spoke on behalf of Economic Development Council for Manitoba Bilingual Communities.

- Jim Duff from Algonquin Power who gave the teams a wind turbine tour.
- Lisa Tack and Brendan Carruthers for taking the lead with planning the workshop.
- Gil Godard who coordinated the logistics of food and portable toilets.
- Fairholme Colony who prepared and served a delicious lunch and snacks.
- Jeff Cottes, Allen Tyrchniewicz, and Potton for coordinating the theme presenters.
- Lorraine and Ron Gowanlock for assisting with registration and set-up.
- Amie and Kate Peterson for assisting throughout the day.
- Patricia Pohrebniuk and Andrea Kraayeveld for all of their assistance with the Envirothon program.

5.4. Evaluations

Overall, the evaluations from students and teachers were positive. Generally, the students indicated that they did feel that they are better prepared for the competition after attending the workshop. They also indicated that they would prefer to attend the workshop in person and a number indicated that they would also like to have the DVD. A fair number of students indicated that they would prefer to have a mini-field test at the workshop and the individual topic training was the most useful part of the day.

Despite our best attempts to make the workshop even more hands-on than in the past we still received a number of comments that they would like to have more interaction.

The majority of the teachers who completed an evaluation prefer to observe the students rather than having a workshop specifically for them.

A more thorough summary of the workshop evaluations can be found in Appendix B.

5.5. Media coverage

The local paper covered our workshop. The article can be found in Appendix C.

6. 2007 Manitoba Envirothon Competition

Twenty-nine teams competed in the 2007 Manitoba Envirothon that was held in Brandon, Manitoba. The theme for 2007 was "alternative and renewable energy". The teams and volunteers were housed and fed at Brandon University. We had a great experience working with Brandon U staff and at the end of the event we presented them with a framed wildlife print.

On Thursday evening the teams registered and then entertained each other with their team introductions. The teams were exceptionally creative and all showed a little of their personality to break the ice.

On Friday, the weather was perfect for the field test which was held at the Riverbank Discovery Centre. The staff at the Discovery Centre was exceptionally helpful and accommodating. We also received a lot of support from the City of Brandon. They provided picnic tables, garbage cans, a golf cart, and arranged to dig the soil pit.

We would also like to recognize the Manitoba Conservation office in Brandon who provided ATVs and Manitoba Conservation, Operations Divisions-Fire Program who provided the tent and radios.

Fairholme Colony provided the lunch and supper-delicious as usual. A note for future years is that we ran out of the main entrée before all of the volunteers had a chance to eat.

Friday night the students and teachers viewed two cbc videos on the theme topic of creating sustainable cities. There was a short question and answer period before the teams participated in a trading session. This is always an intense and chaotic time that the students seem to enjoy. A number of students requested that we have a space for recreation during their free time.

On Saturday, teams were given the Orals Scenario and they had two and a half hours to prepare their response. While the students were preparing for the orals, the teachers participated in a debriefing with members of the field test committee. Members of the committee reported that teachers were generally very positive about the test and the event in general.

Two suggestions for the orals were:

- to provide a more detailed training session in public speaking at the workshop
- to provide a brief training session on how to use the microphones for the top four teams

The results of the competition are:

1 st Place	Northwest Soil Management Association Team
2 nd Place	Fort Richmond Collegiate
3 rd Place	J.H. Bruns Collegiate (Rookie Team!!)
4 th Place	Swan Valley Regional Secondary School
Excellence Theme	Fairholme Colony School
Excellence Wildlife	Baker Colony School
Excellence Aquatics	Lord Selkirk School Team #1
Excellence Soils	Vincent Massey Collegiate Team #1
Excellence Forestry	RD Parker Collegiate-Thompson Treehuggers #2
Excellence Orals	Vincent Massey Collegiate Team #2

Once we had compiled the scores, the Northwest Soil Management Association team from Swan River took first place with a score of 82.6%. The winning team attended the 2007 Canon Envirothon in Geneva, New York. This is the sixth time a team from Swan River has competed at a Canon Envirothon. In 2007 they placed 8th overall and each team member received a cheque for \$US1200-Congratulations!

