

*City of Ottawa
Rural Clean Water
Program*

*Ducks Unlimited
Canada*

*Grenville Land
Stewardship
Council*

Local Farmers

*North Dundas
Township*

*Ontario Federation
of Agriculture*

*Ontario Ministry of
Agriculture and
Food*

*Ontario Ministry
of Environment*

Parmalat Canada

*Soil & Crop
Improvement
Association*

*South Nation
Conservation*

*Village of
Casselman*



MAY 2006

South Nation Conservation **CLEAN WATER PROGRAM** 2005 Annual Report

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1. CLEAN WATER PROGRAM BACKGROUND

The Clean Water Program has provided a pro-active approach to protection of South Nation River water resources since 1993. The farming and rural communities benefit from improved water quality through this program. Many watershed residents rely on the South Nation River for drinking water, livestock watering, crop production, recreation, and fisheries habitat.

Since 1993, over \$1.7 million has been granted to local farmers and landowners for 474 projects that address non-point source pollution and protect surface and ground water quality. Total value of these projects is estimated at \$6,661,680.

In 2005, the South Nation Conservation (SNC) jurisdiction increased to include the portions of the Townships of South Dundas, Edwardsburgh-Cardinal, and Augusta along the St. Lawrence River that were formally not part of any Conservation Authority. Through partnerships with these local municipalities, the Clean Water Program grants will now be available to landowners in this extended jurisdiction.

The Clean Water Program focuses on the following aspects:

- a) Local surface and ground water quality improvement through improved rural, urban and agricultural land management techniques;
- b) Extension, education and technology transfer;
- c) Grants to landowners and community groups to complete projects and adopt practices which reduce nutrient, sediment and bacteria contributions to surface watercourses, and reduce the potential impact to ground water resources, and
- d) Approval of project proposals by the Clean Water Committee based on the project's potential to improve water quality and cost effectiveness.

2. 2005 CLEAN WATER PROGRAM FUNDING

The SNC Clean Water Committee thanks all partners and contributors to the Clean Water Program for helping to ensure the long-term success of the Program.

For specific details on Program funding, please refer to the budget in section 20.

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a) St. Albert Cheese

In 2004, St. Albert Cheese committed to a 3-year, \$21,000 contribution to the Clean Water Program. The second \$7,000 instalment was presented at the July 26th Clean Water Committee meeting.



2005 cheque (\$7,000) presentation to Clean Water Committee from St. Albert Cheese.

b) Parmalat Canada



Stephen Wilson of Parmalat presents the 2005 Clean Water Program donation (\$5,000) to SNC Chair Claude Cousineau.

Parmalat has a long history of contributing to SNC, providing \$250,000 to the Clean Water Program between 1998-2003. These past donations have helped to fund 80 landowner cost-share grants to implement best management practices.

In 2005, Parmalat donated \$5,000 to the Clean Water

Program.

c) Total Phosphorus Management

Two municipalities contributed \$104,976 in funding to the Clean Water Program in 2005 as part of their Total Phosphorus Management (TPM) agreements with South Nation Conservation. For more information on the TPM program and individual municipal contributions please refer to section 11 Total Phosphorus Management.

d) South Nation Conservation

The South Nation Conservation Board of Directors approved a total contribution of \$48,000 to the Clean Water Program in 2005. SNC's contribution to the Program comes from Municipal levy dollars. This cash contribution does not include senior staff time for support of Program implementation and reporting.

e) R.W. Tomlinson Ltd.

R.W. Tomlinson Ltd. made a 4-year, \$25,000 commitment to SNC's water quality programs. In 2005, the 2nd instalment of \$5,000 was

provided to SNC. The funding was directed to monitoring initiatives, including support of the RiverWatch Program. A small portion of the funding was used communication initiatives for the Clean Water Program.

f) Eastern Ontario Water Resources Committee (EOWRC)

In 2005, EOWRC and the United Counties of Stormont, Dundas & Glengarry provided \$22,344 in funding for Abandoned Well Decommissioning grants and project delivery in Eastern Ontario. Of this total funding, \$11,524 was allocated to grants within the South Nation River watershed. Refer to section 17 for more information.

3. 2005 CLEAN WATER COMMITTEE MEMBERSHIP

The Clean Water Program is directed and implemented by a Clean Water Committee. The Committee is responsible for all aspects of the Program, including; budget, Program funding priorities, Program grant rates and guidelines, landowner project approval, monitoring, education, promotion, and research initiatives.

The multi-stakeholder Committee has over 50% agricultural representation (as agriculture accounts for ~60% of the watershed landuse) that has proven beneficial for networking with landowners within the South Nation River watershed. The ability of the Committee to work in harmony with the local landowners, agricultural groups, government, and other organizations has made it a model to be followed in other areas of the Province.

The Committee member's experience and expertise in best management practices enables them to deliver the Program in a fair and cost effective manner.

2005 Clean Water Committee membership:

- Denis Perrault, Committee Chair
- Dwayne Acres, Ottawa Rural Clean Water Program
- Erling Armson, Ducks Unlimited Canada
- John Brown, Parmalat
- Archie Byers, South Nation Conservation
- Anne-Marie Chapman, Ontario Ministry of Agriculture, Food and Rural Affairs
- Claude Cousineau, Chair, South Nation Conservation (ex-officio)
- Conrad deBarros, Ministry of Environment
- Chris Kinsley, Ottawa Rural Clean Water Program
- Alan Kruszel, Eastern Counties Representative, Ontario Federation of Agriculture

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- René Lalonde, Beef Farmer
- Conrad Lamadeleine, Village of Casselman
- Keith Matthie, Soil & Crop Improvement Association
- Sally MacIntyre, City of Ottawa, Ottawa Rural Clean Water Program
- Gaston Patenaude, Vice-Chair, South Nation Conservation (ex-officio)
- Jackie Pemberton, Dairy Farmer
- Denis Pommainville, Nation Municipality
- Estella Rose, North Dundas Township
- Arlene Ross, Ottawa Rural Clean Water Program (alternate)
- Norm Tinkler, Dairy Farmer
- Adrian Wynands, Grenville Land Stewardship Council

4. 2005 CLEAN WATER PROGRAM GRANT STRUCTURE

The Clean Water Program grant structure is presented in Table 1. Project costs are shared with the landowners, with a maximum grant applicable to all projects.

Table 1: 2005 Clean Water Program Grant Structure

Project Type	Grant Cost Share	Maximum Grant
Septic system repair	Up to 50%	Up to \$1,000
Livestock fencing restriction Completed by contractor OR Completed by landowner	Up to 75% OR Up to 100% for cost of materials	Up to \$5,000
Milkhouse wastewater treatment	Up to 50%	Up to \$5,000
Manure storage	Up to 50%	Up to \$10,000
Barnyard runoff control/clean water diversion	Up to 50%	Up to \$5,000
Constructed wetlands for wastewater treatment	Up to 50%	Up to \$10,000
Nutrient management plans	Up to 50%	Up to \$500
Buffer strips	Up to 50%	Up to \$5,000
Fertilizer, chemical and fuel storage	Up to 50%	Up to \$1,000
Educational initiatives	Up to 50%	Up to \$5,000
Decommissioning abandoned wells*	Up to 100%	Up to \$500

* Grant funding provided by the Eastern Ontario Water Resources Committee (EOWRC) and the United Counties of Stormont, Dundas & Glengarry.

Other projects, not listed, may be considered for funding by the Clean Water Committee on a case-by-case basis. Projects must show the potential to improve local surface and/or ground water quality, must be located within the South Nation River watershed, and must be cost effective.

5. CLEAN WATER PROGRAM REPRESENTATIVES

The Committee began to use members of the community as Clean Water Program Representatives (Reps) to complete site visits in 1999. Reps are hired on a part-time, casual basis and have experience in agricultural BMPs.

The use of Reps has resulted in increased exposure for the Program and enhanced networking with landowners. SNC retained 5 Reps (Robert Gratton, René Lalonde, Jackie Pemberton, Norm Tinkler, and Adrian Wynands) to assist with Program delivery in 2005.

In 2005, the Reps completed approximately 87 site visits and attended 9 meetings, training sessions and promotional events to represent the Clean Water Program. The cost to use Reps in 2005 was \$6,511; this has proven to be a cost effective delivery model and will be recommended for continued use in 2006.

