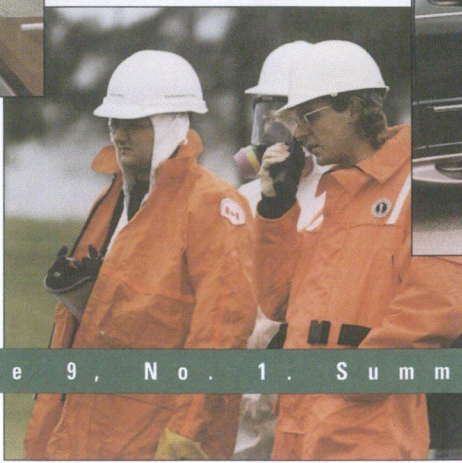
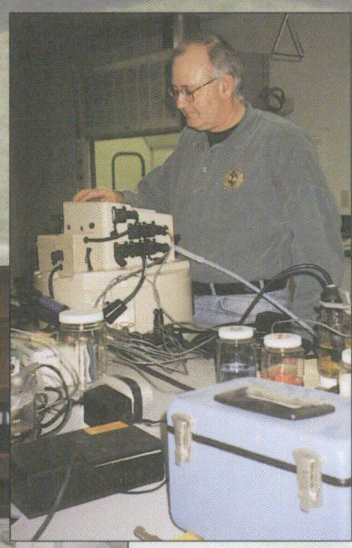
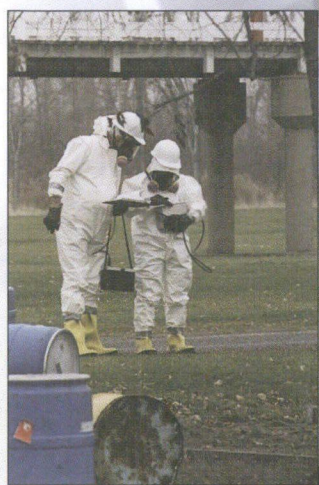


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Let's talk green

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TALK GREEN



Special Enforcement Issue

Volume 9, No. 1, Summer 1999

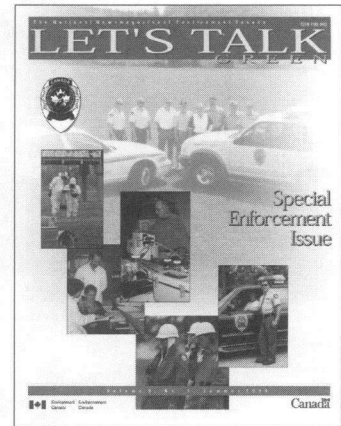


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Protecting Canada's resources

I am pleased that this issue of *Let's Talk Green* is dedicated to the women and men at Environment Canada who work on enforcement issues throughout the country. Our work in the area of enforcement is an essential tool for preserving today's environmental and wildlife resources for the enjoyment of future generations.

I recently had the pleasure of speaking with some of Environment Canada's enforcement staff. As with so many of our programs, people working in enforcement represent the Department's strength. Approximately 155 people in our Department are involved in enforcement activities across Canada. Their primary tools are the Acts and regulations relating to wildlife, pollution and the pollution provisions of the *Fisheries Act*. When the new *Canadian Environmental Protection Act* is passed, Environment Canada will have new tools to better enforce our laws and ensure fairness and equity in the application of the new Act. These include new enforcement responses such as environmental protection alternative measures and environmental protection compliance orders.

As you may know, the Department has embarked on an internal review of enforcement activities through the EC Enforcement Action Plan. This is an excellent opportunity for Regions and Headquarters to work closely together to seek solutions to mutual problems. Good work and good progress are continuing on the projects that comprise the Action Plan. Most projects will be completed by this summer and I look forward to the outcomes and to communicating them to you.

I hope you will take the time to read through this issue. It tells the story of our enforcement staff, describing their achievements and contributions to the Department. I would like to extend my thanks to our staff for the important work they do and to their commitment to protecting the environment for Canadians—today and in the future.

Len Good
Deputy Minister



"Old Growth Forest", Vancouver—Brad Cumming



Enforcing our environmental laws.....

Canada is rich in cultural, physical and geographic diversity. It's the second largest country in the world. Most of its 30.3 million citizens live in an area which is almost 10 million square kilometers. The coastline is almost 250,000 kilometers long, while the land border with the United States (including Alaska) is approximately 9,000 kilometers and has been undefended since 1814. An average annual snowfall in Charlottetown, P.E.I. is 339 centimeters, while in Victoria, B.C. it is only 47 centimeters. Most of all, we have more hockey rinks than any other country in the world.

And, at a federal level, Environment Canada's 95 pollution and wildlife enforcement officers protect it all.

Ruling powers

Canada's Constitution, written in 1867, addresses many aspects of governments' roles and responsibilities for the country, but it never mentions the environment. Environmental protection is shared between the federal, provincial and territorial governments. Generally, provincial governments have jurisdiction over land and natural resources while the federal government is responsible for

the criminal law, international affairs, transboundary matters and legislation affecting activities in the northern territories.

Environment Canada's Enforcement Program

When EC was created in 1971, no specific office was charged with enforcing the early legislation. The *Canadian Environmental Protection Act (CEPA)* became law in 1988, combining provisions on the control of toxic chemicals with existing legislation on clean water and air, environmental contaminants and ocean dumping. New enforcement

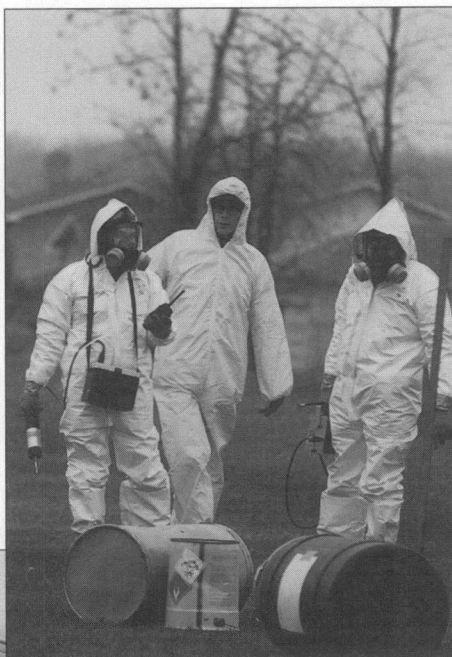
powers were also included and inspector designations were provided to a large number of staff. This led to the creation of the now decade-old Office of Enforcement (OOE). The Wildlife Enforcement Division of the Canadian Wildlife Service, responsible for enforcing the *Migratory Birds Convention Act*, *Canada Wildlife Act* and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA)*, joined the office in late 1993.

The OOE remains the largest component of an expanded headquarters Enforcement Branch which promotes national consistency and provides support to the five regional enforcement operations. These are essentially independent, subject to consensual arrangements reached to achieve national consistency in policy, priorities and operational approaches.

Knowing the law

Current responsibility for wildlife enforcement reflects a long and storied history. The *Migratory Birds Convention* was ratified in 1917, with Canada and the United States as signatories. A wildlife enforcement arm has existed since that time, expanding to include protected areas and the illegal transboundary movement of endangered and/or native species of wild animals and plants. Our 35 wildlife enforcement officers achieve a great deal, forging partnerships with other agencies and working with the public. Environmental pollution laws and regulations establish performance standards which, if met, help protect the environment and human health.

Of course, making companies comply with the legislation is easier said than done. From compliance promotion at one end, to verifying through inspections and imposing

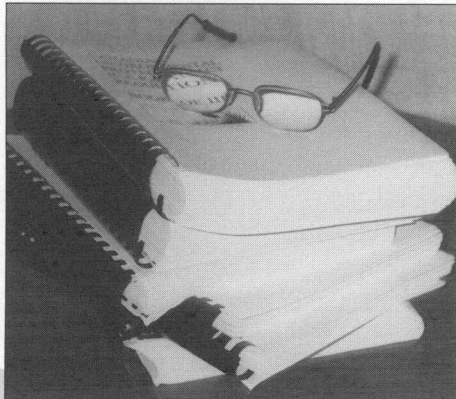


Janet Fewster

A team learns how to prepare for a major event during an enforcement training workshop.



Danielle Couture and Glen Ehler—on the road during the filming of EC's INTERPOL videos.



George Pilpe

Enforcement officers need to know a huge stack of legislation—including what it all means and how to enforce it. Without a doubt, it's a BIG job!

compliance by court order at the other, it's a continuous process. In some situations, promotion isn't enough to motivate a non-compliant company. Surveys indicate that promotion without potential penalties are not likely to be effective. As well, new regulations, like those controlling new chemicals entering the country, require additional skills. Often, instead of traditional end-of-pipe sampling, inspectors and investigators need to conduct forensic audits—reviews of

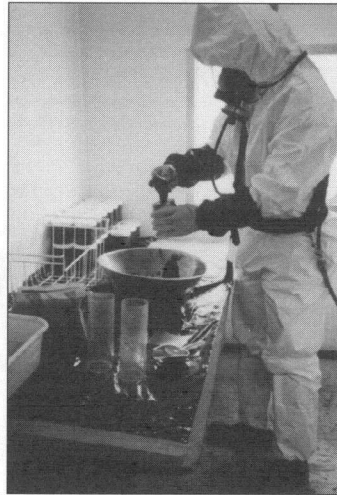
companies' records utilizing an in-depth understanding of industry processes and procedures. In the end, enforcement actions cannot solve all compliance problems. A clever and fair enforcement system motivates compliance.

Continuous change

Following 'The Plan'

Significant changes are on the horizon for enforcement. Many of these are the result of 15 projects designed at a national enforcement workshop held last June. Staff and managers spent two and a half days developing the elements of what is now known as the Enforcement Action Plan. The projects aim at improving policy, program management, enforcement tools and resources. The Plan will be delivered over the summer and will include a business case to identify the resources required for an effective EC

Enforcement Program. One new feature relates to the creation of an intelligence capacity within the enforcement program—providing



From serving warnings to dangerous sampling, enforcement officers do it all.

the strategic and tactical strength necessary to take actions against those who commit environmental offences for economic or other reasons. Information on the Enforcement Action Plan Project is available on EC's internal intranet, at <http://infolane.ec.gc.ca> under Departmental Resources.

Committed to the environment

Target areas for inspections and investigations include: wildlife smuggling and commercialization, import/export of hazardous waste and ozone depleting substances, the New Substance Notification Program and the National Pollutant Release Inventory. Enforcement responsibilities are always increasing—between 1994 and 1997, nine new regulations were introduced under CEPA, leading to an increase in the number of regulatees covered by the legislation. Amendments were made to the Migratory Birds Convention, leading to changes in our own law—the *Migratory Birds Convention Act*. Resources stayed virtually the same during this period. The expected release of the renewed CEPA in the fall of 1999 may

Continued on page 6



Inspecting a glycol leak at Toronto's Pearson Airport.

Setting their CITES

The roles and responsibilities of EC Enforcement are ever-changing. In the past few years there has been a significant rise in the number of species controlled under the trade of illegal species at risk, as well as hundreds of new CITES resolutions detailing how this should be done. From coral, to rhino horn, to mahogany—its up to the wildlife enforcement officers to make compliance happen. Staff across Canada have to enforce the trade of more than 40,000 species—and their byproducts. An expansive core of expertise and flexibility is required to keep up with this swelling demand.



Enforcing our environmental laws

Continued from page 5

introduce even more powers and sanctions, and will require additional training for enforcement staff.

Enforcement in harmony

In January 1998, the Canadian Ministers of the Environment signed a Canada-Wide Environmental Inspection Sub-Agreement. Now, they're working on the second item—a Sub-Agreement on Enforcement which will deal with items such as investigations and prosecutions. The harmony is already showing—at a federal-provincial workshop held in May 1998, participants began exploring opportunities to exchange information and coordinate inspector training programs. Headquarters and regional members of the National Enforcement Program are key players in the design and implementation of these two sub-agreements.

And the changes continue

In addition to ongoing operations, EC's Enforcement Branch has been conducting research on Canadian and international approaches to improving compliance/performance reporting. Over the last two years, EC and the Commission on Environmental Cooperation have been conducting research with other government departments and consulting with non-government organizations and other agencies. The Enforcement Program will continue these efforts by better defining regulated communities so that more statistically representative compliance information can be reported. The new information system, NEMISIS (see page 23), also offers new possibilities for increasing data gathering and analysis efficiencies. Information: **Daniel Couture** (819) 953-1174.

Intelligent intelligence

According to the Solicitor General, organized crime has been taking a hold on the environment, especially in the smuggling of endangered wildlife and ozone depleting substances and the disposal of hazardous waste. Developing a new intelligence capacity will help to focus our efforts and determine the scope of the problem.

Ontario's bird's eye view on enforcement



Over 30% of all Canadian migratory bird permits are sold in southern Ontario. The area, with its moderate climate, natural marshlands, strong recruitment of local birds and abundance of food supports the second highest concentration of migrating waterfowl in North America. Not surprisingly, migratory bird species are a critical area of interest for the Canadian Wildlife Service's Ontario Region Enforcement Office.

The use of bait to attract waterfowl during the fall migration is legal under permit from the Canadian Wildlife Service (CWS). Under the *Migratory Birds Convention Act* (MBCA), hunting is prohibited within 400 metres of deposited bait and it is illegal to deposit any bait for waterfowl within 14 days of the open season, or during the open season, without a permit.

Abuse of baiting practices has been an issue since the practice of baiting was first regulated. Waterfowl hunted over artificially deposited bait are at a great disadvantage and harvest rates, as a result, increase significantly under these circumstances.

Policing bird baiters

Operations involving various wildlife enforcement agencies have been conducted over the past decade in an attempt to stop illegal activity, including illegal baiting, which adversely affects migratory bird species protected under the MBCA. The Ontario Ministry of Natural Resources (OMNR), the CWS and the United States Fish and Wildlife Service (USFWS) are among the agencies that have been involved in these investigations.

A "fine" reward

A joint forces operation conducted with the USFWS to investigate the illegal, international trade in migratory birds and their eggs resulted in convictions for 12 individuals from Canada and the U.S., with sentences totaling two years jail time and over \$160,000 in fines. Another joint forces operation involving the OMNR and the CWS resulted in fines totalling \$10,500 for two American-owned hunt camps caught illegally depositing bait. Charges against individuals in connection to this investigation are still before the courts. Conviction of an offence under the MBCA can carry fines of up to \$250,000 for a corporation and/or jail time of up to five years.

Since the signing of the MBCA in 1916, the CWS has been actively involved in the protection of migratory bird species. By continuing to monitor compliance and effectively enforcing the requirements of the MBCA, Environment Canada hopes to ensure that these birds will be flying free far into the next century.

Information: **Dane Wesley** (519) 826-2099.



