

*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*



SEPTEMBER 2005

South Nation Conservation **CLEAN WATER PROGRAM** 2004 Annual Report

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2004 Clean Water Program Annual Report

TABLE OF CONTENTS

1. Clean Water Program Background	2
2. 2004 Clean Water Program Funding.....	2
3. 2004 Clean Water Committee Membership	4
4. 2004 Clean Water Program Grant Structure	5
5. Clean Water Program Representatives.....	6
6. Biosecurity	7
7. Landowner Confidentiality.....	7
8. Project Summary.....	8
8.1 Completed Projects.....	8
8.2 Phosphorus Reduction Calculations	15
8.3 Phosphorus Reduction Analysis	15
9. Total Phosphorus Management	18
9.1 TPM Evaluation.....	19
10. Water Quality Monitoring.....	19
10.1 Surface Water Monitoring	19
10.2 Groundwater Monitoring.....	21
11. Agriculture Canada Research Projects	22
11.1 Microbial Source Tracking (MST).....	22
11.2 Watershed Evaluation of Beneficial Management Practices (WEBs)	23
12. Water Response Team	24

2004 Clean Water Program Annual Report

13. Eastern Ontario Water Resources Committee	24
13.1 SNC Projects Completed with EOWRC Funding	25
14. Ottawa Rural Clean Water Program	26
15. Education and Promotion Activities.....	27
16. Budget	29
16.1. 2004 Clean Water Program Budget	29
16.2. 2004 Clean Water Program Budget Notes.....	30
17. Recommendations for 2005 Clean Water Program	33
18. Appendices	34

LIST OF TABLES

Table 1. 2004 Clean Water Program Grant Structure	6
Table 2. Summary of Completed Projects in 2004.....	8
Table 3. 2004 Clean Water Program Completed Projects	10
Table 4. Clean Water Program 1993-2004 Project Summary	13
Table 5. 2004 Clean Water Program Budget	29

LIST OF FIGURES

Figure 1. Phosphorus Reduction by Project Type, 1993-2004	16
Figure 2. Phosphorus Reduction Cost Effectiveness, 1993-2004	17

APPENDICES

Appendix A. 2004 Educational and Promotional Material	35
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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 \$1.6 million has been granted to local farmers and landowners for 424 projects that address non-point source pollution and protect surface and ground water quality. Total cost of these projects is estimated at \$5,723,079.

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 pollute and cost effectiveness.

2. 2004 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 16.

a) St. Albert Cheese

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



2004 cheque (\$7,000) presentation to Clean Water Committee from St. Albert Cheese.

b) Agricultural Environmental Stewardship Initiative

SNC secured \$238,000 from the Agricultural Environmental Stewardship Initiative (AESI) in August 2001 for the Clean Water Program. The funding will support the Program from July 2001 to December 2004.

Funding of \$2.475 million AESI program is provided by the Agriculture and Agri-Food Canada's Canadian Adaptation and Rural Development Fund and delivered cooperatively by Ontario's Agricultural Adaptation Council (AAC) and the Ontario Farm Environmental Coalition (OFEC).

SNC will use the \$238,000 to augment the Clean Water Program by increasing the grant budget, allowing the CWC to fund more projects, and enhancing educational outreach (e.g. Program brochure revisions, presentations to agricultural and community groups, and best management practices (BMP) workshops). The completion of an Environmental Farm Plan is a pre-requisite for projects receiving AESI grant funding.

A total of \$122,586 was utilized in between the 2001 – 2003 Clean Water Programs. In 2004, an additional \$33,504 was allocated. Over the length of the Program, SNC utilized \$156,090 of the available \$238,000.

The failure to allocate the total available funding can be attributed to several factors, such as: uncertainties with emerging Nutrient Management Act, financial constraints due to the BSE crisis, eligibility restrictions, and the Environmental Farm Plan prerequisite for accessing the AESI funds.



Landowner with Bob Bedggood (on right), Chair, Agricultural Adaptation Council, at a barnyard runoff control project during tour of AESI projects, July, 2004.

c) Total Phosphorus Management

A total of two municipalities contributed \$83,414 in funding to the Clean Water Program in 2004 as part of their Total Phosphorus Management (TPM) agreements with South Nation Conservation. For more information on the TPM program and individual municipality contributions please refer to section 9 Total Phosphorus Management.

d) South Nation Conservation

The South Nation Conservation Board of Directors approved a total contribution of \$13,762 to the Clean Water Program in 2004. SNC's contribution to the Program comes from Municipal levy dollars. This cash contribution does not include time for senior staff support of Program implementation and reporting.

e) R.W. Tomlinson Ltd.

R.W. Tomlinson Ltd. made a 4-year, \$25,000 commitment to the SNC's water quality programs. In 2004, the 1st instalment of \$10,000 was presented to SNC. The funding was directed to monitoring initiatives, including the re-establishment of the RiverWatch Program. A small portion of the funding was used for education and promotion initiatives for the Clean Water Program.



(l to r) Ron Tomlinson (R.W. Tomlinson), Dennis O'Grady (SNC, GM), Claude Cousineau (SNC, Chair), Doug Thompson (SNC, Director) at Tomlinson Media Event, Andy Shields Park, Greely, October 21, 2004.

f) Eastern Ontario Water Resources Committee (EOWRC)

In 2004, EOWRC approved funding to the Clean Water Program for promotion (\$1,000) and the Total Phosphorus Management Evaluation (\$5,000) for a total contribution of \$6,000.