6. BIOSECURITY

In 2001, as a response to growing concerns about Foot and Mouth disease and other contagious agents that can be spread from farm to farm; SNC implemented minimum biosecurity practices for all staff (including Program Reps) completing site visits on livestock operations. These biosecurity measures remained in effect for the protection of our farming community. Staff have the choice between two different biosecurity methods; plastic boot covers and/or disinfectant boot washes. Staff, whenever possible, limit their visits to one livestock operation per day. Unnecessary access to livestock barns, out buildings, and pasture areas during site visits are avoided when possible. Staff vehicles are also kept as far from the livestock areas as possible during site visits.

7. LANDOWNER CONFIDENTIALITY

SNC implemented a project coding system in 2000 in response to applicant concerns for "right to privacy". The coding system provides confidence in the Clean Water Committee's ability to make unbiased decisions, as they do not know the identity of the landowner applying for

Program grants. The coding system also addressed concerns from the farming community that Total Phosphorus Management funds not be linked to specific landowners and projects. Similar systems for confidentiality are used in other incentive programs, such as the Environmental Farm Plan and the Ottawa Rural Clean Water Program.

All information collected through the Clean Water Program application process is used for the sole purpose of determining eligibility under the Clean Water Program. Information from deferred, denied or un-reviewed project applications is also treated as confidential. However, all information collected for the purposes of application for funds through the Clean Water Program is subject to the Municipal Freedom of Information and Protection of Privacy Act, c.M.56, as amended, and may be subject to disclosure under that Act.

SNC reserves the right to use information from approved projects for Program promotion and reporting; however, individual landowner names and specific project locations are not disclosed unless SNC has obtained permission from the landowner.

8. STRATEGIC PLANNING SESSIONS

SNC staff met with the Board of Directors Executive, Clean Water Committee Chair, and Program Representatives in early fall 2006 to get preliminary input into strategic planning for water quality initiatives in the future. Suggestions from these meetings were brought to the Clean Water Committee in October for discussion. The Clean Water Committee then made recommendations to the Board of Directors on what they felt were priority initiatives for the Water Quality Department in the coming years.

The following recommendations were presented to the Board of Directors in November 2005:

- Continue funding for landowner BMP grants through the Clean Water Program.
- Enhancement technical assistance for landowners through workshops and/or tours.
- Enhancement of current surface water quality monitoring programs (e.g. increase the number of sampling stations, augment the list of variables that are sampled, and expand the RiverWatch Program).
- Revisit sub-watershed studies to ensure that the data is still accurate and conduct sub-watershed studies where data is lacking.
- Add a "River Steward" position to SNC staff to become more proactive regarding issues related to the South Nation River and its tributaries and to increase SNC presence on our waterways.

The Board of Directors will implement the Committee's recommendations as funding becomes available.

9. PHOSPHORUS REDUCTION CALCULATIONS

An estimated phosphorus reduction is calculated for each individual project (for which we have a defensible calculation) completed through the Clean Water Program. These calculations are based on an extensive review of the most reliable science available. SNC, under the direction of an expert panel, completed a review of the phosphorus calculations in 2003. Calculations were revised as necessary to ensure the most up-to-date research was incorporated. Please refer to *Phosphorus Loading Algorithms for the South Nation River* (January 2003) for more information.

These calculations have been accepted by the Ministry of Environment as an accurate and defensible means to estimate phosphorus reduction for projects funded through the Total Phosphorus Management Program (see section 11 for more information of the Total Phosphorus Management Program).

Additional research is required to develop a practical, defensible calculation for shoreline erosion protection projects. Current calculations are too complex to be practically implemented at the field level. This project type will not be eligible for Total Phosphorus Management Program funding until a calculation is available.

10. PROJECT SUMMARY

10.1 COMPLETED PROJECTS

In 2005, the Clean Water Program provided \$131,685 in grants to 50 projects, reducing annual phosphorus contributions to watercourses by approximately 1,776 kilograms. The total cost of these 50 projects was \$938,601; therefore, landowner contributions totalled \$806,916.

Table 2 provides a summary of the projects (by project type) completed under the 2005 Clean Water Program. A total of 57 projects were approved; 50 projects were completed and 7 projects did not proceed.

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Table 2. Summary of Completed Projects in 2005

Type of Project	# of Projects Approved	# of Projects Completed	Phosphorus Reduced (kg/yr)	Total Project Cost	Landowner Share	Total CWP Grant
Barnyard Runoff/Clean Water Diversion	0	0	0	\$0	\$0	\$0
Livestock Fencing	0	0	0	\$0	\$0	\$0
Buffer Strip*	1	1	0.7	\$268	\$134	\$494
Manure Storage	10	10	1450	\$745,964	\$660,824	\$85,140
Milkhouse Wastewater	7	6	317	\$104,546	\$78,087	\$26,459
Nutrient Management Plans	1	1	n/a	\$2,520	\$2,020	\$500
Fuel, Chemical and Pesticide Storage	2	2	n/a	\$4,068	\$2,500	\$1,568
Septic System Repair	9	6	8	\$60,690	\$54,690	\$6,000
Wellhead Abandonment	26	24	n/a	\$20,545	\$9,021	\$11,524
Educational Initiatives	0	0	n/a	\$0	\$0	\$0
TOTALS	57	50	1,775.7	\$938,601	\$806,916	\$131,685

* Buffer strip grant included a performance incentive of \$150/ac/year for a maximum of 3 years.



Example of a "Before" manure storage project.

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Example of an "After" manure storage project.



Example of a "Before" fuel storage project.



Example of an "After" fuel storage project.

Table 3 provides details of the projects completed in 2005. This information includes project code, municipality, project type, estimated phosphorus reduction, project costs, and grants paid out. Phosphorus reduction calculations are available upon request.

Table 3: 2005 Clean Water Program Completed Projects

Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2005-NST-CW19B	North Stormont	Buffer Strip	0.7	\$267.50	\$134.00	\$493.75
2005-NDU-CW12A	North Dundas	Fuel Storage	n/a	\$1,663.77	\$1,095.89	\$567.88
2004-NAT-CW14	Nation	Fuel Storage	n/a	\$2,403.82	\$1,403.82	\$1,000.00
2004-NGL-CW34A	North Glengarry	Manure Storage	69.5	\$107,460.00	\$97,460.00	\$10,000.00
2004-NDU-CW62	North Dundas	Manure Storage	72.3	\$8,936.73	\$4,751.23	\$4,185.50
2005-NAT-CW09	Nation	Manure Storage	501.2	\$109,600.00	\$103,600.00	\$6,000.00
2005-NAT-CW10A	Nation	Manure Storage	70.7	\$80,630.40	\$70,630.40	\$10,000.00
2005-RUS-CW13A	Russell	Manure Storage	46.2	\$64,106.08	\$54,106.08	\$10,000.00
2005-NDU-CW14A	North Dundas	Manure Storage	79.3	\$37,985.26	\$27,985.26	\$10,000.00
2005-APL-CW15A	Alfred-Plantagenet	Manure Storage	349.7	\$153,491.15	\$143,491.15	\$10,000.00
2005-RUS-CW17A	Russell	Manure Storage	4.6	\$44,568.90	\$34,568.90	\$10,000.00
2005-NST-CW22A	North Stormont	Manure Storage	226.9	\$129,275.99	\$119,275.99	\$10,000.00
2005-SDU-CW24	South Dundas	Manure Storage	29.4	\$9,909.05	\$4,954.52	\$4,954.53
2004-NGL-CW34B	North Glengarry	Milkhouse Washwater	62.1	\$11,940.00	\$8,358.00	\$3,582.00
2005-NAT-CW10B	Nation	Milkhouse Washwater	55.2	\$10,169.60	\$5,169.60	\$5,000.00
2005-RUS-CW13B	Russell	Milkhouse Washwater	34.5	\$5,753.98	\$2,876.99	\$2,876.99
2005-APL-CW15B	Alfred-Plantagenet	Milkhouse Washwater	0	\$20,930.94	\$15,930.94	\$5,000.00
2005-RUS-CW17B	Russell	Milkhouse Washwater	33.1	\$10,330.45	\$5,330.45	\$5,000.00
2005-NST-CW22B	North Stormont	Milkhouse Washwater	132.5	\$45,421.29	\$40,421.29	\$5,000.00
2005-NST-CW19C	North Stormont	Nutrient Management Plan	n/a	\$2,520.00	\$2,020.00	\$500.00