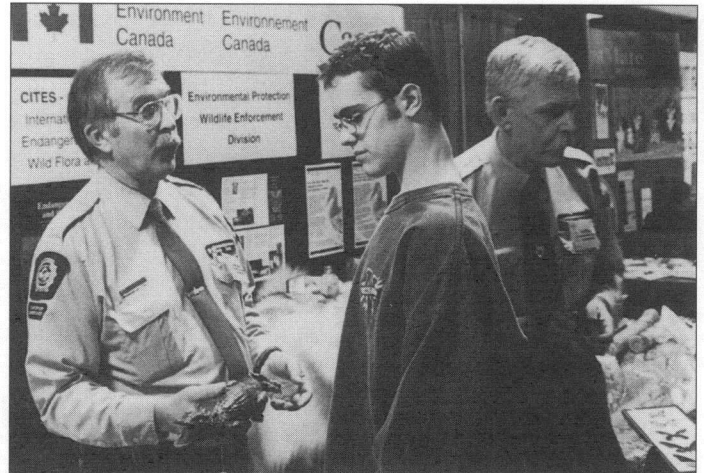
Travellers beware

If you're heading south of the border remember that some souvenir purchases may not be a wise choice—either for your pocketbook or for the plight of endangered species.

In Fall 1998, the Wildlife Enforcement Division (Prairie and Northern Region) launched a compliance promotion campaign directed at winter travellers heading to the southern United States, Mexico and other favorite holiday destinations. The campaign was to raise awareness among travellers about potential souvenir purchases which may come from animals and plants that are, or may be, threatened with extinction.

Promotional activities throughout the Region include airport exhibits and wall displays, intensive brochure distribution to travel agencies, and television and radio public service announcements featuring an unsuspecting traveller whose souvenirs are seized at the border. Manitoba's CBC TV program *Buyer Beware* also ran a story about travelers and souvenir purchases, featuring wildlife enforcement officer Richard Labossiere.

The more common souvenir items brought back by travellers in western Canada are coral, conch shells or cactus plants, which currently require permits under the



Wildlife enforcement officers (far left) Wayne Spencer (Edmonton) and (far right) Larry Ottman (Calgary) bring their message to the public during the Edmonton Sportsman Show.

Convention on International Trade in Endangered Species (CITES). Federal warehouses are full of these and other, more bizarre items, such as dead iguanas, crocodile head bookends and stuffed baby alligators posed smoking a pipe.

Information: **Nancy Hnatiuk** (204) 983-4819 or **Kathryn Labach** (780) 951-8717.

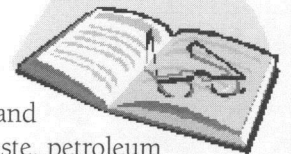
The law and Real Property

Environment Canada assists Canadians from coast to coast—which means we have to operate a vast array of facilities in all provinces and territories. The varied profiles and location of these facilities requires that managers have knowledge of many legal obligations. The acquisition, operation, and divestiture of real property can become quite complex for facility managers responsible for ensuring that EC complies with the law.

HQ's Real Property and Security Office and its Environmental Management team can offer support and tools to help facility managers or other interested employees address their custodial responsibilities. In particular, you should consult the following guides:

Environment Canada's Guide to Environmental Legislation

This *Guide* assists EC facility managers and operations employees in complying with relevant federal environmental statutes and regulations. It gives an overview of federal environmental statutes, regulations, guidelines and codes of practice in a Q&A format. In its 11 chapters, the *Guide*



introduces Offences and Due Diligence and regulated subjects such as hazardous waste, petroleum products, contaminated sites or air emissions. It's available on Infolane at: http://infolane.ec.gc.ca/applic/cs_admin/Admin/green/Download/complianceguide.htm

Real Property Management Framework for Environment Canada

This document addresses the need to clearly define and manage all aspects of property owned and leased by EC, including: organizational authority, policies, practices, technical systems, internal standards, and administrative and financial structures. One component of the document deals specifically with environmental issues. The framework will be completed in September 1999.

Remember—not knowing our legal responsibilities is not an adequate defence. For inquiries, contact the Real Property and Security Office at (819) 994-5891.

Information: **Linda Griffin** (819) 997-3632.



Improving communication

GUELPH. EC wildlife enforcement inspectors and Revenue Canada Customs officials have developed a new way to share information.

...OR update, an Ontario Region enforcement newsletter, reports on the latest news about the Convention on International Trade in Endangered Species (CITES) and the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA).

Necessity—the mother of invention

During training sessions conducted at Customs border ports in Ontario, participants expressed the need for

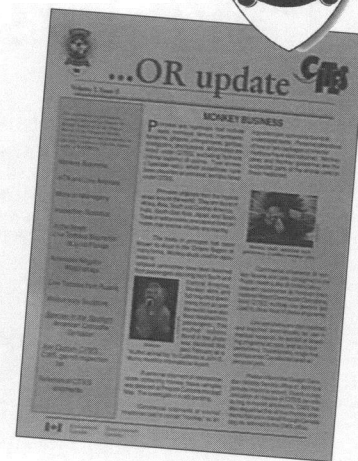
better communication. Since daily, one-on-one contact between inspectors and Customs officials was impossible, it was suggested that information on CITES goods, general information and CITES detentions could best be shared through a publication. Launched in the spring 1998 ...OR update encourages information exchange between the two agencies and helps enforcement staff improve WAPPRIITA implementation strategies.

What you'll find

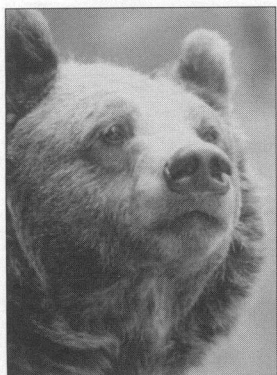
Up-to-date information is delivered regularly, encouraging more consistent Customs participation in Canadian Wildlife Service inspection program initiatives. Topics range from inspection statistics, detained items, prosecutions,

"Species in the Spotlight", Q&As from "Captain CITES" and international matters related to CITES implementation. Wildlife inspectors produce each issue on a rotational basis.

Information:
Carolyn Duffield (416) 739-5954.



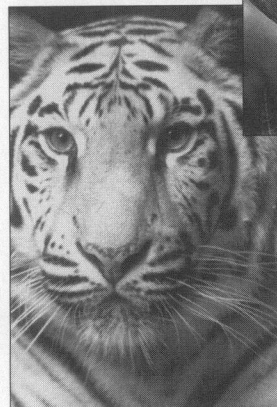
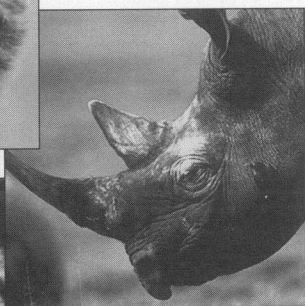
Retailers don't know the "bear" facts



Buyer beware when purchasing Traditional Chinese Medicines. You may be getting more than you bargained for.

In January 1997, allegations were made that Traditional Chinese Medicines containing ingredients from endangered animals were easily available throughout the Greater Vancouver area. EC snapped into action, creating the "Retail Inspection Project" to investigate these potential violations.

The regulatory inspection that followed focused on goods that were openly offered for sale or stored on the premises. In four months, investigators conducted 110 inspections and found 46 locations offering pharmaceuticals containing Appendix I species such as Tiger and Rhinoceros. The total retail value: \$16,128.39.



Inspectors found controlled Appendix II species at another 89 locations and 49 locations were in contravention of the *B.C. Wildlife Act* for possessing bear parts or ingredients. Most shop owners were aware of the prohibition of sale of endangered species, but were unaware of the provincial legislation on bear parts. Alarmingly, many shop owners were not well versed in the ingredient terminology for the products they sold (ie. "*Fel Uris*" refers to "bear bile"). They were given information packages in order to correct the problem.

One of the most satisfying results of the Retail Inspection Project was the discovery that most of the pharmaceuticals found in violation of the laws were old stock—materials imported 10 to 15 years ago. New stock items were purchased from suppliers outside B.C. Best of all, a steady decrease in the volume of sales of endangered species pharmaceuticals in Vancouver and Victoria indicates low market demand—contradicting many recent media reports.

Information: **Yvan Lafleur** (819) 953-4383.



Ontario Region—setting precedent

“Successful law enforcement doesn’t necessarily mean a conviction in court” says Bob Baxter, Senior Investigator, Environmental Protection Branch, Ontario Region.

When a circuit board company was caught transporting hazardous wastes without the proper paperwork, justice was served without ever having to set foot in a courtroom.

A law is broken

Under the *Canadian Environmental Protection Act (CEPA)*, EC must receive annual Notices if a company intends to export hazardous wastes. This way, EC can confirm

whether regulatory requirements for safe transport and disposal exist and the acceptance of the waste by the receiving country. The circuit board company had been exporting hazardous waste to a recycling facility in New Jersey since April, 1995. When their Environmental Manager neglected to renew their Notice in May 1996, the company had no system in place to catch his error. However, it was caught by EC’s Transboundary Movement Division. Stewart Teasell, Ontario Region CEPA inspector, was advised of the violation.

CEPA enforcement

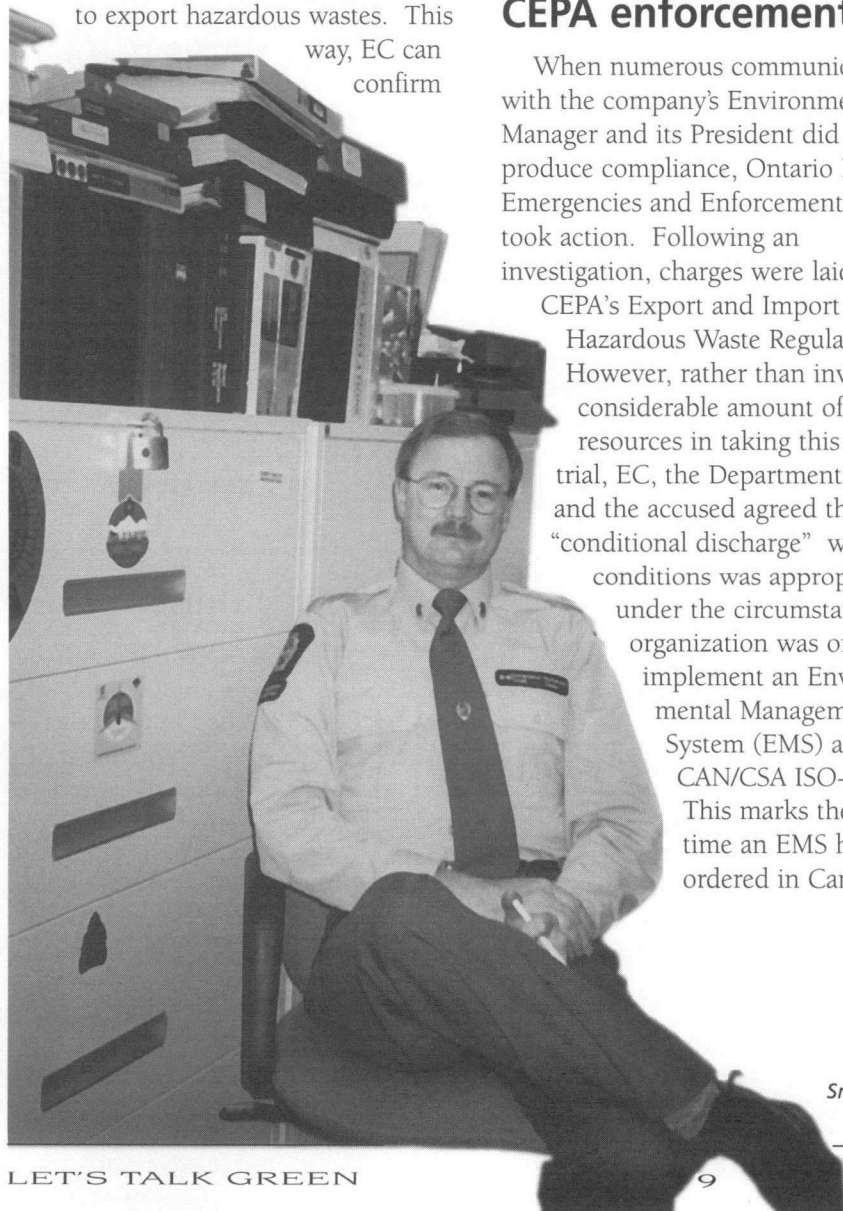
When numerous communications with the company’s Environmental Manager and its President did not produce compliance, Ontario Region’s Emergencies and Enforcement Division took action. Following an investigation, charges were laid under CEPA’s Export and Import of Hazardous Waste Regulations. However, rather than investing a considerable amount of time and resources in taking this matter to trial, EC, the Department of Justice and the accused agreed that a “conditional discharge” with strict conditions was appropriate under the circumstances. The organization was ordered to implement an Environmental Management System (EMS) and CAN/CSA ISO-14001-96. This marks the first time an EMS has been ordered in Canada.

A second precedent was the order to pay \$10,000 to the Manager of EC’s Emergencies and Enforcement Division, to financially aid the enforcement of the Act and the Regulations. The company was also ordered to pay \$20,000 to the Toronto Region Conservation Authority for their environmental education and awareness programs. Lastly, they were ordered (pursuant to section 130(1)(h) of CEPA) to perform community service which included hosting one training session focusing on circuit board manufacturing waste management and treatment.

All parties are satisfied with the results of this enforcement action which saw justice served using a minimum amount of time and resources. The company’s environmental reputation and diligence will undoubtedly benefit from the changes, but most importantly, the courts have set strong precedents to protect the environment.

Information:
Peter Levedag (416) 739-5901.

The Ontario Region welcomed a new Chief to its Enforcement staff in December. Gary Colgan, previously with Revenue Canada (Intelligence and Contraband Division), brings close to 25 years experience with Canada Customs operations, including expertise in wildlife biology, law enforcement experience, and management training.



Sr. Investigator Robert Baxter

Judith Ann Smith



Officers-in-training

In the world of environmental and wildlife enforcement, it takes a lot to get the job done. When officers are not out enforcing the legislation, odds are good they're somewhere learning how.

Back to school

The training division of the Office of Enforcement maintains a database which records and tracks all training received by individual enforcement officers, as well as the future dates when refresher training is required. However, in the mid-90s it was realized by regional and headquarters staff that there was a need for greater national consistency regarding the competencies required for both new and existing officers. These competencies were mostly knowledge based and included formal and informal education, degree of knowledge, experience and skill. Particular attention was given to matters involving Occupational Health and Safety—intimately linked to a national “job hazard/job risk” analysis performed after three work related fatalities.

Studying the need

A comprehensive “needs analysis” study began in 1995. The objectives of the study included:

- determining the current skill and knowledge of wildlife officers, pollution inspectors and investigators,



Learning to take accurate readings is essential for enforcement activities.

Janet Fewster

as well as the skills and knowledge they need to do their jobs;

- identifying the training needs common to all three positions; and
- developing minimum skill/knowledge standards.

Wildlife officers and pollution inspectors and investigators were given questionnaires to determine what training they received during their careers, both formal and informal. Individual job descriptions for each

enforcement officer were also reviewed to compare theoretical tasks with real day-to-day work.