6.1. Event Schedule

Thursday, May 24th

4:00-6:00 p.m.	Arrival and Registration
5:30-7:00 p.m.	Dinner (Cafeteria)
7:00-10:00 p.m.	Welcome and Introductions (Cafeteria) Team Introductions Socializing

Friday, May 25th

7:00 a.m.	Breakfast (Cafeteria)
8:00-8:30 a.m.	Teams bussed to trail testing site
8:30-9:00 am	Teams assigned to Trail Guides
9:15 a.m.	Trail Testing begins
12:20 noon	Lunches for teams & volunteers at Trail Testing Site
1:00 p.m.	Reassemble and return to trail
1:30 p.m.	Trail testing resumes
4:30-5:30 p.m.	Supper at Trail Testing Site
5:30-6:00 p.m.	Teams, advisors bussed to Brandon University
7:30 p.m.	Oral preparation for teams and advisors (Theatre A)
8:30 - 10:00 p.m.	Trading Session, recreation and socializing (Theatre A)

Saturday, May 26th

7:00 a.m.	Breakfast (Cafeteria)
8:15-8:30 a.m.	Team Orientation to Oral Competition (Cafeteria)
8:30-11:00 am	Team preparation for Orals
9:00-11:00 a.m.	Test review & debriefing for Advisors
11:00-11:45 a.m.	Lunch for Teams and Advisors (Cafeteria)
12:00-1:40 pm	Preliminary Oral Presentations (Brodie Science Centre)
2:15-2:30 p.m.	Announcement of finalists (Cafeteria)
2:30-4:00 p.m.	Final Orals (Cafeteria)
4:00-5:00 pm	Dinner (Cafeteria)
5:00-5:45 p.m.	Awards and Closing (Cafeteria)
6:00 pm	Departure

6.2. Thank you to Volunteers

Each year many volunteers commit time and energy to help us make this event a huge success. In the past volunteers have told us that participating in Envirothon is the highlight of their year!

Bob Austman
Edna Aytona
Bill Baker
Ernie Bart
Dianne Beaven
Byrnes Benoit
Dean Berezanski
Rachel Boone
GarethBoys
Chris Budiwiski
Brendan Carruthers
Vicki Cole
Jeff Cottes
Shauna Da Costa
Wayne Digby
Nancy Dyck
Raymond Dyck
John Dyck
Susan Eros
Rob Eros
Glenda Fauske
Elaine Gauer
Gil Godard
Gordon Goldsborough
Lorraine Gowanlock

Marilena Kowalchuk
Don Labossiere
Denise Levesque
Jennifer Lidgett
Bev MacKenzie
Bob MacKenzie
Kyla Maslaniec
Mona Maxwell
Keith McGregor
Rebecca McKay
Amie Melnychuk
Debra Parker
Kent Pearce
Terry Pearce
Glenn Peterson
Patricia Pohrebniuk
Jim Potton
Myrna Potton
Nanci Potton
Nicole Rabe
Ian Ripley
Brenda Robinson
Cathy Shaluk
John Shearer
John Sinclair



Our youngest volunteer- Ayla Cottes, was only 3 weeks old when she attended her first Envirothon!

Ron Gowanlock
Carol Graham
Donald Harron
David Hay
Veronica Hicks
Drew Hoysak
Laureen Janusz
Michele Kading
Barb Kingdon
Tyler Kneeshaw
Andrea Kraayeveld

Murray Smith
Leanne Sprung
Kevan Sumner
Andrea Swain
Lisa Tack
Christine Tymchak
Allen Tyrchniewicz
Barry Waito
Rudy Wall
Jenna Walker

We would like to recognize the following volunteers who have given us 10 years of time and support:

Bill Baker
Dianne Beaven
Brendan Carruthers
Bev MacKenzie
Bob MacKenzie
Glenn Peterson
Jim Potton
Myrna Potton
John Sinclair

Special thank you to Susan Eros of Environment Canada for attending the Saskatchewan Envirothon Workshop and to Lise Boiteau of Parks Canada for attending the Saskatchewan Envirothon.