Table 3: 2005 Clean Water Program Completed Projects - continued

Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2005-NAT-CW02	Nation	Septic System	2.4	\$11,000.00	\$10,000.00	\$1,000.00
2005-NDU-CW04	North Dundas	Septic System	0.6	\$8,000.00	\$7,000.00	\$1,000.00
2005-NDU-CW06	North Dundas	Septic System	1.2	\$11,000.00	\$10,000.00	\$1,000.00
2005-CLR-CW07	Clarence-Rockland	Septic System	1.2	\$12,340.00	\$11,340.00	\$1,000.00
2005-CLR-CW11	Clarence-Rockland	Septic System	1.2	\$11,350.00	\$10,350.00	\$1,000.00
2005-AUG-CW20	Augusta	Septic System	1.2	\$7,000.00	\$6,000.00	\$1,000.00
2005-NST-CW05	North Stormont	Well Abandonment	n/a	\$505.00	\$5.00	\$500.00
2005-NDU-CW12B	North Dundas	Well Abandonment	n/a	\$715.00	\$215.00	\$500.00
2004-SDU-CW37	South Dundas	Well Abandonment	n/a	\$1,000.00	\$500.00	\$500.00
2005-SDU-CW27	South Dundas	Well Abandonment	n/a	\$2,000.00	\$1,500.00	\$500.00
2005-RUS-CW26	Russell	Well Abandonment	n/a	\$775.00	\$275.00	\$500.00
2005-NGL-CW30	North Glengarry	Well Abandonment	n/a	\$775.00	\$275.00	\$500.00
2005-NST-CW31	North Stormont	Well Abandonment	n/a	\$1,400.00	\$900.00	\$500.00
2005-RUS-CW32	Russell	Well Abandonment	n/a	\$467.00	\$0.00	\$467.00
2005-NST-CW23C	North Stormont	Well Abandonment	n/a	\$462.25	\$0.00	\$462.25
2005-NDU-CW33	North Dundas	Well Abandonment	n/a	\$500.00	\$0.00	\$500.00
2005-NDU-CW34	North Dundas	Well Abandonment	n/a	\$625.00	\$125.00	\$500.00
2005-NGL-CW35	North Glengarry	Well Abandonment	n/a	\$535.00	\$35.00	\$500.00
2005-NAT-CW36	Nation	Well Abandonment	n/a	\$758.00	\$258.00	\$500.00
2005-NST-CW37	North Stormont	Well Abandonment	n/a	\$645.00	\$145.00	\$500.00
2005-EDW-CW38	Edwardsburgh-Cardinal	Well Abandonment	n/a	\$1,900.00	\$1,400.00	\$500.00

Table 3: 2005 Clean Water Program Completed Projects - continued

Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2005-NAT-CW39	Nation	Well Abandonment	n/a	\$520.00	\$20.00	\$500.00
2005-NGL-CW35B	North Glengarry	Well Abandonment	n/a	\$538.00	\$38.00	\$500.00
2005-RUS-CW42	Russell	Well Abandonment	n/a	\$1,050.00	\$550.00	\$500.00
2005-APL-CW16A	Alfred-Plantagenet	Well Abandonment	n/a	\$347.50	\$0.00	\$347.50
2005-APL-CW16B	Alfred-Plantagenet	Well Abandonment	n/a	\$347.50	\$0.00	\$347.50
2005-AUG-CW43	Augusta	Well Abandonment	n/a	\$400.00	\$0.00	\$400.00
2005-CLR-CW41	Clarence-Rockland	Well Abandonment	n/a	\$780.00	\$280.00	\$500.00
2004-NDU-CW61	North Dundas	Well Abandonment	n/a	\$1,800.00	\$1,300.00	\$500.00
2005-EDW-CW44	Edwardsburgh-Cardinal	Well Abandonment	n/a	\$1,700.00	\$1,200.00	\$500.00
TOTALS			1775.7	\$938,600.16	\$806,915.26	\$131,684.90

Table 4 provides a summary of the projects completed through the Program for 1993-2005. Since 1993, the Program has granted over \$1.7 million to complete 474 projects. These projects have reduced the annual phosphorus contributions to the watershed's rivers by about 10,926 kilograms.

TABLE 4: Clean Water Program 1993-2005 Project Summary

Type of Project	Year	Number of Project	Phosphorus Reduced (kg/yr)	Total Cost of the Project	Total Landowner Share	Total CWP Grant
Septic System Repair	1994	26	26	\$139,622	\$88,579	\$51,043
	1995	19	19	111,014	73,014	38,000
	1996	7	7	38,947	31,947	7,000
	1997	20	20	121,831	100,056	21,775
	1998	19	103	105,770	87,285	18,485
	1999	4	31	22,128	18,041	4,087
	2000	2	15	16,616	14,616	2,000
	2001	2	2	17,613	15,613	2,000
	2002	8	48	52,989	44,689	8,300
	2003	9	6	58,211	49,161	9,050
	2004	12	26	103,960	91,960	12,000
2005	6	8	60,690	54,690	6,000	
Erosion Protection	1997	6	not available	\$23,115	\$13,415	\$9,700
	1998	4	not available	63,041	43,041	20,000
	1999	8	not available	49,078	30,123	18,955
	2001	11	not available	105,151	61,381	43,770
	2002	2	not available	20,749	10,185	10,564
2003	1	not available	4,975	2,363	2,612	
Manure Storage	1994	5	75	\$141,543	\$ 82,175	\$ 59,368
	1995	15	152	519,485	307,646	211,839
	1996	6	78	128,577	91,577	37,000
	1997	4	25	116,831	95,831	21,000
	1998	4	54	150,914	118,578	37,336
	1999	6	265	131,741	68,658	63,083
	2000	5	213	242,849	190,849	52,000
	2001	14	881	770,380	647,500	122,880
	2002	15	784	695,558	541,119	154,439
	2003	12	2,678	721,428	607,342	114,086
2004	6	396	151,624	115,048	36,576	
2005	10	1,450	745,964	660,824	85,140	
Barnyard Runoff/Clean Water Diversion	1999	1	21	\$14,536	\$9,536	\$5,000
	2001	1	16	3,138	1,569	1,569
	2002	1	7	590	265	325
	2003	5	81	44,983	28,525	16,458
	2004	4	47	28,732	15,838	12,894
Fuel, Chemical, Pesticide Storage and Handling	2002	2	not applicable	\$ 8,634	\$5,334	\$3,300
	2003	1	not applicable	1,418	818	600
	2004	5	not applicable	10,384	5,988	4,396
	2005	2	not applicable	4,068	2,500	1,568

Table 4: Clean Water Program 1993-2005 Project Summary - continued

Type of Project	Year	Number of Project	Phosphorus Reduced (kg/yr)	Total Cost of the Project	Total Landowner Share	Total CWP Grant
Milkhouse Wastewater	1994	1	70	\$13,125	\$ 8,125	\$ 5,000
	1995	9	555	89,199	51,319	37,880
	1996	4	235	31,400	13,801	17,599
	1997	1	52	1,810	905	905
	1998	2	81	12,537	6,602	5,935
	1999	2	96	25,785	15,285	10,500
	2001	7	530	76,310	51,549	24,761
	2002	7	245	66,624	40,078	26,546
	2003	4	204	37,046	26,288	10,759
	2004	4	162	71,081	60,062	11,019
Commercial Wastewater	1997	1	not available	\$14,396	\$9,396	\$5,000
	2001	1	not available	11,615	6,115	5,500
Livestock Access Restriction from Waterways	1993	1	4	\$ 2,223	\$ 1,223	\$ 1,000
	1994	6	43	11,076	2,768	8,308
	1995	18	158	96,600	30,204	66,396
	1996	7	34	28,353	11,177	17,176
	1997	2	11	7,842	3,921	3,921
	1998	1	17	6,164	1,223	4,941
	2000	1	7	3,386	1,693	1,693
	2001	2	15	5,309	1,032	4,277
	2002	11	71	40,724	8,730	31,994
	2003	9	141	21,759	490	21,269
Buffer Strips	2003	1	16	\$ 599	\$285	\$315
	2004	1	2	1,705	852	853
	2005	1	0.7	267.50	134	493.75
Private Wellhead Protection/Repair	1999	1	not applicable	\$5,619	\$4,619	\$1,000
	2001	1	not applicable	1,018	458	560
	2002	2	not applicable	3,558	1,871	1,687
	2003	9	not applicable	14,340	8,850	5,490
Abandoned Well Decommissioning	1999	1	not applicable	\$ 3,450	\$ 2,950	\$ 500
	2001	2	not applicable	1,574	812	762
	2002	1	not applicable	800	400	400
	2004	18	not applicable	19,179	10,179	9,000
	2005	24	not applicable	20,545	9,021	11,524
Nutrient Management Plans	2004	3	263	\$5,905	\$4,405	\$1,500
Other	2002	3	not applicable	\$13,911	\$7,009	\$6,902
	2003	1	not applicable	7,561	5,061	2,500
TOTALS		474	10,926	\$6,661,680	\$4,918,343	\$1,743,695

10.2 PHOSPHORUS REDUCTION ANALYSIS

Since 1993, the Program has reduced phosphorus loading to watercourses by approximately 10,926 kilograms/year. Figure 1 illustrates the phosphorus reduction, and percentage by project type, for 1993-2005.