The project resulted in “Threshold Competencies”—those that must be possessed by a person when applying for a position; “Primary Core Competencies” the minimum standard; and “Secondary Core Competencies” those achieved with experience and training and vary according to each officer category.

Core curriculum

General skills training is conducted regularly, i.e. with regard to sampling techniques and forensic interviewing. Specific elements and requirements of each regulation for which EC is responsible are the focus of other training sessions. Most course materials are prepared by departmental staff, with non-enforcement personnel providing expertise in the development of substantive and often highly technical regulation specific training.

In partnership

EC Enforcement has 60 pollution and 35 wildlife enforcement officers across the country. Effective partnerships with other agencies are essential and add to our number. Customs officers are ECs “eyes and ears” at the border and joint self-taught training programs are currently being developed. EC also works with the Royal Canadian Mounted Police at their training centre in Regina, Saskatchewan. Courses offered and under development include an advanced training package for wildlife officers. Peace officer training will also be provided for all pollution inspectors and investigators whose status is about to change under the revised *Canadian Environmental Protection Act*. International training projects and information sharing take place between EC and the U.S., Mexico, INTERPOL and other G8 member countries



In addition, the enforcement program itself is becoming more involved in the regulation making process, working with experts to ensure that a regulation's policy aims are achievable and that legal requirements are enforceable. The text must be well written and clear to ensure that enforcement field staff can both understand and apply the law.

The future

In 1998, work began on a formal Human Resource Plan—one of the 15 projects which together comprise the Enforcement Action Plan. It will provide a national framework for the hiring, training and advancement of enforcement officers and managers. Work under the Human Resource Plan is currently focusing on updating the knowledge based competencies for enforcement staff, identifying those that should apply to managers, and identifying the most appropriate behavioural competencies for both.

Information: **Chris Currie** (819) 953-3882.

A world of knowledge
Training for Enforcement officers is divided into four knowledge categories: Technical, Legal, Management and Occupational Health & Safety



Janet Fewster

Training for the worst—a member of EC's enforcement staff is scrubbed down after 'being contaminated' during an enforcement training exercise.

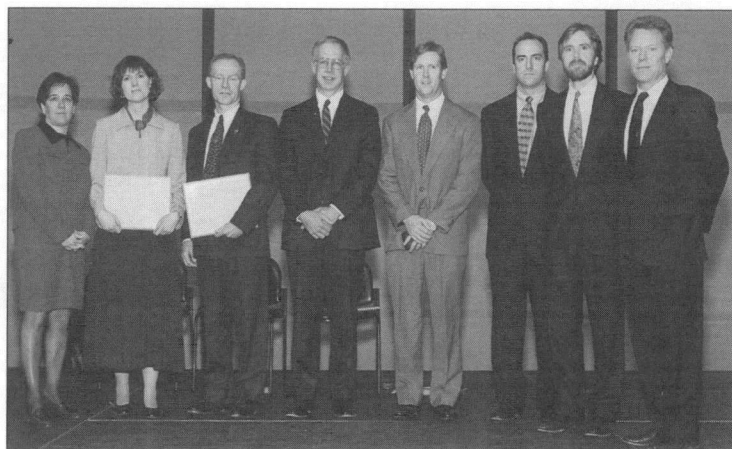
Cross-border stopping

Last December, Investigator Claire Doucette of Atlantic Canada's Enforcement Unit received a bronze medal from the U.S. Environmental Protection Agency for the section's contribution to the U.S./Canadian CFC Smuggling Prosecution Team.

Together, the team carried out ground-breaking work prosecuting New England's first CFC smuggling case. Canadian and U.S. members worked collaboratively to bring a Canadian businessman, his associates and company to justice for smuggling 245 tonnes of CFC-12 (Freon) into the United States from Canada. Those efforts also led to the development of a model for stemming international environmental crime.

In achieving this goal, the Prosecution Team broke joint international prosecution barriers, set new standards for international cooperation, employed novel legal and investigative tools and developed a climate of mutual respect and trust. This case has also continued to foster ongoing environmental enforcement cooperation between the U.S. and Canada.

Information:
Anne-Marie Leger (902) 426-9168.



Miller Studio © 1998

Working to stop the transboundary movement of CFCs: (L-R) Mindy Lubber (EPA), Suzan Bour (Justice Canada), David Aggett (EC), David Collins (Assistant U.S. Attorney), Bruce Pasfield (U.S. Dept. of Justice), John Gauthier, John McNeil and John DeViller (EPA). Absent: Claire Doucette (EC).

News flash—Team Canada

WASHINGTON, D.C.—This April, at an ceremony presided over by U.S. Attorney General Janet Reno, EC team members Claire Doucette (lead investigator for the CFC smuggling case) and Dave Aggett (Atlantic Region Enforcement Manager) were presented with a **Certificate of Commendation** from the U.S. Department of Justice in recognition of their team's accomplishments in the CFC smuggling case.



Enforcement—a cooperative success

ONTARIO REGION—After almost three years of dedicated teamwork between the Toxics Prevention Division and the Emergencies & Enforcement Division (Environmental Protection Branch), EC witnessed an environmental polluter get what they deserve.

The inside scoop

Between May and November 1994, an Ontario packaging company violated several Pulp and Paper Effluent Regulations. The company neglected to comply with reporting requirements and exceeded their authorized limits for depositing deleterious substances (suspended solids and lethal effluent) into Lake Superior.

Case officer Anita Li (Toxics Prevention Division) unearthed the violations while reviewing incidence reports submitted to EC by the company. When the organization remained non-complaint after receiving four Warning Letters, a full scale investigation was launched. Senior Investigator Terry Roberts got the case and spent eight months reviewing files and asking some tough questions.

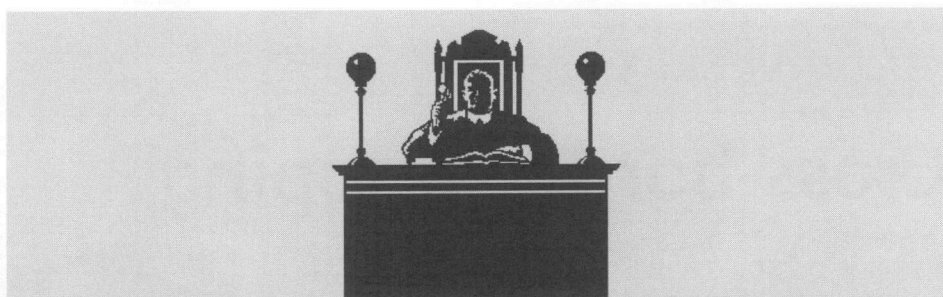
During his in-depth investigation, Terry found that additional violations of the Pulp and Paper Effluent Regulations had occurred at the mill. On April 15, 1996, EC went to the Ontario Provincial Court in Thunder Bay to lay charges against the company under the *Fisheries Act*.

“Terry Roberts and I did most of the initial work in building the case”, Anita Li recalls. “We reviewed the incidence reports, determined what or if any remedial actions had been undertaken by the mill and prepared a chronology of events”. Both Terry and Anita testified at the 18 day trial.



Judith Ann Smith

Ontario Region's Emergencies and Enforcement Division cracked the case. (L-R) Carl Williams, Peter Levedag, Tony DeMarco, Bradley May, Lorraine Young, Rob Bett, Angie Rizzuti, Mike Bell and Toxic Prevention's Anita Li.



“This is the largest sum levied under the *Fisheries Act* against any company in Ontario to date.”

—John Grieve, Sr. Investigator, Ontario Region

Real courtroom drama

Inspector Tony De Marco (Technical and Support Section) took the stand to give expert evidence. He convinced the court that depositing effluent of pH 2.7 was considered a deleterious substance. According to De Marco; “the courtroom testimony wasn't the high energy exchange that you see on TV. First the court established my expert witness status by reviewing my career experience, then defence counsel tested my aptitude for pH interactions and mass balance calculations.” Lawyers

spent five days asking questions about the deleterious substances which the company had been charged with depositing into Lake Superior.

The team's efforts finally paid off on December 16, 1998 when Justice of the Peace Bruce Leaman found the plant guilty and set fines totaling \$210,000. Most of the amount (\$155,000) was directed by court order to environmental scholarships and local pollution abatement projects.

Information:

Peter Levedag (416) 739-5901.



Who you gonna call??

When illegal hazardous wastes show-up dockside without any documentation, who can enforcement and compliance officers call on?

Around the world, containers of hazardous wastes are left behind at dockyards for enforcement and port management officers to deal with the best way they can.

The issue is certainly not a new one for the international enforcement community. While attending an international enforcement and compliance conference in Thailand, Atlantic Region's Enforcement Manager, Dave Aggett made a commitment to address the issue within the next two years.

How to solve the problem

What Dave promised was to undertake the task of creating an *International Directory of Hazardous Waste Contacts*. The Directory would be a list of international contacts who could answer questions related to hazardous wastes leaving their own country and give guidance as to its disposal. The Directory would be developed for working level

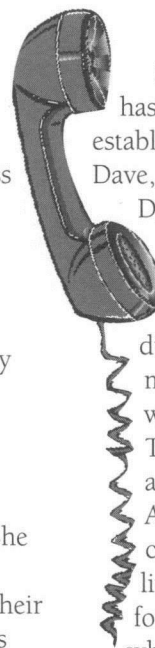
enforcement and compliance officers, to give them another tool to use when dealing with the transport of hazardous wastes across international borders.

When he returned to Atlantic Canada, Dave enlisted the help of Environmental Studies student, Jaclyn Shephard to put the directory together.

All in a day's work

Jaclyn was not daunted by the enormity of the job ahead of her. She contacted conference attendees and asked them to identify contacts in their own jurisdiction. The response was excellent—over 120 participants sent information. She used the Internet as a search tool to refer to previously compiled lists of North American contacts and updated existing lists as she went along.

Perhaps the greatest challenges Jaclyn faced were language barriers and the diversity of enforcement tools used internationally. "I found that we are all working towards the same goal, but with very different tools," says Shephard. Regardless of the language barriers, everyone Jaclyn contacted was pleased to hear that EC was taking on this initiative.



So far, distributing the Directory has been done in stages, using established contact lists. According to Dave, widespread distribution of the Directory is limited due to financial constraints faced at the regional level. "We've been somewhat successful in using low key distribution approaches such as mailing the Directory to officers who attended the conference in Thailand and making the list available on our web site," says Aggett. "That being said, many countries are not as technically linked as we are—it is important for us to work with other countries, where so many of the hazardous wastes end up," he adds.

For those countries that now have the Directory in hand, dealing with incoming hazardous waste has just become a little less confusing. Now, thanks to the Environmental Protection Branch, Atlantic Region, they know who to call.

Information:

Dave Aggett (902) 426-1925.



Enforcement page a success!

Environment Canada Enforcement has a new Home Page on the Green Lane. The site averages ~4,000 user sessions and ~13,000 "page views" per month by users from *outside* the Department. "It's nice to see that people are reading our material" says Dale Kimmitt, Director, Enforcement Branch, in response to hearing that the average user session is approximately 12 minutes long.

Check it out at <http://www.ec.gc.ca/enforce/homepage/english/index/htm>



Enforcement—an international affair

Environmental pollution is non-discriminating—it ignores borders. This can, and does, present special challenges for countries attempting to ensure compliance with environmental laws. Now INTERPOL, in partnership with EC and others, is working to help its member countries work together to protect our global environment.

Environmental violations are now considered to be one of the most serious offences—sometimes even more so than narcotics—according to the International Criminal Police Organization (INTERPOL). Potential profits are huge and potential damage to the environment and to populations of wild animals and plants is significant. In 1992, INTERPOL established a Working Party on Environmental Crime to identify and solve problems that arise during environmental crime investigations. Four years later, an international meeting was set-up, allowing law enforcement officers to annually meet and discuss methods to improve international co-operation on investigations. It also allows them to exchange experience and knowledge in

EC Productions Ltd.

EC's Office of Enforcement made INTERPOL's air pollution enforcement videos a success. Major project contributions were made by EC's Graham Ridley, Regent Lalonde, Daniel Couture, Robert Baxter, Michel Vitou, Darlene Boileau, and Glen Ehler.

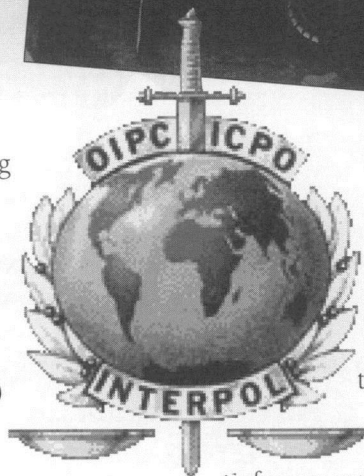


Enforcement officers in their acting debut for the INTERPOL training videos.

three key areas involving illegal transboundary movement—hazardous waste, endangered species and nuclear material.

Responding to the need

The meetings revealed a need for enforcement training in pollution and wildlife investigations. Answering the call were enforcement agencies from



various countries (Environment Canada, the RCMP, the U.S. Environmental Protection Agency, the U.S. Federal Law

Enforcement Training Centre, the German Criminal Police and the Dutch Criminal Police) who worked side by side to create The Environmental Criminal Investigations Training Programme—a 'train the trainer' course. The seminar instructs police and environmental law enforcement officers from over 160 countries to recognize environmental offences and respond appropriately. Participants can then return to their organizations and tailor the material for their colleagues.

The workshop covers four major themes: water pollution; air pollution; hazardous waste; and wildlife crime. It also provides training on environmental criminal investigative techniques, health and safety, principals in adult training and ecology.

Continued on page 16



Things get "rolling" on the set.



In violation

CORNER BROOK, NEWFOUNDLAND—In 1996, a pulp and paper company was the subject of a landmark Canadian Environmental Law case when EC successfully prosecuted the company for violating the Pulp and Paper Effluent Regulations.

Punishment included a \$500,000 fine and a penalty of \$250,000 as partial recovery of profits gained by commission of the offence. The Newfoundland Provincial Court ordered that the company complete construction of its effluent treatment plant within two and a half months of being sentenced. The court order also provided a schedule for further penalties totaling an additional \$500,000 if construction was delayed. By deadline, the mill had completed, installed and tested all of the infrastructure and equipment associated with the new effluent treatment facility and its conveyance systems. However, due to problems with the primary clarifier, the deadline could not be met and the mill projected that an additional five months would be required.

An EC investigation concluded that the company had been diligent in its measures to comply with the court order. The

clarifier had to be replaced—at a cost of \$8,000,000—bringing the total cost of the treatment system to \$32,000,000. Negotiations between EC and the mill produced a schedule that would see the system up and running by April 18, 1997.

Keeping an eye on pollution

EC implemented a bi-weekly inspection plan. An inspector tracked the progress of design, procurement and installation activities. During each visit, activities were observed and progress was reconciled against the implementation schedule. Inspection reports were immediately forwarded to EC in order to thwart potential delays.

The co-operation received from the pulp and paper plant and its contractors allowed the treatment facility to be commissioned slightly ahead of schedule—April 1, 1997. By May 5th, 100% of the mill's effluent was being effectively treated. Case closed.