6.2.1. Volunteer Comments

Volunteers (32 evaluations completed)

- All of the volunteers indicated they would like to participate in the Envirothon program again in the future.
- Many volunteers indicated that the correspondence was clear and useful but a number indicated that they would have like the information earlier.
- At least two judges indicated the orientation could be shortened.
- Many judges said they were approached or heard about Envirothon through work colleagues.
- At least three judges had ideas about how to refine the rubric for scoring (Andrea Swain will follow-up with these judges in the fall to ask for their ideas prior to the first oral committee meeting).
- At least 1/3 of the volunteers mentioned that meeting and networking with other professionals was a major benefit for them.
- Two judges were interested in finding a way to invite the public to view the oral presentations.

- A number of volunteers indicated that “every year the planning gets better” and all of them indicated that the event was very well organized.

6.3. Evaluations

Ninety-four students completed an evaluation form. A number of highlights from the evaluations include:

- The students were divided almost exactly in half about the issue of whether they would rather receive a hard copy or a paper copy of the resource materials.
- $\frac{3}{4}$ of the students found the workshop to be helpful in preparing for the event
- just under $\frac{1}{2}$ of the students indicated that the resource materials were the most helpful in preparing for the field test
- 91 out of 94 students indicated that they found the orals presentation to be a worthwhile and educational experience
- $\frac{1}{2}$ of the students indicated they didn’t start studying the materials until 2nd term and $\frac{1}{4}$ indicated that they didn’t start studying until the ride to Envirothon
- 20 out of 22 teachers indicated they received the resource materials early enough in the school year
- 16 teachers indicated that they do not like the idea of regional competitions

Some comments from participants were:

“Great Work! One of the best I have been to!”

“Thank you so much! Our students come back years after graduating, re-telling stories of the fantastic time and memories they acquired at Envirothon.”

“Program is a very good fusion of all the high school courses and teachers teamwork, cooperation, healthy debate and work ethic.”

“I have never seen another high school program that has the educational benefits of the Envirothon.”

A summary of the evaluations can be found in Appendix D.

6.4. Media Coverage

The Brandon Sun and the local radio station covered the event. An article from the Brandon Sun can be found in Appendix E.

7. Financial Statement

2006 - 2007 Manitoba Envirothon

INCOME

Prov. Govt. Sources	
Covering New Ground	\$ 2,670.00
Fisheries Enhancement Initiative	\$ 10,800.00
Corporate & Non-Govt. Sources	
Manitoba Hydro	\$ 5,000.00
Louisiana-Pacific Canada	\$ 1,000.00
Spruce Products	\$ 500.00
Individual	\$ 100.00
Canadian Institute of Forestry	\$ 200.00
The Winnipeg Foundation (Youth in Philanthropy)	\$ 1,000.00
Jiffy Canada	\$ 2,200.00
Manitoba Model Forest	\$ 2,000.00
Canon	
Canon Canada Mini Grant	\$ 500.00
Canon Envirothon Mini Grant	\$ 1,312.50
Canon Envirothon Diversity Grant	\$ 5,000.00
Team Registrations	
Primary Team	\$ 12,000.00
Second Team	\$ 5,250.00
Workshop	
Registrations	\$ 1,520.00
2006 Canon Envirothon	
Coordinator	<u>\$ 20,000.00</u>
TOTAL INCOME	\$ 71,052.50

EXPENSES

Workshop	
Facility	\$ 440.00
Food	\$ 3,323.96
Equipment (Equip., Potties, etc.)	\$ 259.70
DVD	\$ 2,031.74
Competition	
Accommodation & Facility Rental	\$ 10,326.77
Food	\$ 17,028.83
Equipment	\$ 638.45
Awards	\$ 214.24
Porta-Potties	\$ 641.30
T-Shirts	\$ 2,713.86
St. John's Ambulance	\$ 300.00
Canon Envirothon	
Canon Membership	\$ 234.64
Canon Competition Registration	\$ 869.04
Travel Assistance	\$ 2,000.00
Learning Materials	
Contracts	\$ 2,000.00
Materials	\$ 30.09
Envirothon Course	\$ 2,400.00
Web Site	
Dev. Costs	\$ 270.30
Administration	
Coordinator	\$ 23,982.29
Materials, supplies, & Postage	\$ 897.85
Gifts	<u>\$ 31.09</u>
TOTAL EXPENSES	\$ 70,634.15
BALANCE	\$ 418.35

8. Recommendations and plans for 2008

The 2008 Envirothon theme is "recreational impacts on natural resources". The Manitoba Envirothon Steering Committee chose Pinawa, Manitoba as the location for the 2008 event. Teams will be housed and fed at the Wilderness Edge Retreat & Conference Centre. The Committee has made two site visits to the area and have already received tremendous support from the community. We look forward to working with volunteers from the Pinawa area. We also look forward to recruiting a team from the Pinawa High School and teams from the surrounding area who have never competed in the event.