In addition to the above contribution, EOWRC and the United Counties of Stormont, Dundas & Glengarry provided \$24,500 in funding for Abandoned Well Decommissioning grants and project delivery in Eastern Ontario. Refer to section 13 for more information.

3. 2004 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 (agriculture accounts for ~60% of the watershed landuse) that has proven beneficial for networking with landowners within the

South Nation 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.

2004 Clean Water Committee membership:

- Denis Perrault, Committee Chair
- Erling Armson, Ducks Unlimited Canada
- John Brown, Parmalat
- Luc Burnet, Ontario Ministry of Agriculture and Food
- Archie Byers, South Nation Conservation
- City of Ottawa Rural Clean Water Program (staff Representative)
- Conrad deBarros, Ministry of Environment
- Claude Cousineau, Chair, South Nation Conservation
- Alan Kruszel, Eastern Counties Rep, Federation of Agriculture
- René Lalonde, Beef Farmer
- Conrad Lamadeleine, Village of Casselman
- Keith Matthie, Soil & Crop Improvement Association
- Gaston Patenaude, Vice-Chair, South Nation Conservation
- Jackie Pemberton, Dairy Farmer
- Denis Pommerville, Nation Municipality
- Estella Rose, North Dundas Township
- Norm Tinkler, Dairy Farmer
- Adrian Wynands, Grenville Land Stewardship Council

4. 2004 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.

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.

2004 Clean Water Program Annual Report

Table 1: 2004 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
Fuel, pesticide, fertilizer 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

* Funding provided by EOWRC and the United Counties of Stormont, Dundas & Glengarry for this project type.

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) assisting with Program delivery in 2004.

The Reps completed approximately 85 site visits and attended 10 meetings, training sessions and promotional events to represent the Clean Water Program in 2004. The cost to use Reps in 2004 was \$6,626; this has proven to be a cost effective delivery model and will be recommended for continued use in 2005.

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 City of 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 written permission from the landowner.

8. PROJECT SUMMARY

8.1 COMPLETED PROJECTS

In 2004, the Clean Water Program provided \$112,912 in grants to 60 projects, reducing annual phosphorus contributions to watercourses by approximately 959 kilograms/year. The total cost of these 60 projects was \$423,910; therefore, landowner contributions totalled \$310,999 (an average contribution of \$3 for every \$1 granted).

Table 2 provides a summary of the projects (by project type) completed under the 2004 Clean Water Program. Information is provided on the number of projects, phosphorus reduction, and project costs. A total of 66 projects were approved in 2004; 60 projects were completed and 6 projects did not proceed.

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	5	4	46.6	\$103,960	\$91,960	\$12,000
Livestock Fencing	7	7	62.5	\$31,340	\$6,665	\$24,675
Buffer Strip	1	1	2.1	\$1,705	\$853	\$853
Manure Storage	7	6	396	\$151,624	\$115,049	\$36,576
Milkhouse Wastewater	5	4	162.2	\$71,081	\$60,062	\$11,019
Nutrient Management Plans	3	3	263.3	\$5,905	\$4,405	\$1,500
Fuel, Chemical and Pesticide Storage	6	5	n/a	\$10,384	\$5,989	\$4,396
Septic System Repair	12	12	26	\$103,960	\$91,960	\$12,000
Wellhead Abandonment	20	18	n/a	\$19,179	\$10,179	\$9,000
Educational Initiatives	0	0	n/a	\$0	\$0	\$0
TOTALS	66	60	958.9	\$423,910	\$310,998	\$112,912



Manure storage - Before



Manure storage - After

Table 3 provides details of the projects completed in 2004. This information includes project code, municipality, project type, and estimated phosphorus reduction. Phosphorus reduction calculations are available upon request.

Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2002-NDU-CW71	North Dundas	Barnyard Runoff Control	Info not available	\$9,607.47	\$4,803.74	\$4,803.73
2003-NDU-CW43	North Dundas	Barnyard Runoff Control	Info not available	\$12,943.64	\$7,943.64	\$5,000.00
2004-APL-CW52	Alfred Plantagenet	Buffer Strip	2.1	\$1,705.00	\$852.50	\$852.50
2004-NST-CW11	North Stormont	Clean Water Diversion	18.0	\$1,535.28	\$767.64	\$767.64
2004-NST-CW19	North Stormont	Clean Water Diversion	28.6	\$4,645.41	\$2,322.70	\$2,322.71
2003-NDU-CW36	North Dundas	Fencing	1.8	\$349.99	\$69.27	\$280.72
2004-APL-CW13	Alfred Plantagenet	Fencing	3.2	\$1,363.60	\$114.56	\$1,249.04
2004-APL-CW29	Alfred Plantagenet	Fencing	29.3	\$10,435.74	\$5,435.74	\$5,000.00
2004-NAT-CW28	Nation	Fencing	11.5	\$4,463.21	\$0.00	\$4,463.21
2004-NDU-CW17	North Dundas	Fencing	12.1	\$6,045.82	\$1,045.82	\$5,000.00
2004-NDU-CW20	North Dundas	Fencing	1.8	\$3,948.18	\$0.00	\$3,948.18
2004-NGR-CW12	North Grenville	Fencing	2.8	\$4,733.38	\$0.00	\$4,733.38
2004-NAT-CW04	Nation	Fuel Storage	n/a	\$1,864.81	\$932.40	\$932.41
2004-NAT-CW16	Nation	Fuel Storage	n/a	\$2,066.28	\$1,066.28	\$1,000.00
2004-NDU-CW38	North Dundas	Fuel Storage	n/a	\$2,426.38	\$1,426.38	\$1,000.00
2004-NST-CW35	North Stormont	Fuel Storage	n/a	\$3,100.00	\$2,100.00	\$1,000.00
2004-NST-CW41	North Stormont	Fuel Storage	n/a	\$926.96	\$463.48	\$463.48
2003-NST-CW71	North Stormont	Manure Storage	106.8	\$7,572.52	\$3,786.26	\$3,786.26
2003-RUS-CW14	Russell	Manure Storage	n/a	\$1,887.06	\$0.00	\$1,887.06
2004-EDW-CW31	Edwardsburgh/Cardinal	Manure Storage	56.4	\$89,700.00	\$79,700.00	\$10,000.00

Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2004-NAT-CW06a	Nation	Manure Storage	81.4	\$24,228.01	\$14,228.01	\$10,000.00
2004-NAT-CW26	Nation	Manure Storage	101.5	\$23,902.84	\$15,167.51	\$8,735.33
2004-NST-CW21a	North Stormont	Manure Storage	49.9	\$4,334.03	\$2,167.01	\$2,167.02
2004-APL-CW02b	Alfred Plantagenet	Milkhouse Wastewater	34.5	\$625.59	\$312.79	\$312.80
2004-EDW-CW32	Edwardsburgh/Cardinal	Milkhouse Wastewater	55.2	\$15,275.00	\$10,275.00	\$5,000.00
2004-NAT-CW06b	Nation	Milkhouse Wastewater	31.1	\$53,767.50	\$48,767.50	\$5,000.00
2004-NST-CW21b	North Stormont	Milkhouse Wastewater	41.4	\$1,412.50	\$706.25	\$706.25
2004-NAT-CW27	Nation	Nutrient Management Plan	113.9	\$1,200.00	\$700.00	\$500.00
2004-NST-CW23	North Stormont	Nutrient Management Plan	96.9	\$3,292.50	\$2,792.50	\$500.00
2004-SDU-CW33	South Dundas	Nutrient Management Plan	52.4	\$1,412.85	\$912.85	\$500.00
2004-AUG-CW56a	Augusta	Plugging Abandoned Well	n/a	\$1,200.00	\$700.00	\$500.00
2004-AUG-CW56b	Augusta	Plugging Abandoned Well	n/a	\$2,500.00	\$2,000.00	\$500.00
2004-CLR-CW45	Clarence-Rockland	Plugging Abandoned Well	n/a	\$600.00	\$100.00	\$500.00
2004-EDW-CW44	Edwardsburgh/Cardinal	Plugging Abandoned Well	n/a	\$1,000.00	\$500.00	\$500.00
2004-EDW-CW55a	Edwardsburgh/Cardinal	Plugging Abandoned Well	n/a	\$1,000.00	\$500.00	\$500.00
2004-EDW-CW55b	Edwardsburgh/Cardinal	Plugging Abandoned Well	n/a	\$2,000.00	\$1,500.00	\$500.00
2004-NAT-CW46	Nation	Plugging Abandoned Well	n/a	\$625.00	\$125.00	\$500.00
2004-NAT-CW48	Nation	Plugging Abandoned Well	n/a	\$500.00	\$0.00	\$500.00
2004-NAT-CW49	Nation	Plugging Abandoned Well	n/a	\$693.99	\$193.99	\$500.00
2004-NAT-CW58	Nation	Plugging Abandoned Well	n/a	\$700.00	\$200.00	\$500.00
2004-NAT-CW06a	Nation	Manure Storage	81.4	\$24,228.01	\$14,228.01	\$10,000.00

Table 3: 2004 Clean Water Program Completed Projects - continued						
Project Code	Municipality	Project Type	P Reduction (kg/yr)	Total Project Cost	Landowner Share	Clean Water Program Grant
2004-NDU-CW50	North Dundas	Plugging Abandoned Well	n/a	\$1,360.00	\$860.00	\$500.00
2004-NGL-CW39	North Glengarry	Plugging Abandoned Well	n/a	\$1,300.00	\$800.00	\$500.00
2004-NGR-CW40	North Grenville	Plugging Abandoned Well	n/a	\$1,575.00	\$1,075.00	\$500.00
2004-NST-CW18	North Stormont	Plugging Abandoned Well	n/a	\$1,000.00	\$500.00	\$500.00
2004-NST-CW22	North Stormont	Plugging Abandoned Well	n/a	\$500.00	\$0.00	\$500.00
2004-NST-CW42	North Stormont	Plugging Abandoned Well	n/a	\$1,050.00	\$550.00	\$500.00
2004-NST-CW57	North Stormont	Plugging Abandoned Well	n/a	\$725.00	\$225.00	\$500.00
2004-NST-CW60	North Stormont	Plugging Abandoned Well	n/a	\$850.00	\$350.00	\$500.00
2001-NAT-CW26	Nation	Septic System	3.0	\$6,484.00	\$5,484.00	\$1,000.00
2004-APL-CW02a	Alfred Plantagenet	Septic System	1.2	\$2,000.00	\$1,000.00	\$1,000.00
2004-APL-CW10	Alfred Plantagenet	Septic System	0.6	\$9,152.25	\$8,152.25	\$1,000.00
2004-NAT-CW03	Nation	Septic System	1.8	\$12,708.45	\$11,708.45	\$1,000.00
2004-NAT-CW36	Nation	Septic System	3.6	\$5,381.96	\$4,381.96	\$1,000.00
2004-NDU-CW53	North Dundas	Septic System	3.0	\$11,396.00	\$10,396.00	\$1,000.00
2004-NGL-CW54	North Glengarry	Septic System	1.2	\$8,500.00	\$7,500.00	\$1,000.00
2004-NST-CW01	North Stormont	Septic System	3.6	\$7,505.00	\$6,505.00	\$1,000.00
2004-NST-CW07	North Stormont	Septic System	3.6	\$4,655.00	\$3,655.00	\$1,000.00
2004-SDU-CW51	South Dundas	Septic System	2.4	\$15,600.00	\$14,600.00	\$1,000.00
2004-EDW-CW24	Edwardsburgh/Cardinal	Septic System	1.2	\$16,492.94	\$15,492.94	\$1,000.00
2004-EDW-CW25	Edwardsburgh/Cardinal	Septic System	1.2	\$4,083.91	\$3,083.91	\$1,000.00
TOTALS		958.9	\$423,910.05	\$310,998.33	\$112,911.72	958.9