Information: **Colin Howse** (709) 772-2065.

A snapshot of species identification

Did you know that, under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), protected species may not enter another country without a permit? Ever wonder how Customs officers determine if an exotic animal or plant is actually the one listed in the permit?

Revenue Canada Customs agents rely on Environment Canada inspectors for help in identifying plants and animals coming into Canada from the U.S. and around the world. As species identification requires a specialized knowledge, Customs officials previously had to ship a specimen to a lab or museum for analysis. Sometimes CITES permits must even be sent to Geneva, Switzerland, for authentication. It was a costly and time-consuming procedure.

During these delays, live specimens had to be well cared for, fed, and given any necessary veterinary treatment.



Watch the birdie!

To cut down on time and costs, EC inspectors introduced digital cameras in the workplace. Questionable items and permits can now simply be photographed and e-mailed to one or several specialists, garnering results in as little as a few minutes. The cameras cost between \$800 and \$1,200—significantly less than shipping specimens across the country. They also allow for the creation of a central database of photographs and experts' comments which could be put on the Internet for use by Customs officers.

Information:
Yvan Lafleur (819) 953-4383.

Consumer Reports

If you're thinking of buying a digital camera, here's some features to consider:

Photo Storage

- Standard 1.44 MB floppy disk (space is limited but downloading is simple) versus
- 2 MB and 4 MB memory cards (connection cable needed for downloading).

Batteries

- Rechargeable lithium versus
- Standard batteries (extra batteries must always be on hand).

Resolution

- 350 K pixels (hard to get good photos of permit forms) versus
- 850 K pixels and 1,400K pixels (much sharper photos).

Training on lighting techniques is useful.

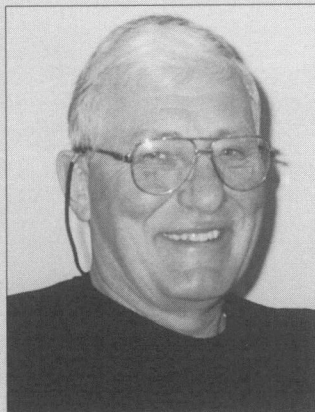


EC gets tough

The one thing it isn't, is easy.

Environment Canada's investigators have a job that's demanding, highly technical and sometimes extremely controversial. And one of the most important things they do is to enforce compliance.

"Most companies comply with the law voluntarily", says Enforcement's Peter Levedag, Head of Investigations, Ontario Region. "A study by our west coast group showed a voluntary compliance rate of about 65%. However, those compliance rates jump to 80 or 95% with enforcement."



Peter Levedag

Mary Salmena

A day in the life

In the Ontario Region, tips on breaches of the law are assigned to one of five investigators. This is Canada's largest group of investigators, largely due to the high concentration of industry (40-50% of Canada's industries) and federally regulated activities based in Ontario.

Once a file is assigned, the investigator is on it until it's concluded. At the outset, investigators often collect documentary evidence and take statements, photos and samples. Occasionally they even conduct surveillance or execute search warrants to get their jobs done.

After collecting and analyzing the evidence, investigators make recommendations on how a file should be handled with regard to existing compliance policies. "Few files end up in court", says Peter, "most of them are concluded at the investigative stage or referred to another agency". And when they do go to court, it may be against the top law firms in the country. The investigator assists the prosecutor throughout the case and, where a conviction results, ensures that fines are collected and court orders adhered to.

Creative sentencing

"Investigation and prosecution are not just about getting a conviction, it's about getting compliance through deterrence", says Peter. But where convictions have been registered against polluters, EC favours "creative sentencing", whereby penalties may be in the form of court orders which can be directed at pollution prevention, remediation or education thereby directly benefiting the environment. "Although corporate monetary penalties are a good deterrent, the best deterrent remains the prosecution of responsible individuals".

Interesting question...

Can government departments be charged with environmental offences by private citizens? "Of course they can", says Peter. "The province of Ontario was recently charged for pollution from an old mine site". Those charges are the result of actions by the Sierra Legal Defense Fund and the Environmental Bureau of Investigation, two environmental groups in the province.

So if you're thinking about breaking an environmental law, think again. EC Ontario's 'long arm of the law' is always ready for action.

Information: **Peter Levedag** (416) 739-5901.

Enforcement— an international affair

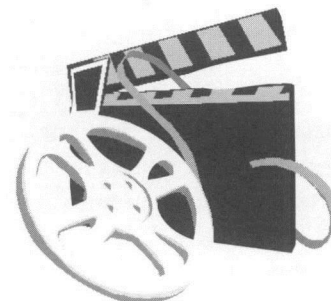
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Caught on tape

In addition to written course materials, companion videos are currently being produced. Canada's excellent record in air pollution enforcement has brought filming of these videos to Ontario, where fictional demonstrations of trans-border violations and waste material burning have been taped. When completed, the videos will be translated into at least four languages and distributed around the world. Areas such as Prescott and Cornwall were chosen to film the scenes due to their close proximity to the border. "Customs officials are an important part of our team—they're our eyes and ears at the border", says Robert Baxter, EC environmental investigations specialist. "Co-operation and communication has to exist between agencies. Environmental violations can affect thousands of people—they're a ticking time bomb."

Information:

Glen Ehler (819) 994-1278.





To identify is to protect

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) regulates trade in animal and plant species based on how at risk they are. But, how can you tell the difference between, say, one species of hard coral, and one of its more than 200 cousins? At EC, Richard Charette and his team have developed guidebooks so that species at risk can be identified quickly and correctly.

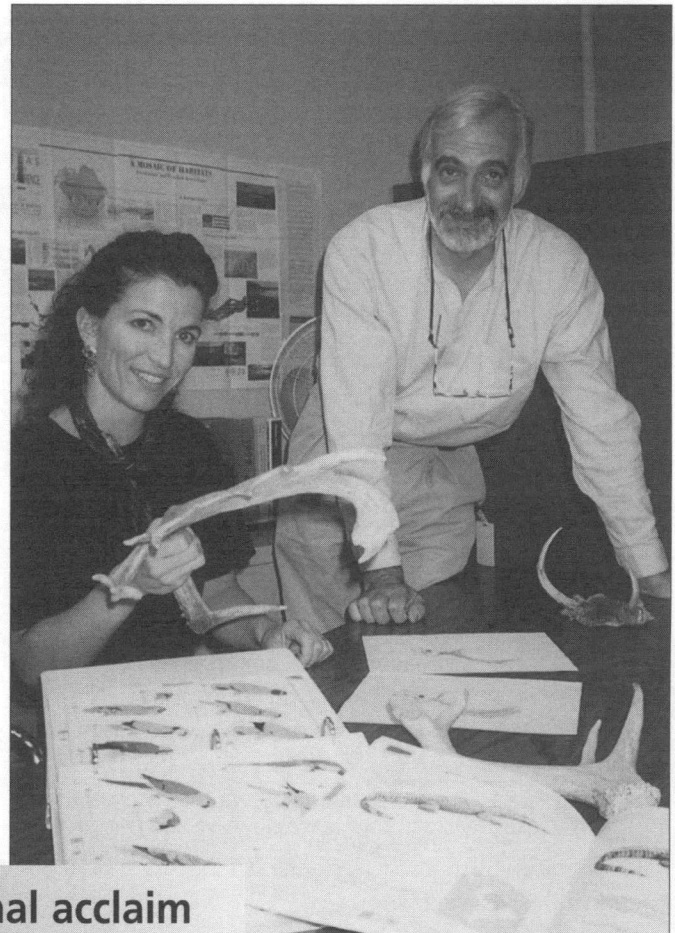
Simple-to-use guides

One of the most important aspects of the guides is that they're so easy to use. Each guide has identification keys that can be learned in about an hour. For example, when using the CITES bird guide, you needn't know anything about birds—just how to distinguish between red, yellow, and blue. People such as enforcement officers can make up to 80% of their identifications using this method, referring a mere 20% for expert evaluation.

"If we create identification keys that have Customs officers tearing out their hair, nothing is gained in terms of preservation of species", Richard explains. "They have to work with tools that are visual and easy to use. For hunting trophies, we worked on a key for silhouettes, one for antlers and horns and one for skulls. The animals can be identified using these three keys."

Elsa Gagnon is currently working on the mammal guide. "All the animals with horns and antlers are prized as trophies. I look at what species are protected by CITES and also, for those that are not protected, the ones that have horns or antlers that could be a source of confusion. And there are a lot of them! It's real detective work," she says.

Guide production is done by the Government of Canada, The World Customs Organization handles promotion and the CITES Secretariat in Geneva presents them at its training sessions around the world. "We don't want our guides sitting on shelves", says Richard. "We are always looking for ways to make the greatest impact possible. We can give people what they need to create their own guides—electronic copies were sent to China, so all they had to do was type in the Mandarin around the drawings."



Rhonda Arsenault

International acclaim

The CITES guidebooks have been capturing attention around the world. In fact, Swiss journalist Robert Guégan visited EC last fall specifically to interview the CITES specialists working on this program. His article appeared in the January 1999 issue of the European magazine *Femina*.

Elsa Gagnon and Richard Charette are hard at work on the CITES identification guides.

What is that?

Guides have now been published on birds, crocodiles, and tortoises. They will soon be followed by others on butterflies, sturgeons, mammals, snakes, cacti, orchids, tropical trees...and the list goes on.

The bird and crocodile volumes of the new guides will soon be made available on the Green Lane at <http://www.ec.gc.ca/enforce/homepage/wildlife/english/cites.htm>.

Information:

Richard Charette (819) 953-4811 or
Elsa Gagnon (819) 994-1117.



Enforcement in the North— facing the challenge

When Neil Scott goes to work, he's never certain what he'll be doing that day.

Neil is Environment Canada's Environmental Enforcement Coordinator for the NWT/Nunavut regions. On any given day, he could be testifying in court against a polluter, wading through muskeg to bag a poacher, or even helping an art dealer understand the rules for exporting Inuit carvings.

The only thing he won't be doing is looking for something to do. As one of three enforcement officers in Canada handling the dual responsibilities of wildlife and pollution enforcement, there is never a shortage of work.

"I think that's what I enjoy most about this job", Neil says. "I'm never bored."

Well, not quite never. "I really hate paperwork. It's the most awful thing I can imagine." He prefers standing on a highway, running a check stop with his Territorial counterparts. Or helping Customs to know whether an item can be legally imported under the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA) regulations. Or travelling to the military base at Alert to assist National Defence with their environmental clean-up plan.

The most taxing part of Neil's job may well be the extensive travel required. "If one of my investigations goes to court in Iqaluit, and the person pleads not guilty, I have to be

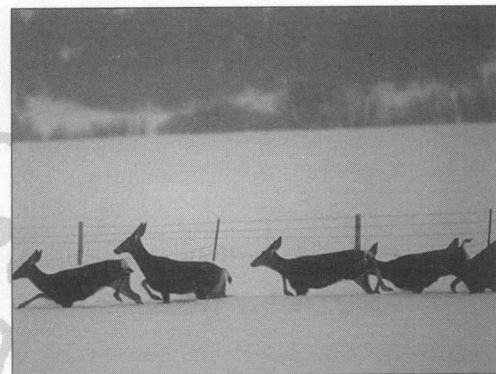
there." That's a minimum three day trip, of which two days are spent travelling. "And when I arrive, I might find that the plea has been changed to guilty, and I'm no longer needed. It's all part of the job, but it can be frustrating."

Neil grew up wanting to be a Game Warden. He spent two years training at the Saskatchewan Institute of Applied Science & Technology in the Renewable Resource Management program. After 18 years working as a wildlife enforcement officer in Alberta and Manitoba, he knew he was ready for a new challenge.

"When I told my family I had landed this job, and that it was in Yellowknife, their only response was 'Great—when do we go?' And we haven't regretted it since." According to Neil, "Yellowknife is one of the best places I've worked."

After seven years as one of the North's busiest peace officers, Neil isn't yet ready to move on. "I like what I do, and I know that I'm able to make a difference. That's all anybody should expect in life, I guess."

Information: **Earl Blacklock** (867) 669-4703.



A "fine" day at the office

The environmental benefits of catching polluters has just gotten better in the Atlantic Region. When a company was fined for importing ozone-depleting substances into Atlantic Canada, an Atlantic Canada Court ordered the company to pay \$15,000 to EC's Environmental Damages Fund.

"This is the first time a court in this region has used the Fund," said Dave Aggett, Manager of EC's

Enforcement Division in the Atlantic region.

EC Investigator Gary Greene, returned from the courthouse with the cheque in hand. "I walked into our Regional Director's office and promptly presented the cheque to him," says Greene. The Environmental Damages Fund, which is administered by Environment Canada, will be applied to environmental assessment and restoration activities.

The *Ozone-depleting Substances Products Regulations* restrict the sale, the offering for sale and the importation of ozone-depleting products. Enforcing these regulations is part of Canada's contribution and treaty obligations under the Montreal Protocol, which aims to remove ozone-depleting substances from the atmosphere.

Information:
David Aggett (902) 426-1925.



Analyzing the future

Household items such as aerosol spray, dust removers, and other pressurized products that contained substances such as chlorofluorocarbons (CFCs) were once part of our daily lives. However, today these products are known to deplete the earth's protective ozone layer. Even polychlorinated biphenyls (PCBs), which were used extensively in transformers and hydraulic capacitors, have extremely toxic effects. We realize that these widely-used substances are dangerous, so how are we to deal with them?

Cleaning up old problems

Canadian Environmental Protection Act (CEPA) Regulations are created to address these new arising issues. Ensuring and enforcing compliance is taken up by EC's regional offices, with assistance from the Analysis and Air Quality Division (AAQD) of the Environmental Technology Centre (ETC) in Gloucester, Ontario. The AAQD provides expertise in identifying and measuring toxic substances and continually works to develop new or improved analytical methods to meet specific regulatory demands.