The following analysis is based solely on the average, by project type, for the total number projects completed through the Clean Water Program. The analysis does not take into account above or below average phosphorus reductions for individual projects.

Milkhouse washwater treatment and manure storage projects account for 89% of the total phosphorus reduction between 1993-2005. The high percentage (65%) for manure storages is partly attributed to the number of projects completed over the past thirteen years. A total of 102 of the 362 phosphorus-reducing projects completed between 1993-2005 have been manure storages.

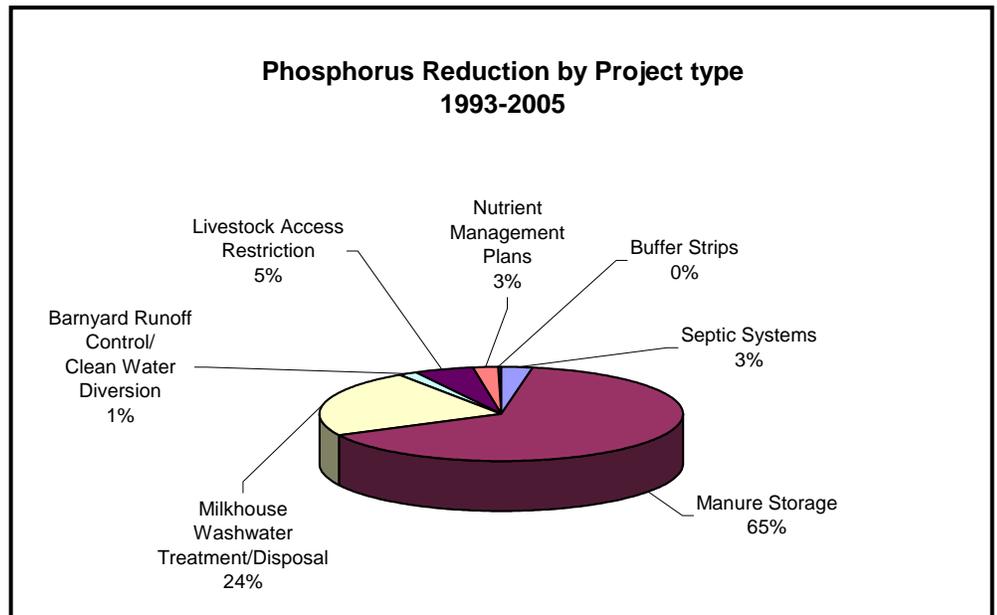


Figure 1: Phosphorus Reduction by Project Type, 1993-2005

Milkhouse washwater treatment projects account for only 47 of the 362 phosphorus-reducing projects to date; however, this project type has a very high average phosphorus reduction (54 kg/year) and amounts to the second largest reduction (24%) by project type.

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Septic system repair projects account for 136 of the 362 phosphorus-reducing projects, yet only 3% of the total phosphorus reduction; this project type has an average phosphorus reduction of only 2 kg/yr.

Based on grant dollars per kilogram for phosphorus reduction, the cost per kilogram for each Total Phosphorus Management (see section 11) project type is illustrated in Figure 2.

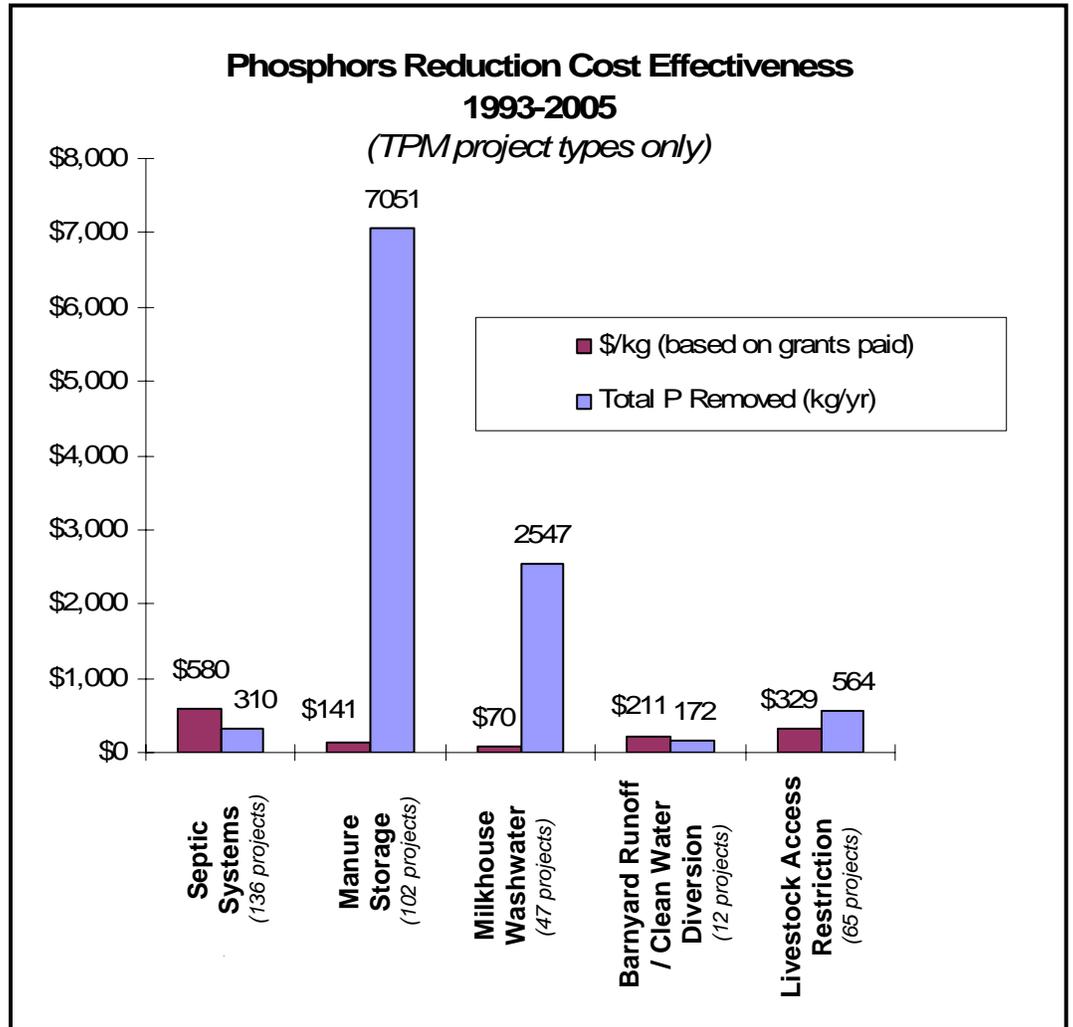


Figure 2: Phosphorus Reduction Cost Effectiveness, 1993-2005

11. TOTAL PHOSPHORUS MANAGEMENT PROGRAM

According to Provincial policy, where water quality does not meet Provincial standards for a specific contaminant, no further degradation of water quality will be allowed for that contaminant. However, in the past the Ministry of Environment (MOE) gave dischargers a permit to discharge phosphorus from their facilities into the South Nation River and its tributaries, even though the watercourses did not meet Provincial water quality objectives. Beginning in 1998, the MOE stopped issuing these permits and required all dischargers to have zero discharge of phosphorus from their facilities. MOE imposed this standard on new construction only (this includes expansion of existing facilities). Existing facilities that continued to operate according to their current permits are not required to reduce their phosphorus loading to zero.