Table 4 provides a summary of the projects completed through the Program between 1993-2004. Since 1993, the Program has granted over \$1.6 million to complete 424 projects. These projects have reduced the annual phosphorus contributions to the watershed's rivers by over 9,150 kilograms.

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	\$88,856	\$51,043
	1995	19	19	111,014	75,014	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
Erosion Protection	1997	6	not available	\$23,115	\$13,416	\$9,700
	1998	4	not available	63,041	43,041	20,000
	1999	8	not available	49,078	18,041	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	118,579	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	115,049	36,576	
Barnyard Runoff/Clean Water Diversion	1999	1	21	\$14,536	\$9,586	\$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	2002	2	not applicable	\$ 8,634	\$5,334	\$3,300
	2003	1	not applicable	1,418	818	600
	2004	5	not applicable	10,384	5,989	4,396

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	\$ 8,135	\$ 5,000
	1995	9	555	89,199	51,320	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	15,390	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	26,287	10,759
	2004	4	162	71,081	60,062	11,019
Commercial Wastewater	1997	1	not available	\$14,396	\$5,000	\$5,000
	2001	1	not available	11,615	6,115	5,500
Livestock Access Restriction	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
2004	7	63	31,340	6,665	24,675	
Buffer Strips	2003	1	16	\$ 599	\$284	\$315
	2004	1	2	1,705	853	853
Private Wellhead Protection/Repair	1999	1	not applicable	\$5,619	\$4,619	\$1,000
	2001	1	not applicable	1,018	558	560
	2002	2	not applicable	3,558	1,871	1,687
	2003	9	not applicable	14,340	8,850	5,490
Plugging Unused Wells	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
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		424	9,150	\$5,723,079	\$4,102,136	\$1,612,010

8.2 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 updated 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 on the calculations.

These calculations have been accepted by the Ministry of Environment as an accurate and defensible means to calculate phosphorus reduction for projects funded through the Total Phosphorus Management Program (see section 9 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.

8.3 PHOSPHORUS REDUCTION ANALYSIS

Since 1993, the Program has reduced phosphorus loading to watercourses by approximately 9,150 kilograms/year. The phosphorus reduction, percentage by project type, for 1993-2004 is illustrated in Figure 1.

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 86% of the total phosphorus reduction between 1993-2004. The high percentage (62%) for manure storages is partly attributed to the number of projects completed over the past ten years. A total of 92 of the 344 phosphorus-reducing projects completed between 1993-2004 have been manure storages.

2004 Clean Water Program Annual Report

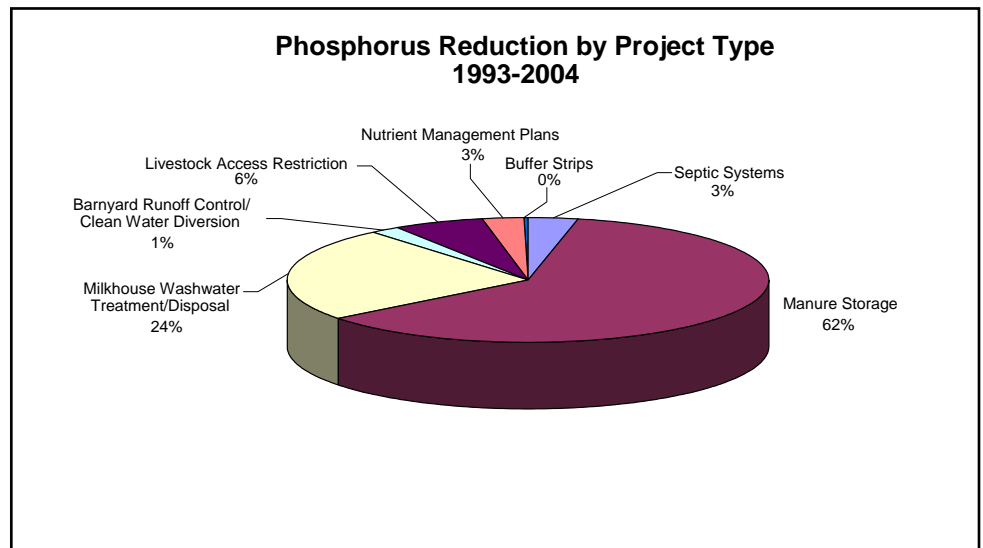


Figure 1: Phosphorus Reduction by Project Type, 1993-2004

Milkhouse wastewater treatment projects account for only 41 of the 344 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.