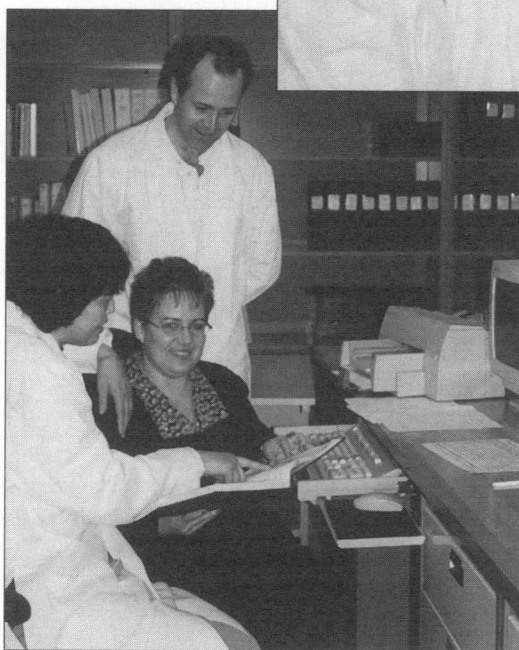
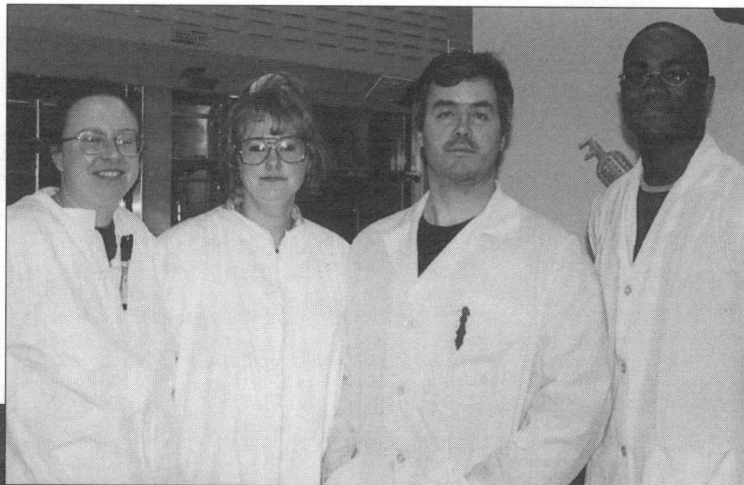
AAQD's analytical team can provide high quality data in quick turnaround times while still ensuring the data's validity and defensibility when presented as court evidence.

AAQD takes the case

Over the last two years, AAQD has assisted in prosecuting several CEPA offences:

- analyzed switch and contact cleaner aerosol cans for CFC-113 during an

ETC's sample preparation team—(L-R) Peggy Dunlop, Aline Dombroskie, Mike Lister and John Clotress.



(L-R) Annie Jin, Monique Lanoy and Blair Sheridan... better known as the ETC GC-MS Analytic team. (Absent: Viera Balgava)

Ontario Region investigation. Positive results led the offender to plead guilty to illegally importing a product containing a restricted ozone-depleting substance. The fine: \$25,000.

- provided analytical support to the Atlantic Region during an investigation of the sale and import of a product containing CFC. An Atlantic Canada-based company plead guilty to the offence. The fine: \$20,000.

- conducted analyses for another Atlantic Region case involving CEPA's ozone-depleting substance regulations for the sale of illegal products in Atlantic retail outlets. The fine: \$9,000.

Information:

Mylaine Tardif (613) 990-8565.

The innovators...

AAQD has developed new in-house tools to meet the increasing demands of the CEPA regulations. Some of these innovations include:

- a reference method for the analysis of polychlorinated biphenyls (PCBs);
- determination of chlorofluorocarbons (CFCs) in aerosols and pressurized cans;
- a reference method for the determination of polychlorinated dibenzo-para-dioxin (PCDDs) and polychlorinated dibenzofurans (PCDFs) in pulp and paper mill effluents; and
- a reference method to analyze for vinyl chloride monomer in VCM plants.



Profile of a pollution inspector

The job of an EC pollution inspector isn't easy. Pollution inspectors enforce the *Canadian Environmental Protection Act* (CEPA), the pollution prevention provisions of the *Fisheries Act* and the regulations under each.

Inspectors are the front-line enforcement staff for environmental protection, holding designations under CEPA, the *Fisheries Act* and in some cases the *Transportation of Dangerous Goods Act*. Inspectors verify compliance with statutes, regulations, Ministerial orders, court orders, Inspector's directives or permits issued under CEPA or the *Fisheries Act*. Compliance is verified by checking regulatees records, inspecting sites, analyzing records, and conducting sample analysis.

Occupational hazards

The dangers of this job cannot be underestimated. Inspecting industrial sites, chemical manufacturing plants, PCB storage facilities and sampling potentially toxic substances can be dangerous. Physical hazards such as heavy mobile equipment or high speed machinery are also potential hazards. To reduce the risk of injury, personal



Janet Fewster

Enforcement isn't easy...in fact, it can be down right dangerous.

protection equipment is provided and health and safety training is mandatory.

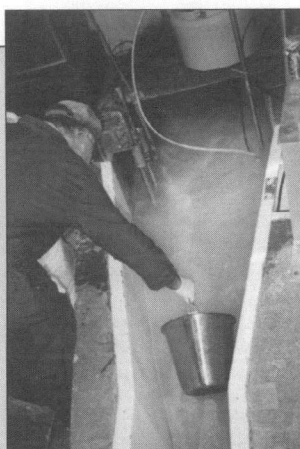
Getting the job done

How do inspectors keep track of all of the legislation, their authorities under those Acts, remember their sampling techniques, safety procedures AND keep their wits about themselves when conducting an inspection? There isn't an easy answer—but being multi-skilled, talented and professional is a definite bonus.

Being a pollution inspector requires technical and scientific knowledge, and most importantly, the right personal qualifications. Inspectors are so proficient at their job they make it appear easy. But don't be fooled—without a doubt, the job of a pollution inspector is multi-faceted and demanding, but easy? Not so.

—April White

Enforcement Management Division



On the edge...taking effluent samples can be demanding work.

What it takes

Do you have what it takes to be a pollution inspector? Some of the qualities you'll need are:

- technical and scientific knowledge;
- patience and perseverance;
- a gigabyte of memory;
- elephant-like skin (thick);
- lightening-speed reaction time;
- the diplomacy skills of a United Nations negotiator;
- the sleuthing skills of Kojak;
- the organization skills of the best Time Manager; and
- the ability to operate the sampling equipment while simultaneously labeling the samples and documenting every move during the process, all with just two hands!

Nationally, during the 97/98 fiscal year, Enforcement's pollution inspectors performed about 2,200 site inspections and 2,600 monthly report verifications.



Inspections—a day in the life

Here's a snapshot of some of the day-to-day activities conducted by EC's enforcement officers at a **fictional** inspection in Anytown, Ontario.

At home...

Before driving to Anytown's Pulp and Paper Inc., a mill 800 km from the Toronto regional office, officers must assemble the appropriate files, familiarize themselves with the technical and administrative workings of the plant and decide whether to take specialized sampling equipment.

...and away

When the destination is finally reached, plant management must be contacted so that the inspectors can gain entry to the facility, explain the purpose of their visit and request all the documentation that must be verified. Then the company's paper and electronic records are checked, staff is interviewed, effluent samples are taken and flows are measured. Inspectors also check the accuracy of the flow measurement equipment both inside and outside the plant.

If and when an inspector finds a violation, the response is determined by the nature of the offence—how much harm could it cause, and what is the company's compliance history? For something like a PCB storage container found without the appropriate label as required under the *Canadian Environmental Protection Act* (CEPA) PCB Storage Regulations, a warning might be issued.



Janet Fewster

Donning protective equipment for another day 'at the office'.

For a more serious violation, such as the release of extremely toxic substances in contravention of CEPA or the *Fisheries Act*, a Direction by Inspectors may be issued to stop or prevent the release and a full investigation would be initiated.

And home again

Usually, the on-site inspection takes several days (includes travel, sampling, verification and interview time). When the inspectors return to the regional office they have to send collected samples for analysis, update the files, study the sample analysis reports, and calculate the effluent loadings. If a violation is found it's up to the inspector to decide what enforcement action to take.

From start to finish, the inspection process takes about two weeks—the work in Anytown is finished. Now it's on to another plant in another town—when you're protecting the health and safety of Canadians and their environment, the job never stops.

Information:
George Pilpe
(819) 997-4712.

What's the difference?

Inspectors—
conduct inspections to verify compliance with the federal legislation.

Investigators—
investigate non-compliance.

Deadlines

Fall

June 18, 1999

Winter

October 1, 1999

Spring

December 20, 1999

Give us a call:

Janet Fewster (819) 997-2037
Rhonda Arsenault (819) 997-1089
Céline Proulx (819) 994-6037

Fax: (819) 953-8279

e-mail: Talkvert@ec.gc.ca

Intranet: <http://infolane.ec.gc.ca/~infolane/LTG/index.htm>





The case of the leaking fuel storage tanks

The year is 1996. A service station, located half on an Indian Reserve and half on provincial lands, reports spills from poorly installed fuel tanks. The station received its fuel from a major oil company. The same company also supplied and installed the tanks.

Since EC has no regulations dealing with storage tank performance and Saskatchewan Environment felt that they could not apply their regulations on federal lands, it fell to Indian and Northern Affairs Canada (INAC) to deal with the issue.



Thanks to EC, fuel storage tanks at this Saskatchewan gas station no longer pose an environmental threat.

Hal Sommerstad

An assessment conducted for the oil company found contamination on the site and minor remedial action was undertaken. In August 1997, initial work began on the installation of a sewage line through the contaminated area. However, a small explosion and fire occurred when an excavator ignited hydrocarbon fumes trapped in the soil and all work ceased. As a result, INAC had the site assessed.

Assessment Results

Extensive soil contamination was found—there was a possibility that hydrocarbons could be reaching the Montreal River located approximately 50 meters away. INAC tried to have the oil company conduct site remediation. The attempt was unsuccessful.

EC Investigates

Since a discharge of hydrocarbons into the nearby river would be a *Fisheries Act* violation, INAC requested that EC conduct an investigation. Regina investigators Rod Slatnik and Hal Sommerstad collected documents and statements from INAC and Saskatchewan Environment. They then visited the site and, with the assistance of the local provincial enforcement officer, collected information from local residents and the owner of the service station.

Some contamination was found around the Montreal River, but fortunately there was only a small amount reaching the river. Shortly after the sampling, the oil company posted a \$300,000 bond to pay site clean-up. Over the summer of 1998 the site was excavated and the soil was replaced with clean fill. All tanks were replaced. Some contamination remains under the building, but monitoring/recovery wells will be installed.

The case, a *Fisheries Act* violation by the oil company and the service station, was recently concluded with the minimum official response to a violation—a Warning Letter. Prosecution was not undertaken because of the minimal environmental damage and the company's decision to do site remediation.

In the end, the actions by all those involved has made our environment a safer place.

Information: **Hal Sommerstad** (306) 780-6001.

Regulation— it works!

The pulp and paper (p&p) industry constitutes a large part of Quebec's economy—40% of Canada's mills are located in Quebec. In 1996, Quebec's pulp mills produced more than 33% of the country's pulp and paper, reaching an export value greater than seven billion dollars.

Until recently, the situation was much less satisfying for the environment. Despite a modernization program and the installation of primary treatment systems in the early 1980s, the p&p industry continued to discharge significant amounts of deleterious substances into Quebec's waterways.

Toughening-up

In 1992, EC adopted three new regulations and committed the resources needed to fulfill federal government obligations. These regulations were backed up by an on-site environmental effects monitoring mechanism (EEM) which assesses how effectively the regulations are protecting fish and their habitat.

However, for legislation to be effective, it must be enforced and compliance must be checked. In Quebec, EC brought the p&p industry into compliance with the new regulations by:

- organizing conferences and meetings with company managers;
- issuing public notices;



On the right track

Environment Canada's Enforcement Branch realized the need for a national data tracking system so staff across the country could share information in a secure, timely, easy and efficient way. Enforcement officials required a mechanism to communicate on their activities (incidents and status of inspections/investigations) on a daily basis. Prior to the mid-1990s, there was no consistent system for tracking and managing enforcement information. Though there was a tracking system available, many officers chose not to use the software because it was far from user-friendly. And so, NEMISIS was born.

NEMISIS

The National Enforcement Management Information System and Intelligence System (NEMISIS) was unveiled in June 1997. It's used primarily to track and manage national enforcement activities for the environmental and wildlife legislation enforced by EC officers.

Making life easier

This new system is an important tool that enhances the efficiency and performance of enforcement officers. They can now perform their duties with complete assurance that they have the necessary information when undertaking an enforcement activity.



NEMISIS 2.0

Regional staff no longer have to track and generate their own statistics—that's all handled automatically by the NEMISIS system, thus reducing the burden for regional and HQ staff and ensuring statistical accuracy.

NEMISIS allows managers to supervise the enforcement activities done by staff and obtain accurate and timely statistical and detailed reports. As well, the public will be kept informed of pertinent NEMISIS information through a web site currently under construction.

Drawing linkages

But more than just sharing information, the system also allows officers to obtain intelligence by linking information within and from the different activities.

A success in the making

NEMISIS has been a great success due largely to the efforts and commitment of the user representatives and managers in each region who addressed the various concerns and needs. The co-operative production that went into NEMISIS' creation ensures that it has been developed in a way that meets the needs of both officers and managers.

Information: **Katherine Blais** (819) 953-3833.

- negotiating project timetables;
- consulting with the Department of Fisheries and Oceans Canada and other interested groups; and
- monitoring the progress on the construction of secondary treatment systems.

A plan for electronic management and transmission of plants' auto-surveillance data was also developed. On the other hand, when possible infractions were noted, Warning Letters were sent to the plants in question. Lastly, close to 47 plans and final EEM study reports were evaluated.

The results are in...

It was an enormous job, but it was worth it. In 1996, the Quebec pulp and paper sector achieved an overall

compliance rate of over 98% for biochemical oxygen demand and suspended solids. In that same year, the average emission of biochemical oxygen and suspended solids for Quebec was around 2.5 kg/ton, which is far below allowable limits. Available 1998 data show that, except for one plant that has still to eliminate the acute lethality of its effluents, 96% of monthly tests measuring acute lethality showed compliance with federal regulations. Also, regulated dioxins and furans in effluents have been eliminated at the source.

EC's efforts have produced excellent results. Nevertheless, Environmental Protection Branch employees will remain ever vigilant in the fight against pollution!

Information: **Richard Dalcourt** (514) 283-9948.

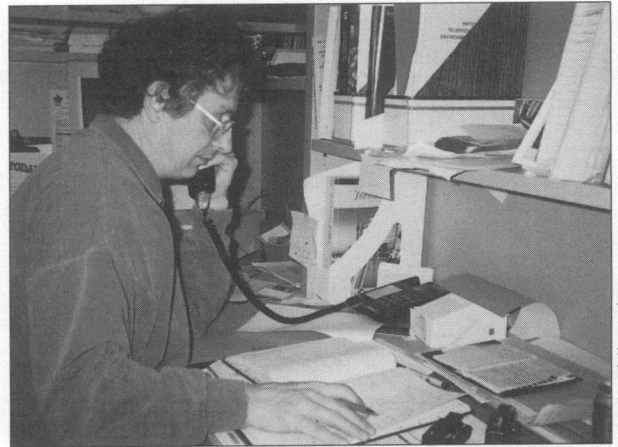


Law & Order

In the Ontario Region, six investigators and nine inspectors work hard to ensure that individuals, companies and federal departments are complying with the *Canadian Environmental Protection Act* and the Pollution Prevention Provisions of the *Fisheries Act*. Infractions happen, but determining the best way to handle a violation is often a complex matter, requiring the advice of the Department of Justice, other divisions of EC and provincial agencies. In 1998/99, only two investigations of the 23 initiated resulted in prosecution—others were handled outside of the court system. No matter what route enforcement officers take however, the process must be applied fairly, predictably and be consistent with departmental policy.

Information:

Dave Pascoe (416) 739-5897.



Laurie Thibeault

Paul Madore—ensuring that Ontario's industries are in compliance.