8.1. Recommendations

Some interesting ideas arising from the evaluations were:

- bring in a professional at the very end to present on the orals scenario
- provide a small hand-out to volunteers on the trail so that they have something to give the public when they are approached
- provide the rules and procedures manual in a package when teams register
- help teams set-up mock orals
- consider how to rework the resource materials (ie: recruit teachers to help)
- have an ELA teacher review the test and oral question to ensure literacy and comprehension are at appropriate levels for all participants
- make more promotional materials for teachers to use to recruit team members
- provide a gym or recreation space for free time

8.2. Plans for 2008

We have a number of plans for the 2007/2008 year. Our full-time coordinator will be busy developing a 3-year strategic plan for the Envirothon program. Components of the plan are highlighted in this section.

8.2.1. Envirothon Course

The Envirothon Course has been finalized and a teacher from Cormorant Lake School will be piloting the course with her students. We will also be working on recruiting teachers from other schools from the Frontier School Division to use the course.

Our plan is to modify the course each year to reflect the current theme for each year and to adapt the resources the Manitoba Envirothon provides for each year.

8.2.2. Northern Program

We will continue the work we started on expanding the Envirothon program to Northern Manitoba. In addition to the three teams from the Frontier School Division and the two teams from Thompson who competed in 2007 we are looking forward to recruiting more teams. In addition to recruiting new teams, a small committee will be looking at additional opportunities for the Manitoba Envirothon to support the expansion of the program into new schools.

8.2.3. Middle School Program

As in jurisdictions across the United States, the Manitoba Envirothon will begin working on a modified version of the program for use in middle schools.

8.2.4. Committee Capacity Building

The coordinator will also spend some of her time developing tools that the committee can use. For example, a volunteer handbook for all new volunteers, a funder recognition program, a steering committee handbook, and a more refined budgeting and accounting system.

8.2.5. Promotion and Awareness

There are a number of opportunities for promoting the Envirothon program in 2007/2008. We will be presenting at the SAG conference in Winnipeg, we will have a display at the Science Council Youth Forum, and we will be attending the Manitoba Conservation District's annual conference.

We will also prepare a promotion package for new and interested schools that will contain a CD about the program, registration forms, tips on how to find a team sponsor, and other information to facilitate teacher participation.

As part of a larger project to revamp the Manitoba Forestry Association website, we will develop a revised version of the Envirothon website. The focus of this website content will be interactive materials for students and teachers.

Appendix A

Mini-Envirothon Summary prepared by staff at Oak Hammock Marsh Interpretive Centre

Mini-Envirothon program summary:

The Mini-Envirothon educational program was developed by the Oak Hammock Marsh Interpretive Centre, in consultation with the Manitoba Forestry Association (MFA). The program consisted of interactive stations on the topics of forestry, soils, aquatics and wildlife as well as a watershed component. As with Envirothon, students were given a time limit at each station, and scores were tabulated at the end of the program (the winning team receiving "fabulously cheap prizes"). Each participating class also received information on the Envirothon program to encourage participation.

The program was launched in January of 2007 with our Watershed Legacy II outreach program. Mini-Envirothon was delivered to several schools in various urban and rural communities including:

Boissevaine
Carberry
Brookdale
Neepawa
Plumas
Gladstone
Laurier (French)
Glenboro
Cypress River
Baldur
Crystal City



On April 11, the program was reviewed at the Centre by Andrea Swain and Jim Potten from the MFA.

Mini-envirothon was well received by both students and teachers, below are some evaluation comments:

Gladstone: rated every aspects 5 out of 5 - *"this was GREAT – students were really engaged"*

Crystal City: all 5's – *"works well with the grade 8 curriculum"*

Brookdale: all 5's – *"Fabulous job Thank you"*

We believe this program has been an excellent addition and will continue to be offered both on and offsite.