Septic system repair projects account for 128 of the 344 phosphorus-reducing projects, yet only 3% of the total phosphorus reduction; this project type has an average phosphorus reduction of only 2 kg/yr.

In order to maximize the benefits obtained through grant funding, the Clean Water Committee has placed a higher priority on the highest phosphorus reducing projects. Based on grant dollars per kilogram for phosphorus reduction, the cost per kilogram for each project type is illustrated in Figure 2.

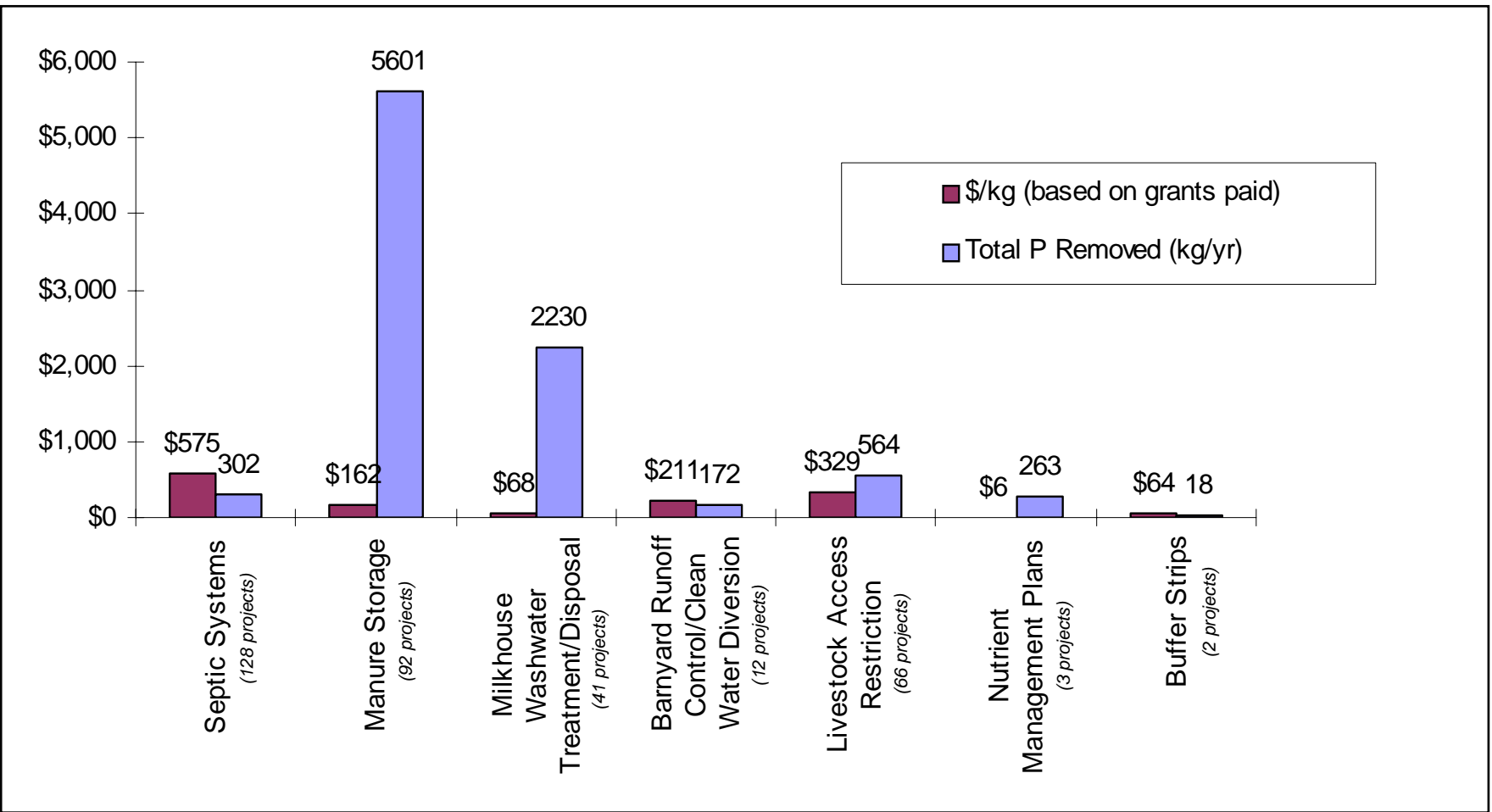


Figure 2: Phosphorus Reduction Cost Effectiveness, 1993-2004

9. TOTAL PHOSPHORUS MANAGEMENT PROGRAM

Total Phosphorus Management (TPM) Program is an innovative Ministry of Environment (MOE) approved pilot phosphorus management strategy for new or expanding municipal or industrial wastewater discharge facilities in the South Nation River watershed. TPM allows the option of removing these increased 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. 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 agreements.