The Total Phosphorus Management (TPM) Program is an innovative, MOE approved, pilot phosphorus management strategy for the new or expanding municipal or industrial wastewater discharge facilities that must meet the zero phosphorus discharge limit. TPM allows the option of removing the phosphorus loads by implementing non-point source projects elsewhere in the watershed. The offsetting of point source phosphorus by non-point sources is implemented at a 4:1 ratio. This ratio results in a net water quality and environmental benefit, with four times as much phosphorus removed from non-point sources as is contained in the discharge (point source). This offsetting approach also has the added benefit of removing other contaminants (e.g. nitrogen, bacteria, and sediment) in addition to phosphorus.

Participation by municipalities or industry is voluntary and in most cases, TPM is more cost-effective than conventional treatment technology. The SNC Clean Water Program provides funding assistance to landowners for water quality improvement projects; as such, it provides the delivery mechanism for the TPM Program.

TPM participants pay a cost per kilogram for the phosphorus credits. The total cost of each TPM agreement is calculated by determining the dischargers annual phosphorus loading and multiplying it by 4 (4:1 ratio) to establish the phosphorus reduction target. This target is then multiplied by the set cost per kilogram (determined based on the history of the Clean Water Program and adjusted annually for cost increases). Discharges can negotiate an annual payment plan for their TPM agreement.

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In August 1999, a TPM working group was formed to develop the roles and responsibilities of the TPM stakeholders and to oversee its implementation. The group consisted of:

- Ministry of Environment
- Ontario Ministry of Agriculture, Food & Rural Affairs
- Ontario Federation of Agriculture
- Ontario Soil and Crop Improvement Association
- Municipalities/industries participating in the TPM Program (past and present)
- South Nation Conservation

Since 2000, SNC has signed TPM agreements for 6 municipal wastewater treatment plants (WTP) and 2 landfill sites. These agreements include:

- North Stormont Township for Village of Finch (WTP)
- North Dundas Township for Winchester Village (WTP)
- Nation Municipality for the Village of Limoges (WTP)
- Village of Casselman (WTP)
- Nation Municipality/Village of Casselman (joint landfill)
- Lafèche Environmental Inc. (landfill)

With the six TPM agreements, approximately \$800,000 (includes grants and delivery) will flow through the Clean Water Program. To date, SNC has received and allocated \$778,906 of this total.

In 2005, 349 kg/year was credited to the two current TPM agreements. Since 2001, a total of 2,894 kg/yr phosphorus credits have been allocated to the six TPM agreements.

11.1 TPM EVALUATION

As per the *Roles and Responsibilities* document, SNC and the Ministry of Environment (MOE) initiated an evaluation of the TPM Program after 5 years of implementation. This comprehensive evaluation will review all aspects of the TPM pilot program and will offer recommendations for future program delivery. SNC hired a consultant, Cullbridge Marketing and Communications, to assist with the evaluation and production of a final report. As part of the evaluation, Cullbridge conducted an extensive survey of TPM partners and landowners who completed phosphorus reducing projects through the Clean Water Program. Data collected included, knowledge of the TPM Program, satisfaction on Program delivery, and suggestions for improvement. The evaluation final report will be completed in 2006.

12. SHELTERBELT DEMONSTRATION PROJECT

The Canadian Pork Council, in cooperation with Ontario Pork and Conservation Ontario, obtained federal funding from the Greencover Canada program for a windbreak education and demonstration program in Ontario. The goal is to provide training to existing extension/stewardship personnel who provide technical assistance to livestock producers on windbreak establishment.

Program components included:

- A series of training workshops on windbreak design and intensive management techniques. Emphasis is on windbreak systems around hog barns for odour, dust and snow control.
- Establishment of eight demonstration sites on hog farms across Ontario to demonstrate intensive establishment and management techniques. The program will cover all establishment costs on the selected sites.

SNC was selected as the Eastern Ontario watershed to implement two of the demonstration shelterbelts. The hog operations of Mr. Geri Kamenz and Mr. Justin St. Onge were the selected sites. SNC hosted the Eastern workshop for this Project in fall 2005. Follow-up workshops will be scheduled in 2006.



Planting shelterbelt at Mr. Geri Kamenz's hog operation, fall 2005.

13. WATER QUALITY MONITORING

13.1 SURFACE WATER MONITORING

SNC continues to collect surface water samples through the Provincial Water Quality Monitoring Network (PWQMN) and Watershed Characterization (WC) Network. These networks are coordinated through the Ontario Ministry of the Environment (MOE) with technical expertise and laboratory support provided by staff at the MOE.

SNC collects surface samples at thirteen sites throughout the watershed on a monthly basis when the watercourses are free of ice.

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These samples are tested at the Ministry laboratories in Etobicoke, Ontario for suspended solids, major ions and nutrients, and metals.



SNC staff taking a reading from a multi-probe while surface water sampling.

While at the sample site, SNC also staff take readings of pH, conductivity, temperature, and dissolved oxygen.

The water quality information collected at these thirteen sites is incorporated into the Provincial Water Quality Monitoring Network database. SNC has available, upon request, the information collected while in the field, and the laboratory reports detailing the results of the water quality tests performed on the samples collected.

Algal Sampling

In 2005, SNC supported research at the University of Ottawa on the primary productivity and algal populations (measured as Chlorophyll A concentrations) in the South Nation River (SNR). At each of the 13 PWQMN and WC sampling sites, an additional water sample was taken to determine Chlorophyll A concentrations. Algal abundance is a better indicator (than phosphorus) of eutrophication and this information will be used to better assess the state of the SNR.

RiverWatch

SNC re-established the volunteer RiverWatch Program in 2004, after a year hiatus. With financial assistance from R.W. Tomlinson Ltd., SNC purchased 6 new and improved test kits for surface water sampling. These kits were distributed to returning and new volunteers to the RiverWatch Program.

With training provided by SNC, volunteers sample their local site monthly, during ice-free conditions. Data gathered through this program is used to augment water quality data collected through the PWQMN and Watershed Characterization monitoring networks.



A volunteer family sampling their local stream using a RiverWatch kit.

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The volunteers continued to sample throughout 2005 for this program.

Ontario Benthic Biomonitoring Network (OBBN)

In 2004, SNC participated in the Ontario Benthic Biomonitoring Network (OBBN) in conjunction with the MOE. A total of 6 sampling sites were established for long-term monitoring. Sites were sampled in October and data will eventually be incorporated into the MOE's Provincial database. This benthic data will be used for water quality analysis in conjunction with the surface water data collected through PWQMN and WC.



Ephemeroptera (Mayfly), is an example of a benthic invertebrate that can be used as a biological indicator of water quality.

Due to an abundance of precipitation in the fall, water levels were too high to safely sample most of the OBBN sites in October 2005. Staff were able to obtain samples from one station (Shields Creek, Greely), only.

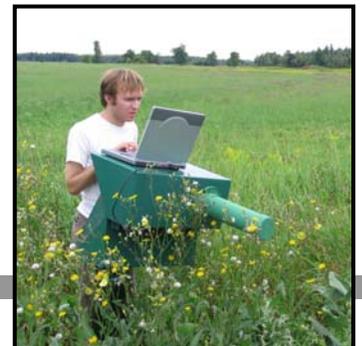
Pesticide Monitoring

Environment Canada initiated a national project to document the concentrations of some commonly used pesticides in surface waters of Canada. In 2004, SNC was approached to participate in this project. Samples were collected at 1 site on the Little Castor River; this site was selected because it is part of the Microbial Source Tracking (MST) water quality monitoring program. Three in-use pesticide groups will be analyzed, including organophosphorus insecticides, triazines and phenoxy- acid herbicides. SNC continued to sample for this Program in 2005.

13.2 GROUNDWATER MONITORING

In 2001 and 2002, the MOE hydrogeologists and SNC staff identified sensitive groundwater areas within the SNR watershed that would be incorporated into the Provincial Groundwater Monitoring Network (PGMN). SNC currently maintains 17 wells for the network.

The purpose of this network is to monitor groundwater quantity and quality in these sensitive aquifers. To achieve this goal, all wells have been equipped with dataloggers capable of recording the water levels in each well. In addition, where feasible, wells



SNC staff maintaining telemetry unit and datalogger on a PGMN well.

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have also been equipped with telemetry units for remote access to download data. The dataloggers currently collect water level readings hourly.