Enforcement by the numbers

During 1998/99 Ontario Region staff conducted 923 inspections under CEPA (183 violations) and 478 inspections (180 violations) under the *Fisheries Act*. Prosecutions resulted in fines and penalties amounting to \$320,000. For more detailed enforcement statistics, visit: <http://www.cciw.ca/green-lane/epb/eed/>

Ontario Region's enforcement goals

- To minimize environmental damage while achieving compliance with the Acts and Regulations in the shortest possible time.
- To prevent further violations and deter others from violating the law.

What could happen...

Each investigation is unique. If a company or individual is in violation of a regulation or an Act, there are a number of possible responses available, such as:

- Warnings;
- Directions by Inspectors;
- Orders by the Minister;
- Injunctions;
- Prosecution;
- Penalties and Court Orders upon Conviction; and
- Civil Suit by the Crown to Recover Costs.

Enforcing the law—EC on duty 24 hours a

In the Quebec Region, law enforcement is carried out by a small number of individuals working in four areas: pollution inspection, pollution surveys, wildlife surveys and environmental emergencies. But no matter the section, the goal is the always same: to protect the environment and human health by ensuring compliance with the laws administered by the Department.

Quick response events can happen at any time. From accidental spills and illegal importation of waste or toxic substances or even to protecting endangered species, EC enforcement officers are on call 24 hours a day.

A demanding job

In 1998, enforcement officers in the Quebec region responded to more than 150 calls. Most were from the Customs division of Revenue Canada which plays an essential role in ensuring compliance with federal environmental legislation by monitoring the entry of regulated substances into Canada.

However, EC officers not only watch the Canadian border, they also protect the environment from the serious damage that could be caused by toxic spills. Responding to about 900 calls a year, emergency officers are often the first to arrive on the scene of an incident. They offer their expertise and coordinate various Departmental services. They must



Poaching ring cracked

The Cap Tourmente National Wildlife Area has always been an important place for the management and control of the global Snow Goose population. This jewel of the wildlife world owes its international reputation in large part to its migrations and the unforgettable spectacle provided each year by this unique species.

The Wildlife Area is a harvesting zone for part of the Snow Goose population. Each year EC holds a controlled hunt to maintain manageable populations. During the 1998 hunting season, Cap Tourmente National Wildlife Area hunters gathered 14.5% of birds harvested in the Province of Quebec and 10.5% of all geese harvested in Canada and the United States.

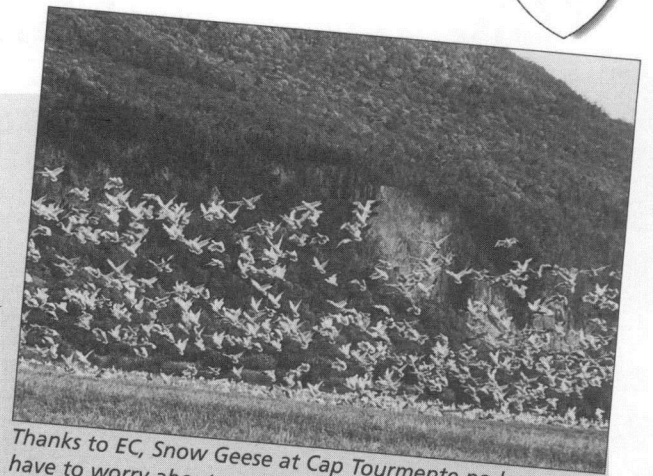
Illegal hunting

Over the past few years, outfitters and hunters noticed that the geese in the Cap Tourmente National Wildlife Area were behaving nervously, making hunting more difficult in the morning and negatively affecting total harvest. After two years of lengthy investigations, provincial officers, with close co-operation from EC, were able to crack a major poaching ring that was

The good of the many

CWS's Cap Tourmente National Wildlife Area is an important wetland located on the north shore of the St. Lawrence, 50 km east of Quebec City. Since 1972, controlled Snow Goose hunts have been held here as a method of maintaining a sustainable flock. Even with controlled hunts, scientists agree that this species is overpopulated. They worry that the Snow Goose could gradually destroy feeding sites along the St. Lawrence River.

The hunt takes place in well-defined areas which are closed to the public. Open only to residents of Canada, hunters are chosen by lottery. Resting areas are preserved so that the geese may feed and be publicly observed in peace.



Thanks to EC, Snow Geese at Cap Tourmente no longer have to worry about an illegal night-time poaching ring.

operating on the site. Poachers hunted at night and sold the geese they killed. Approximately 20 individuals have since been charged on close to 200 counts, facing a total of more than \$100,000 in fines. The 12 firearms used in the violations were confiscated by the Provincial Crown.

National Wildlife Areas are protected zones. However, as poaching rings use

increasingly sophisticated methods of operation, simple preventative patrols are not effective protection. As we move into the next Millennium, measures to protect our Canadian wildlife will surely enter a new era of state-of-the-art enforcement operations.

Information:

Stéphane Turgeon (418) 827-3776.

day

also analyze the situation to determine who is responsible for the act of non-compliance.

EC enforcement officers responsible for wildlife compliance find themselves on-the-job both evenings and weekends. These efforts help protect endangered species.

Teamwork

When responding to environmental emergencies, officers are experienced and equipped to take samples of toxic substances that are potentially hazardous. Inspection officers are trained to determine responsibility for infringement of the Acts. Duty officers must also locate experts from both the

federal and provincial governments and private enterprise.

Together, these individuals make up a well-rounded expert team, ready and able to take action in any enforcement situation.

Law enforcement is one of the government's chief priorities and EC takes its power to law enforcement and compliance very seriously.

Information: **Lyne Potvin** (514) 283-7220.

A single number

No matter the situation or infringement, a Quebec Region enforcement officer can be reached 24 hours a day at (514) 283-2333.



Wild for WAPPRIITA

From elephants to iguanas, parrots to baby tortoises, Ontario sees them all. Along with the thousands of passengers arriving daily at Toronto's Pearson International Airport, so too come plants and animals. The volume of items coming into and going out of Canadian ports is significant—passenger, transborder and commercial shipments in the Ontario Region exceed 20 million annually.

Since the proclamation of the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA) in May 1996, the Ontario Region has had several interesting and educational experiences enforcing it. The first successful prosecution under WAPPRIITA was heard in an Ontario court and involved an individual charged for illegally importing four elephant tusks he had obtained in Zaire, Africa. African and Asian elephants have been recognized internationally as animals in danger of extinction since 1981. The accused, who was not a Canadian citizen, was sentenced to 23 days in jail and was deported.

Critter conservation

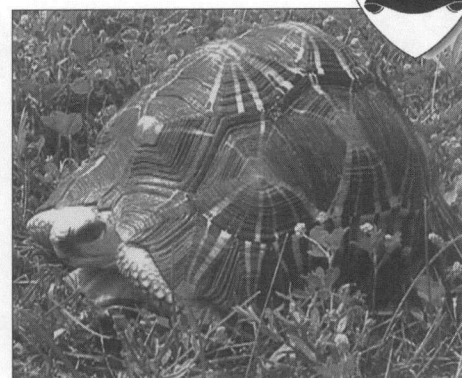
From the largest land mammals to the smallest species, the greed of the wildlife trade knows no limitations. In November 1996, Canadian Wildlife Service (CWS) officers were called to investigate the importation of a carry-on suitcase containing 232 baby Indian Star tortoises. These reptiles can garner up to \$800 each in the pet trade market. The tortoises had suffered an arduous journey from their native India, through Hong Kong and Singapore, to arrive in Canada for distribution in North American markets. After being seized, the

tortoises received intensive care from Toronto Zoo staff and in the end, 105 of the animals have been established in captive breeding programs throughout North America. The importer, a British national, was fined \$10,000.

Recently, officers charged a Tecumseh area man with illegal possession of rare Madagascar radiated tortoises and other protected wildlife species. The animals were discovered as part of an ongoing investigation into the international movement of reptiles for the pet trade. The man was fined \$3,000 for violating section 155 of the *Customs Act* and ownership of the tortoises was transferred to Environment Canada.

Prepare to pay

Fines can reach up to \$150,000 for individuals and \$300,000 for corporations, with a possibility of imprisonment for up to five years per offence. Legislation such as WAPPRIITA has been an important step in increasing the effectiveness of Canada's efforts to protect the world's



Carolyn Duffield

This radiated tortoise, usually found in Madagascar, almost became a North American pet. It was seized by EC during an investigation into illegally imported reptiles.

endangered and threatened animals and plants. Ontario Region enforcement staff continue to do their part in promoting and monitoring compliance to the Convention on International Trade in Endangered Species (CITES) permit requirements. With so many of the world's wildlife populations threatened by international commercial demand, enforcement of WAPPRIITA and the prosecution of violators remains a departmental priority.

Information:

Gerry Brunet (519) 826-2106 or
Pierre Lacroix (519) 826-2098.



A bird in the hand... is worth a criminal record

While Canada's indigenous birds of prey are exported extensively around the world for falconry, the birds commonly seen in trade for pets belong to the parrot family. One case involved the smuggling of a Cuban amazon parrot in the coat pocket of a Canadian traveller returning home from vacation. Native to the Bahamas, the Cayman Islands and Cuba, the species has suffered drastic population declines due to sport shooting, habitat loss and trapping for the pet trade. Wild populations are believed to be around 200 birds. During an interview with CWS investigators, the importer explained that he had purchased the bird for \$500 Canadian while vacationing in Cuba and had drugged and bound the bird for the return flight. He had not considered that the bird could have been endangered. The importer was fined \$750 and the bird was taken into EC custody. The parrot is presently awaiting return to Cuba where it will join a captive breeding program or be released back into the wild.

Stolen from its natural environment, this rare Cuban amazon parrot anxiously awaits its return 'flight' to warmer climates.



'Guiding' the movement of hazardous waste

How do you go about transporting hazardous wastes across borders? The answer to this and other hazardous waste questions can be found in Atlantic Region's new, concise and easy-to-follow reference guide.

The exporting of hazardous waste has become a lucrative business. Industrialized nations often have a "not in my backyard" attitude—unconsciously supporting the export of locally generated hazardous waste to developing countries. Adding to the issue is the fact that there is not an internationally recognized definition of hazardous waste, or a common approach to hazardous waste management, compliance and enforcement.

The *Transboundary Movement of Hazardous Waste Reference Guide* is designed to help environmental enforcement officers and border officials deal with transporting hazardous wastes between countries. It also helps them identify hazardous wastes as listed by the *Canadian Environment Protection Act (CEPA)* and gives officers practical advice on how to deal with hazardous waste products once they come in contact with them. For instance, the reference guide clearly identifies measures that border and Customs officials can take to detain a shipment for compliance verification by EC's CEPA inspectors. It also lists contact names, telephone and fax numbers for departmental Enforcement Units across the country.

This is the first draft of this document. Dave Aggett, Enforcement Manager, would eventually like to see health and safety standards included in a future report. "Even the most industrialized nations have a problem with health and safety," adds Aggett. "At times, officers do not know how to deal with a hazardous substance properly and that can be very dangerous."



"The goal of the guide is to create awareness among environmental and enforcement officials on the issues regarding hazardous wastes, despite inconsistencies in international regulations and enforcement."

**—Dave Aggett,
Enforcement Manager**

Dave and his team are very pleased with the results of this first effort. So far, it has had limited distribution but the plan is to find a way to get it to all the border officials and enforcement officers who would really benefit from it.

Information: **Dave Aggett** (902) 426-1925.

Saving Canada's wildlife

Canadians, wherever they reside, treasure their country's rich biological heritage. They place a high value on ensuring that future generations will enjoy the same benefit. And they realize that many of our biological resources, such as wetlands and migratory wildlife, are of global importance.

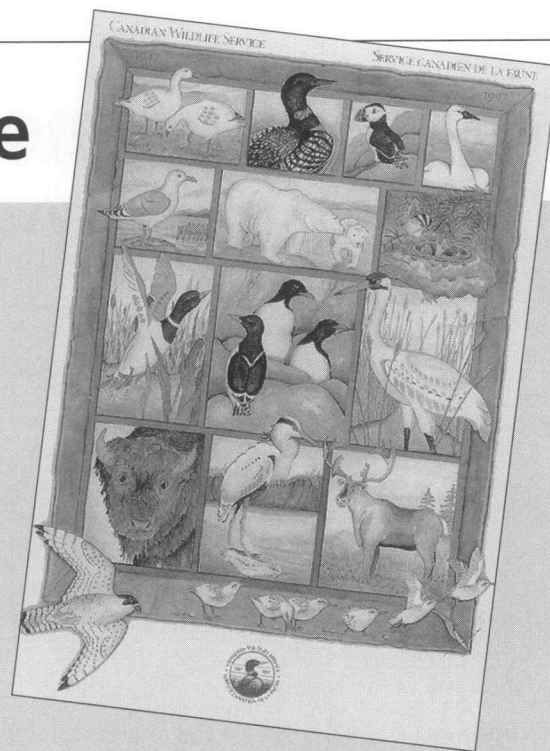
Conserving Wildlife Diversity, a newly released report, indicates that Canada's conservation achievements have been significant. Many wildlife protection areas have been created and current wildlife management programs continue to sustain many species, including larger vertebrates.

Local stewardship essential

Conserving Wildlife Diversity explains that much remains to be done for the conservation of species and habitats. The report stresses that wildlife diversity cannot depend exclusively on protected areas, but needs to be conserved across the working landscapes and in the urban areas of Canada. A better understanding of lesser-known species and their ecological roles needs to be developed. Other threats, such as habitat destruction, alien species, climate change and water and air pollution and are of continuing and growing concern. The government cannot do it alone—local stewardship is essential.

Then...and now

In 1992, Canada became the first industrialized nation to ratify the United Nations Convention on Biological Diversity. To guide national efforts to implement the Convention, the Canadian Biodiversity Strategy was developed. It outlines comprehensive measures for conservation and sustainable development; education and awareness; legislation and incentives and international cooperation. All Canadian jurisdictions agreed to report on specific activities and programs they would undertake to implement the Strategy.



Conserving Wildlife Diversity serves as a benchmark of progress in the initial stages of implementing the Canadian Biodiversity Strategy. Other subsequent reports on the implementation of the strategy will describe federal government actions concerning ecological management, aquatic and marine conservation and international cooperation.

Information: **Gregory Thompson** (819) 953-4068.

Hats off!

Conserving Wildlife Diversity was prepared by EC's Biodiversity Convention Office with input from EC services and regions across Canada.

Other participants included:

- Natural Resources Canada
- Canadian Museum of Nature
- Indian and Northern Affairs
- Department of National Defense
- Agriculture and Agri-food Canada
- Statistics Canada
- Parks Canada

Wildlife successes

Conserving Wildlife Diversity—
Accomplishments include:

- an ecosystem monitoring program, restoring wetlands and establishing new protected areas for wildlife;
- increasing awareness among Canadians about the importance of wildlife and habitat; and
- working with other countries to ensure species and habitat protection throughout the range of migratory species.

Towards cleaner water...