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 agreements with 6 municipalities and 2 industries to deliver TPM Programs through the Clean Water Program. These agreements include:

- North Stormont Township for Village of Finch
- North Dundas Township for Winchester Village
- Nation Municipality for the Village of Limoges
- Nation Municipality/Village of Casselman for their joint landfill site
- Village of Casselman
- Lafleche Environmental Inc. for their landfill site

2004 Clean Water Program Annual Report

Once chosen, the TPM option is incorporated into the dischargers Certificates of Approval (licensing through the Ministry of Environment) and is legally binding.

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 \$673,930 of this total.

In 2004, 279 kg/year was credited to TPM projects. Since 2001, a total of 2,545 kg/yr phosphorus credits have been allocated to the six agreements.

9.1 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 will be completed in 2005.

10. WATER QUALITY MONITORING

10.1 SURFACE WATER MONITORING

SNC continues to collect surface water samples through the Provincial Water Quality Monitoring Network (PWQMN) and Watershed Characterization (WC) Networks. 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. These samples are tested at the Ministry laboratories



SNC staff collecting a surface water quality sample from a bridge using a sampling pole.

in Etobicoke, Ontario for suspended solids, major ions and nutrients, and metals. While at the sample site, SNC 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 2004, 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



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

SNC re-established the volunteer RiverWatch Program in 2004. 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.

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.

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 staff collecting a pesticide sample from the Little Castor River.

10.2 GROUNDWATER MONITORING

In 2001 and 2002, the MOE hydrogeologists and SNC staff identified 15 sensitive groundwater areas of concern within the SNR watershed that would be incorporated into the Provincial Groundwater Monitoring Network (PGMN). An additional area of concern was identified north of the SNR watershed, and was also added into SNC's commitment to PGMN.



SNC staff maintaining telemetry unit on a PGMN well.

In some of these areas of concern, monitoring wells were in place. Where there was no monitoring well present, the MOE subsidized the cost of drilling a monitoring well for use in this Provincial 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, fourteen of the sixteen wells have telemetry units installed allowing access to this information off site. The dataloggers currently collect 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. A message is

sent to SNC to verify the data from the well to ensure that it is accurate. Once SNC staff has confirmed the data to be reasonable, the data is relayed back to the MOE and 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.

Based on this 2003 analysis, staff selected 9 wells for annual water quality analysis. In 2004, the 2nd round of samples were collected from these wells and analyzed for nutrients and metals only.



SNC staff sampling a PGMN well for water quality analysis.

11. AGRICULTURE CANADA RESEARCH PROJECTS

11.1 MICROBIAL SOURCE TRACKING (MST)

A major 4-year water quality study is being undertaken 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 & AgriFood Canada (Ag Canada), and Health Canada.



SNC staff collecting a water sample from the Casselman water treatment plant intake.

- 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.
 - 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 weekly surface water quality monitoring program at 15 sites. SNC staff collects the samples and ship them to Ag Canada and Health Canada labs for analysis. SNC staff also sample additional events after rain events (>1 inch of rainfall) to monitor microbial inputs to watercourses from storm runoff.

11.2 WATERSHED EVALUATION OF BENEFICIAL MANAGEMENT PRACTICES (WEBS)

In early 2004, SNC began preliminary discussions with Ag Canada for the submission of a research proposal to evaluate the effects of beneficial management practices on a watershed scale. The proposed study would overlap with the MST study area to take advantage of its intensive surface water quality monitoring program.

The proposed study will assess the ability of selected beneficial management practices to decrease sources of various nutrients and bacteria to the river. If the proposal is successful, SNC will partner with Agriculture Canada to implement the WEBS research study in the sub-watershed of the Little Castor River, beginning in 2005.

12. WATER RESPONSE TEAM



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

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 2004, no low water occurrences were experienced, therefore the

WRT did not meet.

13. 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 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 and Food, and Federal Agriculture and AgriFood Canada)
- Conservation Authorities (South Nation and Raisin Region)
- Resource Stewardship Councils
- Eastern Ontario Health Unit
- University of Ottawa

The EOWRMS indicated 35 recommendations that are being developed and implemented. The SNC's Clean Water Committee is kept up-to-date on EOWRC projects and provides input to further the implementation of these projects. The Clean Water Committee's work supports many of the recommendations from EOWRMS.

13.1 SNC PROJECTS COMPLETED WITH EOWRC FUNDING

South Nation Conservation submitted and received funding for three initiatives that work towards achieving one or more of the 35 EOWRMS recommendations. These projects were:

- a) Abandoned Well Identification and Decommissioning Project
- b) Clean Water Program Promotion
- c) Total Phosphorus Management Program Evaluation

Abandoned Well Identification and Decommissioning Project

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.

A total of 36 wells were decommissioned and \$18,000 in grants was paid out to landowners. SNC worked with its partners to promote the well decommissioning grants and collect location information for a well database that was also set up as part of this project. Total EOWRC funding for this project, including delivery,

was \$24,500.

Clean Water Program Promotion

SNC and the Ottawa Rural Clean Water Program submitted a joint proposal (\$1,000 for each program) for funding to enhance promotion of the Clean Water Programs and best management practices.

SNC used the EOWRC funding to offer a fall watershed tour highlighting several projects that were completed through the Clean Water Program, water quality monitoring initiatives and other projects implemented by SNC. SNC also utilized the funding to produce and distribute new SNC “partnership” signs that were distributed to interested landowners who completed projects through the Clean Water Program.