The MOE's main computer connects with each well in the PGMN at a scheduled time and downloads the information from the datalogger. Wells without telemetry units are manually downloaded by SNC staff. A message is sent to SNC to verify the data from the well to ensure that it is accurate. Once the data is confirmed to be reasonable, it is incorporated into a long-term PGMN database.

In conjunction with the water quantity component of the PGMN, a baseline analysis of the water quality of each well was performed in 2003. A comprehensive suite of water quality variables were tested for presence and concentration in the water collected from each well. These tests included nutrients, metals, volatile organic compounds, herbicides, and pesticides. This 1st round of sampling costs were covered by the Ministry of the Environment.

Due to the legal requirements of Regulation 903 (and Regulation 128: *amendments to Reg 903*), SNC staff are not licensed to sample the PGMN wells using current Program equipment. For this reason, no water quality sampling occurred in 2005. SNC staff continued to maintain the dataloggers and telemetry units on the wells. The MOE is working on installing dedicated pumps into as many PGMN wells as feasible; this will allow staff to legally sample water quality in the future.

14. AGRICULTURE AND AGRI-FOOD CANADA PARTNERED RESEARCH PROJECTS

14.1 MICROBIAL SOURCE TRACKING (MST)

A major 4-year water quality study is currently underway in the Provinces of New Brunswick, Alberta, and Ontario. The South Nation River watershed has been selected as the study region representing the Province of Ontario. This research project is being coordinated by SNC's Clean Water Committee in partnership with Agriculture & Agri-Food Canada (AAFC), and Health Canada.

The project has two components; the focus of first research component is to:

- Implement a surface water monitoring program with sample sites located at municipal drinking water intakes and recreational areas upstream of the Village of Casselman.

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- Identify *E. coli* and other bacteria affecting water quality.

The second component of the study is:

- The development and validation of microbial-based testing techniques used to identify sources of bacterial contamination.
- The identification of the bacterial composition of various sources of fecal contamination (e.g. livestock operation lagoons, municipal wastewater lagoons, septic systems, wildlife, and domestic pets.).
- The creation of a microbial reference library cataloguing the bacterial composition results obtained from DNA-based methods.

Ag Canada approached SNC for a couple of reasons; firstly, because of the good-standing relationship with area farmers and rural landowners and secondly, because several municipalities draw their drinking water directly from the South Nation River (Village of Casselman was selected as the focus of the study area). SNC's role is to be the primary contact with local residents and to facilitate surface water sampling and fecal sample collection. Program Reps were utilized to make the first contact with residents in the study area and to collect fecal samples from voluntary participants. SNC produced a number of 1-page fact sheets with project information that was distributed to residents in the study area.

SNC staff, in cooperation with Ag Canada, established a surface water quality monitoring program at 22 sites. SNC staff collects the samples, every 2 weeks, and ships them to AAFC lab for analysis. SNC staff also sample the 22 sites after rain events (>1 inch of rainfall) to monitor microbial inputs to watercourses from storm runoff.

14.2 WATERSHED EVALUATION OF BENEFICIAL MANAGEMENT PRACTICES (WEBs)

The Watershed Evaluation of Beneficial Management Practices (WEBs) study is a \$5.65-million project led by Agriculture and Agri-Food Canada (AAFC). It is largely funded through AAFC's Greencover Canada program. Ducks Unlimited Canada, a key partner, is contributing. The study will occur from 2004 to 2008.

The South Nation River watershed, specifically the Little Castor River sub-watershed, has been selected as one of seven watersheds across Canada for the WEBs study. This research project is being coordinated by SNC in partnership with AAFC.

The objectives of the study are to determine how effective BMPs are in decreasing inputs of various nutrients and bacteria to the river.

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Unlike previous studies of this nature, the focus of WEBs is collecting scientific data using a paired watershed approach (one control watershed and one research watershed that can be alternated throughout the course of the study). This project overlaps with the MST study area and the same 22 surface water quality monitoring stations will be used for this project. WEBs sampling at these stations occurs at the same time as the MST sample run (every 2 weeks plus rain events).

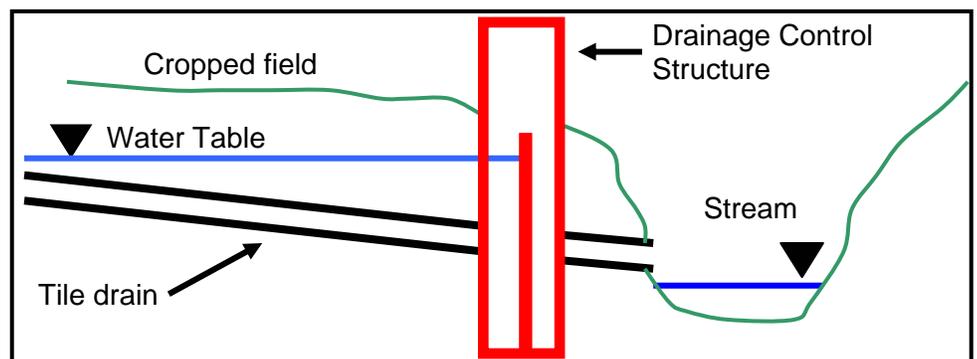
The following BMPs will be studied in the South Nation project:

- Controlled Tile Drainage
- Cattle Restriction to Streams
- In-stream Wetland/Retention Ponds (*potential BMP, currently under evaluation for implementation feasibility*).

A WEBs Steering Committee was formed to provide input to the research study. The Committee is comprised of AAFC, SNC, Ducks Unlimited, University of Ottawa, and OMAFRA.

Controlled Tile Drainage

The effects of controlled tile drainage have been shown in other studies to increase water, nutrient and sediment retention on farmer's fields during periods when they are most needed (summer and draught conditions). These benefits are in addition to the regular benefits of traditional tile drains. The control is accomplished by the manual positioning of a sluice gate that can be adjusted to the desired height for optimal water retention without causing flooding. The drawing below shows the cross-sectional schematic for the control structures.



Schematic of tile drain control structure instalment for the WEBs – controlled tile drainage BMP.

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AAFC and SNC had drainage control structures (figure 1) installed in 15 fields capping 24 drains in 2005. A significant monitoring effort is underway (figure 2) to capture any changes in water quality from the controlled and uncontrolled tile drains in the study area, in addition to regular monitoring of water quality in municipal drains and local rivers.



Figure 1: Tile drain control structure installed on a tile header for the WEBs – controlled drainage BMP.



Figure 2: Automated sampler set-up to sample flow from the tiles for the WEBs – controlled drainage BMP.

Cattle Restriction to Stream

The effects of restricted versus unrestricted access of cattle to a stream will be studied. This BMP will not be initiated until 2006.

14.2.1 AGRICULTURAL MANAGEMENT PRACTICES

In 2005, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) provided a \$20,000 grant to SNC to gather information on agricultural management practices within the study area of WEBs. The objective was to collect field and crop data and management information that would assist with the interpretation of data collected through the WEBs project. Landowners participating in the controlled tile drainage BMP were the priority for this project. A total of 5 landowners (4 operations) participated in a comprehensive survey of nutrient management and crop management practices. OMAFRA technical staff used the information from the surveys to produce field level nutrient management plans, using NMAN, for each of the participating operations.

15. WATER RESPONSE TEAM

In 2000, the provincial government prepared a response plan to deal with low water conditions. This led to the creation of Water Response Teams (WRT) to monitor water levels and encourage voluntary water conservation practices in their area through education and publicity.

Members of the Clean Water Committee sit on the WRT in times of low water conditions. In 2005, no low water occurrences were experienced, therefore the WRT did not meet.



“Conserve Water, Drought Conditions in Effect” signs posted with bilingual SNC boundary signs throughout the watershed, summer 2002.

16. SOURCE WATER PROTECTION

Source water protection (SWP) is a provincial initiative funded by the Ministry of Environment (MOE), delivered locally by Conservation Authorities (CAs), aimed at protecting surface and groundwater supplies from becoming contaminated and overused. In December 2005, the MOE introduced source water protection legislation called the *Clean Water Act*. Currently, the Act is moving through the approvals process in the provincial legislature. For more information on the *Clean Water Act* please visit the MOE website at www.ene.gov.on.ca/water.htm.

CAs will contribute a watershed approach, a base of scientific expertise and local knowledge as SWP plans unfold according to the proposed *Clean Water Act*. Public participation and stakeholder representation will be built into every phase of the development and implementation.