Appendix B Workshop Evaluation Summary

Students (89 out of 130 completed)

1. What was the most useful part of the day?

- The hands on work was very helpful in reminding how things are done
- The individual working in our special areas
- The most useful part was learning hands-on in our topics (35)
- The hands-on experience. Getting to use tools in small groups is the best and easiest way to learn.
- Aquatics invasive species
- Forestry workshop was extremely beneficial

What was the least useful?

- Presentations were somewhat dragged out
- Tour of the turbine (2)
- Alternative energy presentation

Please provide specific comments on the following:

Topic training session

- Most students indicated that these were very informative

Theme presentations

- Excellent
-

Tour of wind turbine

- Not very informative
- Not very exciting
- It was awesome
- Very cool. Learned a lot and had fun at it
- Very very very useful

Would you prefer to receive a DVD of the training sessions rather than attend the workshop in person?

- No (63)
- Getting together is better than just watching how it is done
- I enjoy getting away from school and socializing
- Yes (10)
- Both (10). Though I'd like a DVD of the training session, I'd also like to attend in person.

For those of you who attended the workshop last year, do you prefer having a mini-field test set-up at the workshop or do you prefer receiving a paper copy of a mock test that you can work on at home?

- Work on at home (8)
- At the workshop (25)
- Both would be nice (2).
- It is better to do it at the workshop so you can do the site specific work like identification
- The mini-field test was a good motivator

If you are a student, do you feel that you are better prepared for the Manitoba Envirothon in May now that you have attended the workshop?

- Yes (75)
- No (3)
- Yes (2)

What can we do to improve the workshop for next year?

- More cookies
- Breaks and more time to absorb the material
- I think we need to spend more time in our specific areas
- No comments. It was great
- More theme topic workshops
- Coffee at end of day
- Generally theme is that we still need to do more hands-on and make things more interactive.

Appendix C
Newspaper Article about the Envirothon Workshop

The Times, Treherne, Manitoba – Monday, April 30, 2007 Page 9

Spring Envirothon Workshop

from page 4

more about the wind turbines in preparation for the competition.

Schools are provided with resource materials based on forests, soils, water, wildlife and current environmental issues. This is supplemented by community involvement and support, in-school extra-curricular lectures by professionals and specific field trips to encourage hands-on activities.

The competition consists of two segments: a trail testing module and an oral presentation in front of a panel of judges. The

winner of the Manitoba Envirothon then have the opportunity to compete in a national Envirothon against teams from across Canada and the United States.

The community action component of the Envirothon encompasses voluntary ventures by participating schools to improve their local environment. Some of the activities the students participate in are tree planting, establishing nature trails, native flower gardens, and community clean-ups.

Organizers of the Envirothon, the Manitoba Forestry Association (MFA), offered native deciduous and coniferous trees and berry-producing shrubs to the participating schools to encourage action that is more positive.

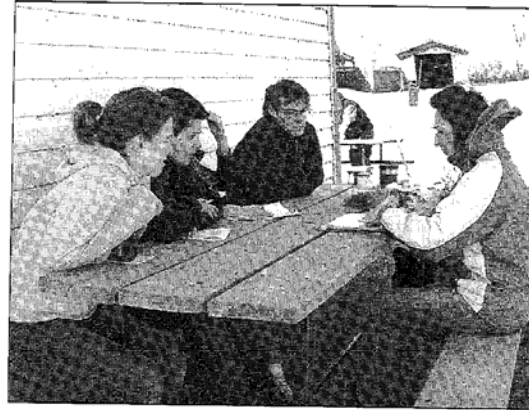
The object of the program is to increase students' consciousness of environment, ecosystems, and the natural balance and complexity of these systems incorporated within the five aspects of the environment forests, soils, aquatics, wildlife, and current issues.

The program also promotes team learning and study methods.

It provides learners with an opportunity to travel and experience different views on environmental issues, concerns, and concepts.

At the same time, it imparts educators with a fresh and stimulating addition to their science, social studies, geography, current affairs, or environmental study curriculum.

The 2007 Manitoba Envirothon is scheduled for May 24-25, 2007 at Brandon University, Brandon, Manitoba.



Students take part in the Spring Envirothon Workshop held in St. Leon on April 20th.