Visit to a dairy farm during the SNC Fall Watershed Tour, September 21st, 2004.

Total Phosphorus Management Program Evaluation

SNC received \$5,000 towards the Total Phosphorus Management Program Evaluation that was undertaken by SNC in partnership with the Ministry of Environment. Refer to section 9 for more information on the evaluation.

14. 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, the South Nation Conservation withdrew the Clean Water Program from this portion of the South Nation River watershed located within the City’s boundaries.

The Ottawa Conservation Authorities (South Nation, Rideau Valley, and Mississippi) work in partnership with the City of Ottawa to deliver the Ottawa Rural Clean Water Program. SNC is the lead Conservation Authority in this partnership, which includes the coordination of Program Representatives, facilitation for the Ottawa Rural Clean Water Committee, payment of grants and performance incentives, payment of delivery expenses, and applicant coordination through the LandOwner Resource Centre (in Manotick).

15. EDUCATION AND PROMOTION ACTIVITIES

South Nation Conservation was involved in many different education and promotion events in 2004. These activities provide opportunities to inform people of how they can improve the natural environment on their properties. Appendix A provides examples of 2004 promotional material.

The key elements of the 2004 education and promotion campaign is outlined below:

- a) The following events were attended in 2004 to promote the grant programs and BMPs in general:
- Kemptville Dairy Day
 - Chrysler Farm Show
 - Embrun Farm Show
 - Ottawa Valley Farm Show
 - Spencerville Fair
 - Russell Fair Education Day
 - Metcalfe Fair



Rene Lalonde, Program Rep (on the left), staffing the SNC booth at the Chrysler Farm Show.

- b) Presentations were made to the following groups:
- Landowner Forum – Microbial Source Tracking
 - IUWPCP Workshop, Burlington, Ontario – TPM Presentation
 - Water Quality Trading Network, conference call – TPM Presentation
 - Non-point Source Workshop, Ocean City, Maryland – TPM Presentation
 - Casselman, Nation, and North Dundas Councils – TPM Presentations
 - Green Communities Well Aware Workshop – Well BMP Presentation
 - Water Efficiency Team (W.E.T.) workshops – Abandoned Well Decommissioning grants

c) SNC hosted tours for the following groups:

- Agriculture Adaptation Council – BMP projects completed through the Agricultural Environmental Stewardship Initiative funding program
- SNC Fall Watershed Tour – CWP projects, water quality monitoring initiatives, and other SNC projects/properties
- Conservation Fund, Pennsylvania – TPM Program



Visit to a barnyard runoff control project during the Agriculture Adaptation Council Tour, July 13th, 2004.

d) 2004 Clean Water Program Press Releases:

- “SNC Restores Back Volunteer Riverwatch” – March 23rd
- “Clean Water Applications Welcomed, Committee Member Sought” – April 19th
- “SNC Passes On Lessons Learned” – July 9th
- “Tomlinson Turns \$25,000 Over To Water Quality Monitoring” – October 20th

e) Different aspects of the Clean Water Program were featured in the SNC Watershed Update in January, February, March, May, June, August, and September.

f) Clean Water Program information was included on South Nation Conservation's web page (www.nation.on.ca).

g) Clean Water Program brochure was updated for 2004 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.

h) 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.

16. BUDGET

16.1 2004 CLEAN WATER PROGRAM BUDGET

Table 5 outlines the revenue and expenses for the 2004 Clean Water Program. Budget notes are provided in 16.1.1.

Table 5: 2004 Clean Water Program Budget

		2004	
		Budget	Actual
Contributions			
a	Parmalat Canada	\$25,000	\$0
b	South Nation Conservation	\$12,000	\$13,762
c	Total Phosphorus Management	\$124,392	\$83,414
d	Agriculture Environmental Stewardship Initiative	\$112,608	\$33,504
e	Human Resources and Skills Development Canada	\$0	\$7,613
f	St. Albert Cheese	\$0	\$7,000
g	Eastern Ontario Water Resources Committee	\$0	\$6,000
h	Ministry of Environment	\$0	\$3,000
i	Ottawa Rural Clean Water Program	\$13,500	\$4,613
	Total Contributions	\$287,500	\$165,477
Expenses			
j	Program Grants	\$210,000	\$101,477
k	Education/Promotion	\$4,000	\$3,037
l	Monitoring	\$3,000	\$2,238
m	Committee Expenses	\$5,000	\$5,533
n	Program Reps	\$7,000	\$6,626
o	Program Expenses	\$5,000	\$3,764
p	Program Staff	\$40,000	\$27,945
q	TPM Evaluation	\$16,000	\$10,244
r	Contingency Fund	\$13,500	\$4,613
	Total Expenses	\$287,500	\$165,477

16.1.1 2004 CLEAN WATER PROGRAM BUDGET NOTES

Contributions

a) Parmalat

Parmalat's potential donation of \$25,000 for 2004 was not realized.

b) South Nation Conservation

SNC contributed \$13,762 to the Clean Water Program Budget in 2004. Of this total, \$1,762 was for summer student support for monitoring activities.

c) Total Phosphorus Management (TPM)

SNC has received payments from North Dundas Township (Winchester) and Casselman sewage works projects in 2004. The TPM Program budget for 2004 was \$124,392. This budget included funding from the 2005 TPM Budget to meet project demand for grant funding and to support the TPM Program Evaluation.