In order to ensure consistent and coordinated SWP plans in each CA, the province has proposed regional grouping of CAs where appropriate. It is proposed that SNC will be grouped with Raisin Region Conservation Authority (RRCA), this proposed region would also include the areas along the Ottawa and St. Lawrence Rivers that are currently not part of any Conservation Authority jurisdiction.

If passed, the *Clean Water Act* will have several Regulations associated with it. Anticipated Regulation include; the formalization of SWP regions, and the establishment of regional SWP Committees.

SNC and RRCA want to ensure that any landowner concerns or questions regarding SWP are addressed as soon as possible, as such. Project Management staff from the two CAs are meeting with local agricultural groups and municipalities to ensure they are kept informed as SWP develops.

The Clean Water Committee and Eastern Ontario Water Resources Management Committee (EOWRC) have been providing SWP staff with stakeholder feedback on SWP material as it is released by the Province for comments. SWP staff will continue to consult with these Committees until the formal SWP Committees are established through Regulation.

17. EASTERN ONTARIO WATER RESOURCES COMMITTEE

The Eastern Ontario Water Resources Committee (EOWRC) was established in 2001 to implement recommendation from the Eastern Ontario Water Resources Management Study (EOWRMS) completed March 2001. The EOWRMS outlined 35 recommendations for regional water resources management. The EOWRC's goal is *"to provide a solid regional representation for the assessment and management of water resource related studies and projects that improve our capacity to anticipate and prevent negative environmental impacts and to address health/environmental needs on a cost-effective basis"*.

Current EOWRC membership includes:

- Municipalities (United Counties of SD&G, Prescott and Russell, and the City of Ottawa)
- Agriculture (Ontario Federation of Agriculture, L'Union des cultivateurs franco-ontariens, Ontario Cattlemen's Association, and Ontario Soil and Crop Improvement Association)
- Government (Provincial Ministries of the Environment and Agriculture, Food and Rural Affairs, and the Federal Agriculture and Agri-Food Canada department)
- Conservation Authorities (South Nation and Raisin Region)
- Resource Stewardship Councils
- Eastern Ontario Health Unit
- University of Ottawa

The Clean Water Committee is kept up-to-date on EOWRC projects and provides input to further the implementation of these projects.

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The Clean Water Committee's work supports many of the recommendations of EOWRMS.

17.1 ABANDONED WELL DECOMMISSIONING PROJECT

South Nation Conservation submitted and received funding from the EOWRC for decommissioning abandoned wells throughout Eastern Ontario in 2005.

SNC delivered grants to landowners within the EOWRMS study area to properly decommission abandoned wells. The grant rate was 100% of the total costs to a maximum of \$500/well. The grants were delivered through the Clean Water Program in the SNR watershed and by SNC staff in the remainder of the EOWRMS area. The EOWRC funding was also utilized by the Ottawa Rural Clean Water Program to supplement grants in the City of Ottawa portion of the EOWRMS area.



An example of an abandoned well that is being decommissioned with the EOWRC funding.

In 2005, a total of 36 wells were decommissioned and \$17,344 in grants was paid out to landowners. Total EOWRC funding for this project, including delivery, was \$22,344.

18. OTTAWA RURAL CLEAN WATER PROGRAM

The City of Ottawa launched its Rural Clean Water Program in the spring of 2000. The South Nation River watershed overlaps with portions of the City of Ottawa. To avoid duplication of programs in the overlap area, South Nation Conservation withdrew the Clean Water Program from this portion of the South Nation River watershed.

The City of Ottawa has approved the funding for the Ottawa Rural Clean Water Program for 5 years (2005-2009) in the amount of \$184,000/year as a special levy to the Ottawa Conservation Authorities (South Nation, Rideau Valley, and Mississippi). South Nation Conservation has been appointed by the Conservation Authorities to act as lead CA and banker for the Program.

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The Conservation Authorities provide Program delivery of all aspects of the Program (program management, communications, project review, and reporting), under the direction of the Ottawa Rural Clean Water Program Committee and the City of Ottawa. Each CA is responsible for the delivery of the Program for their watershed within the City of Ottawa.

In 2005, SNC reviewed 39 project applications with the South Nation River watershed and approved 39 projects. Of this total, 34 projects were completed and received \$43,984 in grant funding, the remaining 5 did not proceed. The total value for the completed projects is estimated at \$204,360.

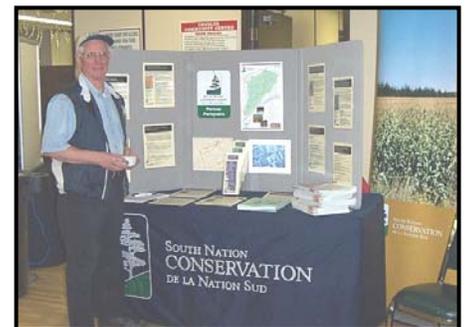
The combined number of projects completed for the 3 CAs was 91 for a total of \$108,916 in grants and an estimated total project value of \$589,338.

19. EDUCATION AND PROMOTION ACTIVITIES

South Nation Conservation was involved in many different education and promotion events in 2005. These activities provide opportunities to inform people of how they can improve the natural environment on their properties. Appendix A provides examples of 2005 communications materials for the Clean Water Program.

The key elements of the 2005 Clean Water Program education and promotion campaign are outlined below:

- a) The following events were attended to promote the grant programs and water quality in general:
- Kemptville Dairy Day
 - Chrysler Farm Show
 - Embrun Farm Show
 - Ottawa Valley Farm Show
 - Spencerville Fair
 - Russell Fair Education Day
 - Metcalfe Fair
 - Ottawa Eco-Stewardship Fair
 - Russell Chamber of Commerce Trade Show
 - Russell Pout Masters
 - National Environment Week – Department of National Defence
 - Chrysler Dam Fest



Clean Water Program Rep, Rene Lalonde, staffing the SNC booth at a local farm show.

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- Vankleek Hill Eco Day
 - Navan Fair
 - Avonmore Fair
 - South Mountain Fair
 - Chesterville Fair
- b) Presentations were made to the following groups:
- PRI Water Quality Trading Forum – Total Phosphorus Management Program
 - National Forum on Synergies Between Water Quality Trading and Wetland Mitigation – Total Phosphorus Management Program
 - Soil and Water Conservation Society Annual Conference – Total Phosphorus Management Program
 - Water Efficiency Team (W.E.T.) workshops – Abandoned Well Decommissioning grants
 - Well and Septic Workshop (Navan) – Abandoned Well Decommissioning grants
 - A.D. Latornell Symposium – WEBs project
 - New York Conservation Districts Annual Meeting – Conservation Authorities and SNC (including water quality programs)
- c) SNC hosted tours for the following groups:
- Watershed Fall Tour, September 26th, 2005 – CWP projects, AAFC research projects, SNC Conservation Areas, and the Alfred Bog.
 - Lancaster County, Pennsylvania – Tour of local farming operations, markets, wastewater treatment plant, and a hydro power dam. SNC also met with US Environmental Protection Agency (EPA) staff to discuss the Total Phosphorus Management Program.



SNC group touring an Amish farm in Lancaster, PA

- d) 2005 Clean Water Program Press Releases:
- “Cash Available for Water Quality Enhancement” – April 15th
 - “SNC Staff Busy Addressing Major Water Conferences” – July 13th

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- “St. Albert Cheese Contributes More Clean Water Funding” – October 14th
 - “SNC Share Expertise With Other Agencies” – November 7th
 - “Parmalat Donates \$5,000 to Clean Water Program” – January 25th, 2006
- e) The Clean Water Program and other water quality initiatives were featured in the SNC Watershed Update in February, March, June, August, September, October, November, and December.
- f) Clean Water Program information is included on South Nation Conservation’s web page (www.nation.on.ca).
- g) Newspaper advertisements for the Abandoned Well Decommissioning grants were placed in the following papers:
- AgriNews
 - AgriCom
 - Vankleek Hill Review
 - Seaway News
 - St. Lawrence EMC
- h) Clean Water Program brochure was updated for 2005 to reflect Program changes and acknowledge donators. The brochures were distributed to local farm organizations, municipal offices, Provincial Ministries, Environmental Farm Plan representatives, and at fairs and trade shows.
- i) English and French fact sheets were developed specifically for the Abandoned Well Decommissioning grants. The fact sheets were distributed to local well contractors, local farm organizations, municipal offices, Provincial Ministries, Environmental Farm Plan representatives, and at fairs and trade shows.
- j) Several English and French fact sheets were developed specifically for various components of the WEBs project. The fact sheets were distributed to local landowners and farm groups.