São Paulo—South America's largest city and the most heavily industrialized area on the continent. As in big cities all over the world, water and wastewater treatment are complex issues that affect the lives of millions of people.

Watershed Management 2000 is a three-year cooperative effort between Canada and Brazil to tackle the water management issues of priority in the São Paulo Metropolitan Region. EC coordinates a team of Canadian public and private sector experts currently working with São Paulo State environmental protection agencies. EC's Technology Transfer Office (Environmental Technology Advancement Directorate) in collaboration with other EC Services, is responsible for the overall management of the project. To date, more than 30 private sector companies and 50 partner organizations have been involved.

What's it all about?

The clean water project in Brazil focuses on the transfer of Canadian watershed management know-how to enhance Brazilian capacity. Since the project's inception in March 1997, EC has worked to build the multi-disciplinary Canadian team required to address the project's key components.

In the project's first year, information workshops, technical exchanges and training sessions were held to permit Canadian experts to better understand the São Paulo situation and increase Brazilian knowledge of the Canadian experience. These activities led to the development of pilot projects and tools to improve current management practices which will build lasting institutional capacity.

As the groups begin the third and final year of project implementation, efforts will focus on supporting the ongoing work within each key component and ensuring that the institutional linkages resulting from this project are maintained and strengthened.

Information:

Vic Buxton (819) 953-3119.

Pilot Project Results

- Implementation of a money-saving pollution prevention program by members of the ceramic industry in the Corumbataí watershed.
- The optimization of São Paulo's flagship wastewater treatment plant.
- Several clean water and wastewater laboratories are in the process of obtaining ISO Guide 25 certification.
- Following a Canadian model, a program for the agricultural application of sludge is being implemented in Metropolitan São Paulo.
- A working decision support system and Action Plan are under development for the Atibaia watershed.



Sampling sediment for metal analysis in Brazil's Corumbataí watershed.

Mary Anne Sharp

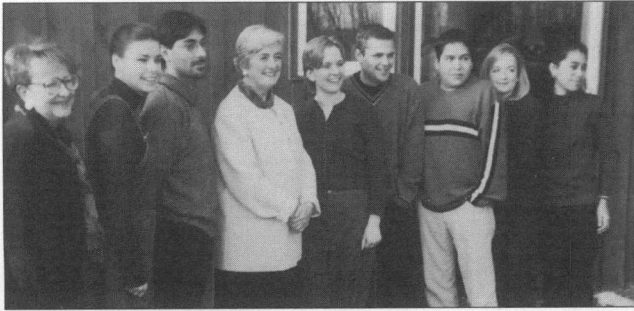
Watershed Management 2000— key components

- watershed management and planning
- pollution prevention
- sewer use control
- wastewater treatment plant optimization
- wastewater treatment plant operator certification
- sludge management
- laboratory certification

The youth of the round table



—STEVEN DUNNING AND TRUDY SERI SAMUEL



YRTE members met with Minister Stewart to discuss priority issues and youth involvement at EC. (L-R) Pat Dolan (EcoAction 2000), Carla Doucet, Pascoal Goems, Minister Christine Stewart, Ilona Dougherty, Jason Madden, Jarrod Miller, Genevieve Chanteloup (Minister's Office) and Arciris Garay.

CANTLEY, QUEBEC—At the November meeting of the Youth Round Table on Environment (YRTE), participants paved the way for the forum's future. The 14-member youth group evaluated their year, recommended improvements for 1999, and provided feedback on species at risk and climate change outreach initiatives.

Minister Stewart attended the meeting and explained her vision of the work of the YRTE, which included fostering local action and leadership, involvement in Departmental policy and program development and having senior staff participate in YRTE meetings. According to the Minister, "[The Millennium Eco-Communities initiative] needs committed people—especially the contribution of young people."

Young achievers

Over the last year, the YRTE has made its mark on the Canadian environment. Some of their achievements include:

- selecting the Polaris Award winners;
- suggesting youth-friendly changes to EcoAction 2000 program materials;
- establishing YRTE operating procedures;
- suggesting ways to increase youth involvement in EC policy development and program implementation; and
- consulting with Minister Stewart on regional, national and international sustainability issues of interest to Canadian youth.

New members are chosen by a selection team made up of representatives from environmental non-government organizations, youth groups, government, and past YRTE members. YRTE plans for the 1999-2000 fiscal year include looking at ways to increase youth involvement in public consultations, advising on youth-oriented departmental marketing activities and youth-friendly auditing of other departmental initiatives.

Information: **Trudy Seri Samuel**
(819) 953-0084 or youth.jeunesse@ec.gc.ca.

Public participation with PIZ

A Priority Intervention Zones (PIZ) Program work team from the Environment Canada St. Lawrence Centre has won **the Head of the Public Service Award** in the *Service Delivery Excellence* category, in recognition of the quality of their services and their zeal in developing and implementing the Community Involvement Program.

The PIZ Program is a partnership between the federal and provincial governments and Stratégies Saint-Laurent [St. Lawrence Strategies], a non-governmental organization that co-ordinates the efforts of the riverside populations. The program, which ran from 1993 to 1998, made it easier for communities along the river, working in PIZ committees, to take part in protection, restoration, conservation, and development of ecological use of the St. Lawrence. It is part of the Community Involvement segment of the St. Lawrence Vision 2000 (SLV 2000) Action Plan.

Achievements

With help from federal and provincial partners, the team:

- compiled the first local-level summary of knowledge about each of the 13 sectors of the St. Lawrence and Saguenay rivers;
- produced 58 reports bringing together physical/chemical, biological and socio-economic aspects of the region;

- helped federal and provincial government representatives develop a common vision for each section of the St. Lawrence and presented this vision at 11 public consultation meetings organized by PIZ committees.

The work team's support helped the PIZ Committees achieve some remarkable environmental and economic results. Among other accomplishments, they:

- established financial partnerships with local stakeholders totalling \$880,000 (municipalities, industries, etc.);
- undertook more than 90 environmental projects relating to protection, conservation, and rational use of resources, with budgets totalling \$1,700,000;
- created 34 jobs and generated over 70,000 hours of volunteer work worth an estimated \$700,000.

The outstanding results achieved by the PIZ Program work team demonstrated the importance and necessity of continuing this work in Phase III of the St. Lawrence Action Plan (ending in 2003). Priority was given to implementation of action plans and ecological rehabilitation plans developed by the PIZ committees.

Information: **Yolaine Saint-Jacques** (514) 496-2898.

Preserving Canada's Pacific province

Hidden along Canada's rugged west coast are a chain of wetlands—home to bear, deer, and elk; where Salmon fry congregate and seals and otters hunt offshore. For the five million waterbirds that journey along the Pacific flyway every year, these marshy oases provide food and resting spots during their long migrations. One group dedicated to ensuring that these habitats are safe for generations to come is the Pacific Estuary Conservation Program (PECP).

Over a decade of protection

The PECP was created in 1986 as a partnership of conservation agencies and government who could pool financial resources to buy B.C. wetlands. Since then, PECP has acquired 1,612 hectares around wetlands, has arranged the transfer and designation of 54,736 hectares of Crown lands for wildlife habitat and has received significant funding from the North American Waterfowl Management Plan's Pacific Coast Joint Venture.

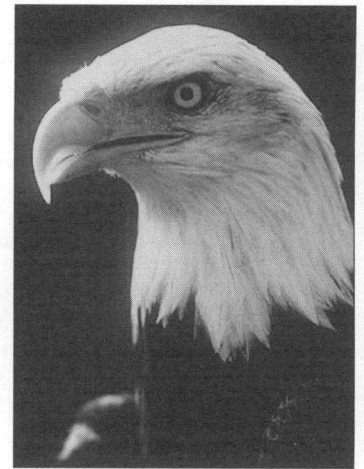
Though the PECP works to provide wildlife habitats all along B.C.'s coast, much of its efforts take place in the estuary of the Fraser River, the largest estuary on Canada's Pacific coast. The Fraser Estuary provides winter refuge for more than 130 species of birds and supports 4 million salmon and 1.4 million birds during peak periods of migration.

A common bond

Preserving soil based agriculture figures prominently in the PECP strategy. Farmlands are the only space available for future development between the sea, the mountains and the U.S. border. If

'Agriculture and wildlife go hand and hand. I never saw an eagle until I was 12, but now you can look out any window and see one. Agriculture is the reason those birds are here.'

***—Jack Bates, Director,
Delta Farm and Wildlife Trust***



they fall prey to commercial or industrial development, or are covered in greenhouse glass, they will never go back to farmland. What happens there directly effects the outcome of wildlife habitat preservation in greater Vancouver. If key Fraser Estuary lands go up for sale, the PECP tries to buy the property. If PECP buys a farm, they lease it back to a farmer. It is an expensive way to preserve wildlife habitat. But it works.

Migratory munchers

What do you do then when the farmers no longer see wildlife as a 'good neighbour'. Migratory birds often feed off farmers' crops, causing huge financial losses. To compensate, PECP funded a pilot project to provide 'seed money' for farmers to grow crops of winter cereals on their otherwise fallow lands. The

resulting "Greenfields Project" administered by the Delta Farm and Wildlife Trust serves a dual purpose. It improves soil structure with organic material and disperses damage done on farmlands by birds.

In a dozen years the PECP has built a successful partnership to conserve significant estuaries along Canada's west coast for long term sustainable use. By inviting consultations with the many industrial, agricultural, government, residential and conservationist stakeholders in B.C. wetlands, the PECP has established a strong presence at negotiating tables for wildlife habitat in B.C., Canada's most biologically diverse province.

Information:

Geoff Gilliard (604) 713-9516.

PECP partners

- Ducks Unlimited Canada
- The Nature Trust of B.C.
- Wildlife Habitat Canada
- Habitat Conservation Trust Fund
- Environment Canada
- Department of Fisheries and Oceans
- B.C. Ministry of Environment Lands & Parks

A win for wetlands

At May's opening ceremony of the Conference of the Contracting Parties in San José, Costa Rica, PECP received international recognition by winning the first **Ramsar Wetland Conservation Award** for their work preserving wetlands along the B.C. coast. The award includes \$10,000 (U.S.) donated by the Danone Group of France.



Official Languages— a matter of respect

This issue launches our new column which provides practical tips on using English or French in the workplace and when serving the public.

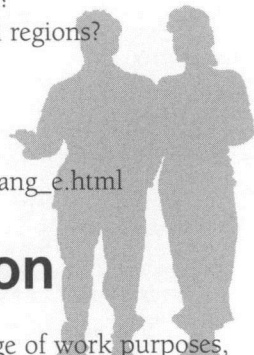
A practical tool on Official Languages

Want to know more about...

- Serving the public in French and English?
- Language of work in designated bilingual regions?
- Other official language issues?

Check out EC's new Official Languages Management Framework at:

http://infolane.ncr.ec.gc.ca/~hr/polguide/offlang_e.html



Bilingual supervision

In designated bilingual regions for language of work purposes, supervisors have a pivotal role to play in making their work environment conducive to the use of both official languages. Their attitude may set the tone for the entire unit.

Some tips for managers:

- maintain and improve your own second language proficiency and encourage employees to do the same;
- provide opportunities for employees to work as much as possible in the official language of their choice individually, in teams and at meetings;
- whenever possible, communicate with employees, both verbally and in writing, in their official language of choice;
- make every effort to provide employees with appraisals in the official language of their choice, and
- ask employees for their suggestions on maintaining a work environment where English and French are used.

Designated bilingual regions for language of work purposes

- the National Capital Region;
- certain parts of Quebec, including the Montreal region;
- certain parts of northern and eastern Ontario; and
- the province of New Brunswick.

Information: **Roch Davidson** (819) 994-7667.

Occupational Safety & Health

The mouse that kills

Jack Mann, Ontario Region Safety and Health Coordinator

Warm weather means cottage opening time! Sweeping, dusting, and airing out are all part of the ritual. But there are precautions you should take as there could be a serious hazard lurking in your recreation abode.

Cottages and closed up buildings are perfect nesting locations for deer mice. Not to be confused with the harmless and disease-free brown or house mouse, the deer mouse is a white-footed, white-bellied rodent normally found in rural areas. It is the **only** Canadian carrier of Hantavirus, a disease of the respiratory system. While the disease isn't common—less than 30 people have been infected in Canada in recent years—it can prove fatal without early and vigorous medical intervention.

Do you have deer mice?

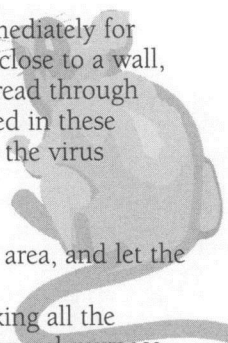
When opening your cottage, check immediately for infestation signs (black droppings usually close to a wall, and the smell of urine). The disease is spread through contact with the aerosolized virus contained in these droppings—so avoid contact and don't let the virus become airborne.

If you find mouse infestation:

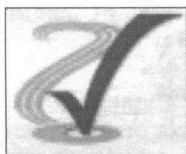
- Open all windows and doors, leave the area, and let the air circulate for 30 minutes or more.
- Spray the infected area, thoroughly soaking all the material and any dead animals with a general-purpose household disinfectant solution mixed as directed. A four tablespoons of household bleach per gallon of water (15 ml/litre) is an effective substitute.
- Using rubber gloves, sweep up all the residue (**do not vacuum**) and seal it in a plastic bag. Dispose of the bag and its contents by burning it or burying in a 2-3 feet deep hole.
- Wipe down affected countertops, drawers, etc. with a solution of detergent, disinfectant (four tablespoons bleach/gal) and water.
- Thoroughly wash gloves before removing them and wash hands immediately thereafter.
- Launder any potentially contaminated bedding with hot water and detergent.
- Check the outside of your dwelling for small openings and plug even the smallest holes with steel wool.
- Avoid outdoor nests or area of heavy rodent infestation, if at all possible.

Questions about Hantavirus? Contact your Regional or Site Safety and Health Coordinator.

Information: **Gaetan Levesque** (819) 953-2431.



Make your voice heard!



There was a little something extra with your May 26 pay envelope. All federal public servants

received a questionnaire about their workplace and how to make the federal government an employer of choice. So take a few minutes, fill it in and know you've made a contribution towards improving the public service for everyone. Stay tuned for more information.

Information:

Line Lamothe (819) 953-1575 or http://infolane.ncr.ec.gc.ca/~hr/hrissue/pssurvey_e.html

Serving with integrity is everyone's business



Value-added collaboration: "a post, position or appointment with an organization outside the Government of Canada (ie. Universities, research institutes, etc.) in which the individual collaborates with the staff and/or students of that organization toward a common end which will benefit the organization and the Government of Canada."

In the world of science and technology (S&T), collaborative positions—and the conflicts of interest that go with them—are becoming more and more common. EC, recognizing the great advantages such situations provide, has developed a new policy that will ensure their sound management. The new "Departmental Collaborative S&T Positions Policy" sets out broad guidelines regarding collaborative positions. It also defines the required approval process and the people responsible.