The total 2004 TPM expenditure was \$83,414 and was allocated to grants, Program delivery, and the TPM Program Evaluation. Several approved projects did not proceed in 2004, this accounts for the majority of unspent dollars. These funds will be returned to the 2005 TPM Budget.

d) Agricultural Environmental Stewardship Initiative (AESI)

The Clean Water Program received \$238,000 from the AESI funding program to support Best Management Practice grants, promotion and marketing, research, education, and committee support. These funds were allocated for the period of August 2001 to December 2004.

SNC allocated \$21,090 in 2001, \$70,474 in 2002 and \$31,022 in 2003. As of 2003, all delivery dollars for this project were allocated; only grant dollars remain for the 2004 program year. The 2004 budget was for the remaining \$112,608 of the AESI funds. A total of \$33,504 was spent from the AESI dollars in 2004.

e) Human Resources and Skills Development Canada (HRSDC)

No funding from Human Resources and Skills Development Canada was budgeted for in 2004. Staff was able to secure funding from HRSDC to cover part of the staffing costs for the Program. A total of \$7,613 was received in 2004 for the Clean Water Program.

f) 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.

g) Eastern Ontario Water Resources Committee (EOWRC)

The Eastern Ontario Water Resources Committee provided \$6,000 in funding to the Clean Water Program in 2004. This funding was allocated to Clean Water Program Education/Promotion (\$1,000) and the TPM Evaluation (\$5,000).

An additional \$24,500 was received from EOWRC and the United Counties of Stormont, Dundas & Glengarry for the Abandoned Well Decommissioning project. This contribution is NOT reflected in the budget presented in section 16.1.

h) MOE

Ministry of Environment contributed \$3,000 in 2004 for the TPM Evaluation.

i) Ottawa Rural Clean Water Program (RCWP)

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 2004 Program budget as contingency funding.

A total of \$4,613 from the contingency fund was spent in 2004. The remaining \$8,887 will be carried into 2005 as a contingency fund.

Expenses

j) Project Grants

The budget for grants in 2004 was \$210,000; the majority of this total was from the AESI funding and was contingent on project applications that met the AESI eligibility criteria. In 2004, at 50 - 75% cost share with a maximum grant, the Clean Water Program funded 42 projects and allocated \$101,477 (not including abandoned well decommissioning projects) in grants to watershed landowners. Unspent TPM will be returned to the 2005 budget.

Refer to the "Clean Water Program: Application Process, Grant Structure, and Project Guidelines" for project guidelines and grant rates.

k) Education and Promotion

Education and promotion budget for 2004 was \$4,000. Expenses for 2004 totalled \$3,037 for brochures, press releases, Program tour, and fairs/events. Costs were lower than budgeted because activities were shared with the other partners/Programs.

l) Monitoring

A budget of \$3,000 for Monitoring was allocated for 2004. The Ministry of Environment contributes approximately \$20,000 in-kind services for laboratory analysis for the surface water sampling.

Total costs in 2004 were \$2,238. Monitoring expenses included water quality sampling staff support, monitoring supplies, and vehicle charge-back.

m) 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 2004 was \$5,000 and the expenses for the year totalled \$5,533.

n) Program Representatives

Program Representatives are paid an hourly wage and mileage in accordance with SNC rates. Representatives complete site visits to assist landowners with the application process. Representatives also provide delivery support for Program education and promotion. The 2004 budget for Reps was \$7,000 and expenses totalled \$6,626.

o) Program Expenses

The budget for Program expenses in 2004 was \$5,000 and included travel expenses, supplies, staff training, and translation. Expenses for 2004 totalled \$3,764.

p) Program Staff

The budget for Program staff in 2004 was \$40,000. Program staff expenses in 2004 totalled \$27,945. Staff was able to secure funding from outside sources to reduce staffing costs in 2004. Part of the staff positions are also funded through the SNC Water Quality Operational Budget.

q) TPM Evaluation

The Total Phosphorus Management Program was scheduled for an evaluation following the 5th year of implementation. The evaluation commenced in 2004 and will be completed in 2005. The EOWRC, MOE and TPM Program contributed \$10,244 towards this project in 2004.

r) Contingency Fund

The \$13,500 in the contingency fund is from the unallocated dollars returned from the Ottawa RCWP (*see note j) above*). These funds were placed in a contingency fund for allocation when needed. A total of \$4,613 was allocated in 2004; \$2,435 was allocated to project grants (*in addition to the \$101,477 in budget note k*)), and the other \$2,178 was used to offset staff costs for Program delivery. The remaining \$8,887 will be carried-over to 2005 as contingency funding.

17. RECOMMENDATIONS FOR 2005 CLEAN WATER PROGRAM

The following recommendations are based on 2004 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 2005 to reduce Program delivery expenses.
- c) That the Committee membership be reviewed in 2005 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 2005. 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.

- 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 re-established Riverwatch program, and that staff investigate the possibility of purchasing additional phosphorus testing kits with a higher level of accuracy.
- 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.
- n) That the Clean Water Committee, as part of the local Water Response Team, continues to promote water conservation and investigate options for water retention projects to help alleviate drought conditions.

18. APPENDICES

Appendix A – Education and Promotional Material from 2004 Program



APPENDIX A

2004 EDUCATION AND PROMOTIONAL MATERIAL

(An electronic copy of this Appendix is currently not available, if you wish to receive a hard copy of this report including the Appendix, please contact South Nation Conservation)