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20. BUDGET

20.1 2004 CLEAN WATER PROGRAM BUDGET

Table 5 outlines the revenue and expenses for the 2005 Clean Water Program. Budget notes are provided in 20.1.1.

Table 5: 2005 Clean Water Program Budget

		2005	
Contributions		Budget	Actual
a	Parmalat Canada	\$0	\$5,000
b	South Nation Conservation (SNC)	\$48,000	\$48,105
c	Total Phosphorus Management (TPM)	\$106,623	\$104,976
d	St. Albert Cheese	\$7,000	\$7,000
e	Contingency Fund	\$8,887	\$3,538
f	Tomlinson	\$1,000	\$1,000
Totals		\$171,510	\$169,619
Expenses			
g	Program Grants	\$112,623	\$117,623
h	Education/Promotion	\$5,000	\$3,190
i	Monitoring	\$3,000	\$3,000
j	Committee expenses	\$5,000	\$5,770
k	Program Reps	\$7,000	\$6,511
l	Program Expenses	\$4,000	\$4,436
m	Program Staff	\$21,000	\$21,000
n	TPM Evaluation	\$5,000	\$4,550
o	Contingency Fund	\$8,887	\$3,538
Totals		\$171,510	\$169,619

20.1.1 2005 CLEAN WATER PROGRAM BUDGET NOTES

Contributions

a) Parmalat

No funding was budgeted for a Parmalat contribution in 2005; however, Parmalat did provide a \$5,000 donation to the 2005 Program.

b) South Nation Conservation

SNC contributed \$48,000 to the Clean Water Program Budget in 2005.

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c) Total Phosphorus Management (TPM)

SNC received payments from North Dundas Township (Winchester) and Casselman sewage work projects in 2005. The TPM Program budget for 2005 was estimated at \$106,623; this includes a carry-over of unspent 2004 TPM dollars into 2005.

The total 2005 TPM expenditure was \$104,976 and was allocated to grants, Program delivery, and the TPM Program Evaluation. The unspent balance will be carried forward to the 2006 budget.

d) St. Albert Cheese

St. Albert Cheese has committed \$21,000 over 3 years to the Clean Water Program. The first instalment of \$7,000 was received in 2004. The second instalment of \$7,000 was received for 2005. The final instalment of \$7,000 is expected in 2006.

e) Contingency Fund

SNC contributed \$13,500 to the Ottawa RCWP in 2000 to support projects in the North Castor watershed as part of the AGNPS computer model project. The AGNPS project concluded in 2003 and no projects were completed in the North Castor watershed through the Ottawa RCWP; therefore, the unallocated dollars were returned to SNC in late 2003. The unspent \$13,500 was allocated to the Program budget as contingency funding; unspent dollars are carried forward to the next Program year

A total of \$4,613 from the contingency fund was spent in 2004; an additional \$3,538 was allocated in 2005. The remaining \$5,349 will be carried into the 2006 Program.

f) Tomlinson

Tomlinson was donated \$5,000 to SNC in 2005 for water quality programs. This contribution is part of a 5-year, \$25,000 donation to SNC water quality initiatives. Of the 2005 contribution, \$1,000 was allocated to the Clean Water Program budget to support monitoring activities; the remaining was used to assist with delivery of the RiverWatch Program.

Expenses

g) Project Grants

The budget for grants in 2005 was \$112,623. In 2005, at 50 - 75% cost share with a maximum grant, the Clean Water Program funded 30 projects and allocated \$117,623 in grants to landowners. The Parmalat donation of \$5,000 was used to cover the additional cost

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above the budget amount. The allocated grant total does not include abandoned well decommissioning grants funded through the Eastern Ontario Water Resources Committee (EOWRC).

h) Education and Promotion

Education and promotion budget for 2005 was \$5,000. Expenses for 2005 totalled \$3,190 for brochures, press releases, Program tour, and fairs/events. Costs were lower than budgeted because activities were shared with the other partners/Programs.

i) Monitoring

A budget of \$3,000 for Monitoring was allocated for 2005. The Ministry of Environment annually contributes approximately \$20,000 in-kind services for laboratory analysis for the surface water sampling.

Total costs in 2005 were \$3,000. Monitoring expenses included water quality sampling staff support, monitoring supplies, and vehicle charge-back.

j) Committee Expenses

Volunteer members on the Committee are paid a per diem and mileage in accordance with SNC regulations to compensate them for their contribution to the Program. Expenses also include lunch/refreshments. The budget for 2005 was \$5,000 and the expenses for the year totalled \$5,577.

k) Program Representatives

Program Representatives (reps) are paid an hourly wage and mileage in accordance with SNC rates. Reps complete site visits to assist landowners with the application process. Reps also provide delivery support for Program education and promotion. The 2005 budget for Reps was \$7,000 and expenses totalled \$6,511.

l) Program Expenses

The budget for Program expenses in 2005 was \$4,000 and included travel expenses, supplies, staff training, and translation. Expenses for 2005 totalled \$4,436.

m) Program Staff

The budget for Program staff in 2005 was \$21,000. Program staff expenses in 2005 totalled \$21,000. Part of the staff positions are also funded through the SNC General Water Quality Budget.

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n) TPM Evaluation

A Total Phosphorus Management Program evaluation, following the 5th year of implementation, commenced in 2004. The EOWRC, MOE and TPM Program contributed \$10,244 towards this project in 2004. An additional \$5,000 was budgeted to complete the project in 2005. Total expenses for 2005 were \$4,550.

o) Contingency Fund

SNC contributed \$13,500 to the Ottawa RCWP in 2000 to support projects in the North Castor watershed as part of the AGNPS computer model project. The AGNPS project concluded in 2003 and no projects were completed in the North Castor watershed through the Ottawa RCWP; therefore, the unallocated dollars were returned to SNC in late 2003. A total of \$4,613 was allocated in 2004 an additional \$3,538 was allocated to grants in 2005. The remaining \$5,349 will be carried-over to 2006.

21. RECOMMENDATIONS FOR 2006 CLEAN WATER PROGRAM

The following recommendations are based on 2005 Clean Water Program:

- a) That the Clean Water Program continue to offer grants for water quality improvement projects to rural, urban and agricultural residents of the South Nation watershed for improving surface and ground water quality.
- b) That the Committee continues to investigate options in 2006 to reduce Program delivery expenses.
- c) That the Committee membership be reviewed in 2006 to consider new members from the agricultural, urban and rural sectors.
- d) That the Clean Water Committee review Program Grant Structure to ensure maximum water quality benefit for minimum cost.
- e) That Program Representatives continue to be used to assist with Clean Water Program delivery and that staff review site visit requests to determine if additional Reps are required in 2006. Where applicable, Reps are used to conduct follow-up site visits.
- f) That the Committee should continue to seek additional funds to support the work of the Clean Water Program; including delivery, promotion, education, monitoring, research and project grants.

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- g) That education and promotional activities continue to focus on water quality improvement benefits and best management practices for rural, urban and agricultural landowners. Where possible, SNC should partner with other organizations/programs to reduce costs.
- h) That the Clean Water Committee continues to promote innovative technologies for water quality improvement. Current demonstration sites such as the Dignard Constructed Wetland will continue to be promoted.
- i) That surface and ground water quality/quantity monitoring continue in the South Nation River watershed in cooperation with the Ontario Ministry of Environment.
- j) That SNC continue to monitor established benthic (invertebrate) sampling sites to complement surface water quality monitoring.
- k) That SNC continue to maintain the RiverWatch Program.
- l) That the Clean Water Committee work with the Eastern Ontario Water Resources Committee to continue implementing recommendations from the 2001 Eastern Ontario Water Resources Management Study report, including promotion of BMPs in the study area outside of the South Nation River watershed.
- m) That SNC continue to deliver the Ottawa Rural Clean Water Program, in partnership with the Conservation Authorities of Ottawa. Where possible, SNC and Ottawa should jointly promote Programs to residents.

22. APPENDICES

Appendix A – 2005 Education and Promotional Material

APPENDIX A

**2005
EDUCATION
AND
PROMOTIONAL MATERIAL**