Spring Envirothon Workshop

by Patti Hacault
STAFF REPORTER

High school students from across Manitoba were on task in the community of St. Leon becoming more aware of their environment and at the same time preparing for the Manitoba Envirothon competition slated for May.

Mother Nature was not at her best on Friday, April 20 when high winds made their environment less than ideal for these enthusiastic students.

Envirothon is a hands-on environmental education competition for high school students. The Manitoba Envirothon has been a program of the Manitoba Forestry Association since 1996. Over the past decade the program has grown from the inaugural four teams to over thirty teams last year.

The Manitoba Envirothon also hosted in 2006 the Canon Envirothon, which is the North American competition that winning teams from both the United States and Canada

attend each summer.

The Manitoba Envirothon is an opportunity for high school students to augment their awareness of the environment, ecosystems, and the natural balance and complexity of these systems through an interactive learning experience.

Working as a team of five members and one advisor, they learn to use critical thinking and problem solving skills to arrive at solutions specific to the environment.

These students, from various high schools, study five environment-related topics before competing in the Envirothon. The topics covered are forests, soils, aquatics, wildlife, and a current issue that changes each year.

This year the current issue is Renewable/Alternative Energy and what better place for these students to learn about renewable energy but on site in Manitoba's first wind farm. The Spring Envirothon Workshop in St. Leon offered a wonderful opportunity to learn

to page 9

Appendix D Competition Evaluation Summary

Students (94 evaluations completed)

RESOURCE MATERIALS:

43 students indicated they would prefer to receive the resource materials on CD for the following reasons:

- saves trees/more environmentally friendly
- don't waste paper/print only what you need
- easier to carry/more convenient
- less confusing/you can see the sections better
- can get better information

51 students indicated they would prefer to receive the resource materials in paper format for the following reasons:

- can't use the computer everywhere/can take anywhere/easier to access/a computer is not always easily accessible
- can make notes and highlight easier
- find it hard to read off computer/get headaches
- will print it anyway

49 students began studying the resource materials in the second term.

16 began studying in the first term.

29 did not study at all or began studying on the way to Envirothon.

APRIL WORKSHOP:

73 students did find the workshop helpful in their learning and preparation for the event.

- many questions on the test were answered at the workshop
- nice to know how to do hands-on things that can't be learned from a book
- learned things I didn't find in the binder
- workshop helped me to focus
- the hands-on soil texture testing is difficult to learn on paper-seeing the soils first hand in real life was helpful
- it cleared up a lot about what we really needed to know/it helped clarify many different parts of the material
- learned more that day than from the book
- helped me become more aware of what I was going to face at the Envirothon this year
- the small groups that were specific to your topic were ok but it would have been nice to attend all stations because I may have been able to help the others in my group more
- without it I'd know nothing

7 students did not find the workshop helpful in their learning and preparation for the event.

14 students did not attend the workshop.

Of those who attended the workshop, 49 did not watch the DVD and sighted that the reason for not watching it is that they did not receive it. Of the 24 who attended the workshop and watched the DVD they generally said it was helpful as a reminder of what was discussed at the workshop.

Of the 21 who did not attend the workshop or who did not find the workshop helpful only 8 watched the DVD and they found it somewhat helpful in terms of giving them a sense of what to expect at the event.

FIELD TEST:

44 students listed the resource materials as being the most helpful in preparing for the field test.

18 listed the workshop as being the most helpful in preparing for the field test.

18 listed both the workshop and the resource materials as being equally helpful.

Other things that were listed as helpful included: common knowledge, bio class, my self-esteem, my brains, mock test, previous envirothons, common sense

If there was on thing students could change about the field test it would be:

-shorten the test/not so long (4)

-double-side the pages

-have stops evenly spread out/less running (5)

-more in the actual forest (2)

-snacks at the stops

-not so many stops where there is no equipment and some are loaded/some stops had too much equipment and some had none/more equipment (6)

-some equipment questions for the theme (3)

-less aquatic 10 pointers/less aquatics (8)

-less scientific terms/more ordinary language/clearer questions/some wording of the questions was hard to understand (6)

-more balanced questions/distribute questions evenly (4)

-separate sections of the test for each topic (5)

-one trail seemed easier than the other

-more based on the binder, way too many questions were not covered in it

ORAL PRESENTATION:

91 out of 94 students said the Oral Presentation was a valuable and worthwhile experience.

-gives a less restrictive way to develop our knowledge and put it in context/stimulate creative thinking (11)

-you bonded with your team/forced to use teamwork skills/it helped us work as a team despite the loud arguments (10)

- learned public speaking skills, put forth ideas that may help save the world (18)
- being confident in presenting information to important people
- it was fun (8) and tested under pressure/it was stressful but kinda fun
- it made me think (2)
- gives us a chance to come up with a solution to an excellent problem
- it would have been better to have options: powerpoint, essay, diarama
- need more time to prepare/3 hours instead of 2.5 (4)
- I almost learned more one the orals than on trails because we tie things together
- forced me to go ahead with presentation despite nervousness and shyness in public

GENERAL:

64 students have not visited the Manitoba Envirothon website.

If you could change one thing about Envirothon what would it be:

- more preparation time for the orals (16)
- longer for everything-5 days
- more info on the website/put photos on website
- be proactive and do things to benefit the environment
- no presentations in a cafeteria! Posts were in the way.
- make trail test more paper friendly (2)
- neon coloured t-shirts (4)
- waking up early in the morning (5)
- provide a playground or gym (7)

What was your favourite part:

- the feeling you get after finishing your orals/orals creativity/the orals question was really good/orals because we can pull together as a team/the feeling of a good job done at orals/the orals-it made me be able to think quick/orals because it pulled us together as a team/orals for its challenge and a very useful tool for the future
- meeting new people/mingling/trading/getting to know other people (10)
- field test (21), lots of fun trying to work together to find appropriate answers/exciting and intense knowledge test outside was fun/its fun doing hands on stuff
- the trail tests were the most fun but the orals were extremely valuable in my opinion/trail testing-I loved being outside
- the intensity of the trail test and orals
- the people-they are awesome!
- everything! (2)
- the experience! (5)
- the introductions
- being outside (3)
- Favourite part was knowing I was educating myself on a worthwhile topics and feeling like what we do here could change the future of the environment.

Appendix E
Brandon Sun Article about 2007 Manitoba Envirothon

LOCAL | *the region*

BRANDON SUN
Saturday, May 26, 2007

Students test environmental knowledge

BY IAN HITCHEN

Brandon is the testing ground for a battle of brains and test of environmental wisdom this weekend.

About 150 students from 29 high schools across the province — the smartest of the smart — gathered at the Riverbank Discovery Centre yesterday to compete in the 11th annual Manitoba Envirothon.

"These are kids that are just top-notch academically in their school," envirothon co-chairman Jim Potton said.

Hosted by the Manitoba Forestry Association, the Manitoba Envirothon has been held in Brandon twice before, the last time in 2004.

The two-day competition tests the students' environmental knowledge of such subjects as forestry, soils and rural land use, wildlife, aquatics, and alternative and renewable energy.

Yesterday's first day of competition featured field-testing. Students rotated through 30 stations scattered along the Assiniboine River and had 10 minutes at each spot to solve a problem.

They performed such tasks as determining

whether animal skulls came from a carnivore or herbivore, testing the acidity of soil samples and measuring the distance across the Assiniboine River.

It wasn't only educational, it was also fun, said Swan Valley Regional Secondary School student Matthew Johnston.

"It's surprising how interesting this stuff actually was," Johnston said.

Part two of the contest comes today, with oral presentations. Students will be given three hours to solve a problem in alternative and renewable energy. They'll then have 10 minutes to present their response to a panel of judges.

Spectators are welcome to attend the presentations, which will be held at the Brandon University cafeteria between noon and 4 p.m.

Points from the field tests and oral presentations will be added together and a winner declared at 5 p.m.

The winning team gets trophies and will represent Manitoba in the Canon Envirothon in New York state on July 29 to Aug. 3.

The top 10 teams in that event will split US\$107,000 worth of scholarships.

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CHRISTOPHER PIKE/BRANDON SUN

Students from College Jeanne-Sauve in Winnipeg, compete in the 11th annual Manitoba Envirothon at the Riverbank Discovery Centre in Brandon on Friday. The station they are working at, one of 30 had the students assess a riparian area, the quality of the riverbank eco-system.