The new policy is found under the "Work Ethics" section of the Human Resources web site at http://infolane.ncr.ec.gc.ca/hr/workenv/ethics_e.html.

Information: **Robert Gervais** (819) 997-0653.

Human Resources—East meets West

Recently, EC welcomed Human Resource (HR) Managers from various provinces of China. On the eve of a major Chinese workforce reorganization, they had come to solicit advice from their counterparts in the West. HR Director General Ginette Cloutier and her team shared their staffing, workforce reduction, performance management and electronic communications knowledge. After presentations and a brief tour, the Chinese delegates left feeling better armed to face their changeover. Mission accomplished!

Information:

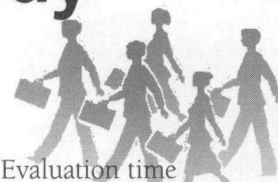
Jovette Champagne
(819) 997-6735.



Ginette Cloutier (front, fourth from left) with visiting Chinese delegates and EC's HR team.

Jim Haskill

Help is on the way



It's Performance Evaluation time again—an opportunity to review the past and prepare for next year's challenges.

Check out Human Resource's site for help on performance management. You'll find a variety of tools to help you with the process, including a new, easy-to-print quick kit, which contains the evaluation form and a checklist for your performance discussion. It's at http://infolane.ncr.ec.gc.ca/~hr/workenv/performance_e.htm.

Information:

Jovette Champagne (819) 997-6735.

Attention—this is only a drill

SAULT STE. MARIE—A freighter carrying taconite and a tanker loaded with #6 fuel oil collide on the St. Mary's River, leaking 1.7 million gallons of oil. Ontario Region staff are mobilized to lead the Regional Environmental Emergencies Team—providing the on-scene commander with advice on response strategies, oil fate and effects, environmental resources at risk, and response priorities. EC also assists in the operation of the Joint Information Centre, providing a central clearing-house of information for the public. The teams did their jobs and did them well—luckily, the environment was never at risk.

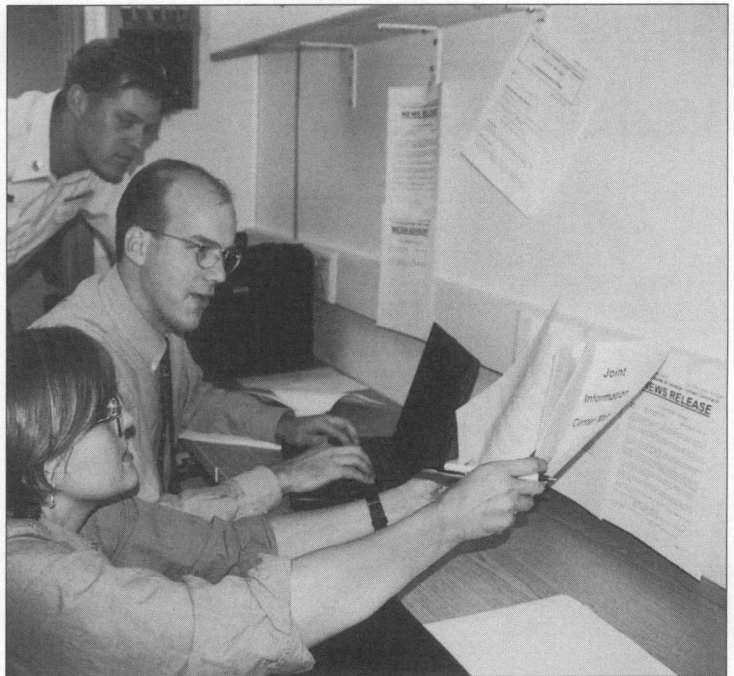
The fast-paced action of this environmental emergency was all part of CANUSLAK '98 held last September. This training exercise tested the Canada/U.S. Joint Marine Pollution Contingency Plan for the Great Lakes—CANUSLAK Annex.

Information: **Steve Clement** (416) 739-5908.

Getting their 'exercise'

Participants in CANUSLAK '98 included:

- EC, Ontario Region;
- U.S. Coast Guard;
- Canadian Coast Guard;
- local First Nations; and
- Ontario Ministries of the Environment and Natural Resources.



(L-R) A member of the U.S. Coast Guard looks on as EC's Mike Maddock and Elizabeth Everhardus tackle an emergency during a training exercise at CANUSLAK '98.

Sunscreen—don't leave home without it



"Sunscreened"

Things are heating up from coast to coast! The ozone layer, which screens out most of the sun's harmful ultraviolet (UV) rays, has become thinner.

This year, EC scientists predict that the average thickness of the ozone layer over Canada will be 1-5% less than normal (pre-1980) values. This decrease will allow 1-6% more ultraviolet radiation to hit the earth, so it's important to protect yourself and minimize your exposure to the sun.

Tips for sunny weather

- Try to avoid sun exposure between 11:00 a.m. and 4:00 p.m.
- Find shade and cover exposed skin.
- Wear a hat, sunglasses and sunscreen.

Check **UV Index Reports**, issued daily by EC, on radio, television or in newspapers across Canada.

Claude Fortin

EPS on the right road

The Environmental Protection Service (EPS) held its first Environmental Management System (EMS) workshop last November.

Jean Bilodeau (Director General, Administration Directorate, Corporate Services) and his EMS group presented an historic overview, discussed various operational work group mandates, and reported on the transition process taken by the national team. Ed Norrena (Director General, Environmental Technology Advancement Directorate) saw this meeting as an excellent opportunity for the two groups to meet and stressed the importance of having an EMS group within EPS.



Jim Haskill

A meeting of the minds—participants at the Environmental Management System (EMS) workshop.

Attendees were able to discuss progress made in making operations more ecological and allowed teams the opportunity to exchange ideas, expertise and concerns about how activities should be managed.

Information:

Richard Saucier (819) 997-8282.

Ed Norrena heads up the EPS advisory committee which includes one representative from each directorate; eight representatives from work groups at the national level; as well as EPS green committee members.

It's great to be back...

Over the last several months, *Let's Talk Green* has faced some challenges. It was unfortunate that our last two issues had to be cancelled due to resource pressures but we're developing a strategy to ensure that we'll be on a more solid finance base in the years to come.

We're working on improving your national newsmagazine, so over the next few months you'll see some changes. You'll be receiving a more compact product with shorter articles, while still enjoying an informative, cost-effective publication that reflects EC's diverse programs and dynamic staff.

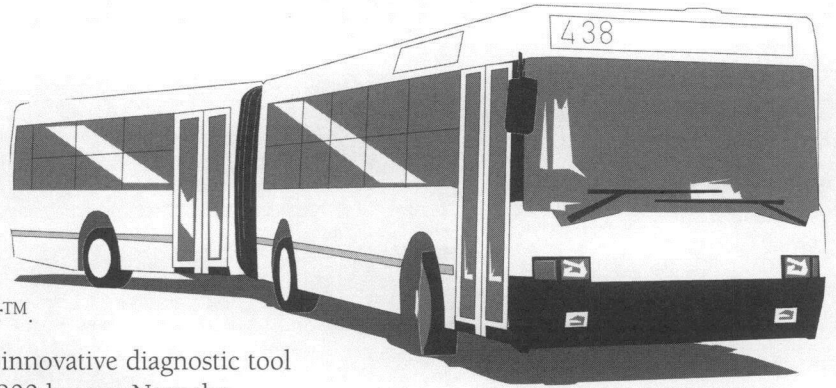
Your comments and feedback are always most welcome. We'll see you in the Fall!


François Guimont
Editor-in-chief



Cleaner air in Ottawa

OTTAWA—On February 1, Minister Christine Stewart, accompanied by Dr. Dave Thornton (Director, Environmental Technology Centre), announced the commissioning of an exciting new green technology—the Multi-Dynamometer Simulator™.



A joint project between EC and OC Transpo, this innovative diagnostic tool will enable OC Transpo to fine-tune its fleet of over 800 buses. Now the Ottawa transit company will be able to find and address problems before they cause serious damage, resulting in vehicles that are cleaner, safer and less costly to operate. As well, exhaust emissions from their buses will be substantially reduced.

Brought to you by...

The Multi-Dynamometer Simulator™ was developed at the Environmental Technology Centre in Gloucester, Ontario by Jacek Rostkowski, Will McGonegal and Jim Fearn of the Emissions Research and Measurement Division and is being marketed by EC's Intellectual Property Office.

ETC is currently working with EC's Intellectual Property Office to identify private-sector companies who will develop, manufacture and market dynamometers based on this technology for which EC is seeking patent protection. License fees and royalties will be paid to the Crown for reinvestment in environmental protection research and development.

Information:
Bob Bullen (819) 997-2962.

A Simulated Roadtest

The Multi-Dynamometer Simulator™, which is installed in the OC Transpo headquarters garage, is able to simulate road conditions and diagnose vehicle performance problems. Buses are driven onto the machine and a series of tests are performed to analyze the engine/transmission, powertrain and brake systems. Once the dynamometer's computer diagnoses the problem, mechanics can then fine-tune the buses.

Weather reports from the 'highest' Arctic

On an endless northern night in February, Atmospheric Environment Service (AES) research technicians Alan Gallant and John Deary installed what is believed to be the world's most Northerly automated weather station. With assistance from military personnel stationed at CFS Alert, the technicians traveled to Williams Island, NWT, located just off the tip of Ellesmere Island. The battery operated weather station switched to solar power after polar sunrise in March and will operate until summer. The data will be used to investigate local meteorology on Williams Island.

A set of intensive experiments led by Purdue University Chemistry professor Paul Shepson and AES scientist Jan Bottenheim, are being considered for the Island during the winter and spring of 2000. The experiments will investigate the impact of snow and ice on the chemistry of the lower atmosphere in the high Arctic, in particular with respect to the occasional complete destruction of ozone during the period of polar sunrise.

Information: **Jan Bottenheim** (416) 739-4838.

Environmental issues workshop

MONTREAL—Last February, federal departments and agencies in Quebec were invited to attend a workshop on Environmental Issues to get strategic information on 'greening' and to share experiences.

Organized by representatives of the Sectorial Round Table on Greening, this seminar, the fourth in the series, offered something new this year: a pre-workshop conference session for people new to the field of environment.

For two and a half days, participants heard presentations by top-notch speakers on themes such as legislation and the *Canadian Environmental Protection Act*, environmental management systems, waste management, contract management, transportation and more. Although environmental considerations are increasingly becoming an integral part of any project—attendees learned that significant efforts will be needed to foster co-operation among federal agencies to provide training and disseminate information.

At the end of the meeting, Marie-France Bérard, Director, Environmental Protection Branch, Quebec Region, invited participants to meet at the 2001 Workshop. There is no doubt that the federal government's commitment to sustainable development will outlast the Y2K bug!

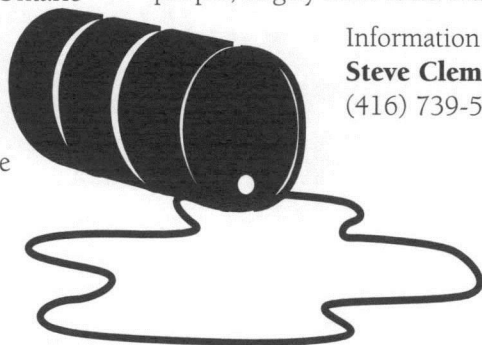
Information: **Hélène Perrault** (514) 496-6976.

Emergencies will happen!

Q: What are the two leading causes of environmental emergencies in Ontario?

A: Human error and equipment failure.

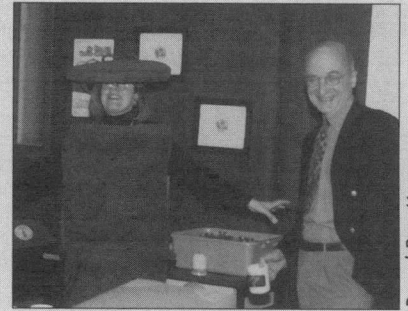
To better deal with industrial spills, Ontario Region's Environmental Emergencies Section and the Ontario Ministry of Environment's (MOE) Spills Action Centre are working together to shift the focus from spill clean-up to spill prevention. Part of the Canada-Ontario Agreement, this activity is one of Ontario Region's pollution prevention projects.



As part of this initiative, Ontario Region and MOE hosted a series of five workshops called *Implementing an Industrial Spill Prevention Program—A Practical Approach*. The workshops focused on developing and maintaining effective spill management programs and were attended by more than 250 people, largely from local industries.

Information:
Steve Clement
(416) 739-5908.

CEAA goes green



Pascal Barette

(L-R) Nancy Adams, DG Corporate Services and Paul Bernier, Vice President, Program Delivery, get into the greening spirit over CEAA's new NO WASTE Program.

Staff from the Canadian Environmental Assessment Agency (CEAA) recently took a giant step in "greening their operations".

The 100 employee Agency implemented a "No Waste Program" at its HQ office in Hull and enhanced its recycling program by adding polystyrene and rigid plastics. Employees said "farewell" to their traditional garbage cans, replacing them with new mini-bins and recycling stations.

CEAA—which reports to the Minister of the Environment—champions the practice of environmental assessment in Canada. "It is important for us to show leadership in greening government operations and continuously improve our environmental performance," said project officer Chantal Sirois.

The Agency benefited from EC's experience—implementation was much easier, and even enjoyable! The Agency particularly thanks EC's Ted McDonald, PWGSC's Isabelle Deslandes and Fontaine Investments' Daniel Louiseize for their energetic collaboration in bringing this program to the Agency.

Information:
Chantal Sirois (819) 953-0755.

Student wins with hockey mentoring program

TORONTO—For many young people, their dreams may be big, but they often haven't the time or money to make them a reality. So when EC Enforcement, Ontario Region, was approached to be a mentor for a student at Toronto's St. Michael's College School, it was an excellent opportunity to help the younger generation move towards a brighter future.

"Net" benefits

St. Michael's College is the base for the Ontario Hockey League's (OHL) St. Michael's Majors. When the team rejoined the league for the 1997-98 season, a Corporate Mentoring Program was set-up by Dennis Mills, Governor of St. Mike's, and MP for Broadview-Greenwood. The program was created to give the players exposure to alternative career choices, should hockey not be their ultimate profession. The players were given a chance to learn new skills and gain experience needed for the workforce.

In October 1997, Major's player Jason Cannon was introduced to his mentor Dave Pascoe (Manager, Emergencies and Enforcement Division). An Ohio native, Cannon has always been interested in the environment. "The [Majors] tried to match our interests with an appropriate company", said Jason. "I was really lucky to be matched with Environment Canada".

Given the positive results achieved during 1997-98, St. Mike's asked EC if they would continue with the mentoring program for the 1998-99 hockey season and accept Cannon back. The department agreed.

Over his two years, Jason worked part-time with a variety of enforcement officers, both in the office and in the field. He learned about the *Fisheries Act* and the *Canadian*

Environmental Protection Act, and was also given exposure to wildlife legislation and programs. Eventually, he narrowed his sights on the pollution program where he learned the procedures for collecting and testing air, water and soil samples at pulp and paper mills, secondary lead plants, refineries and mines.

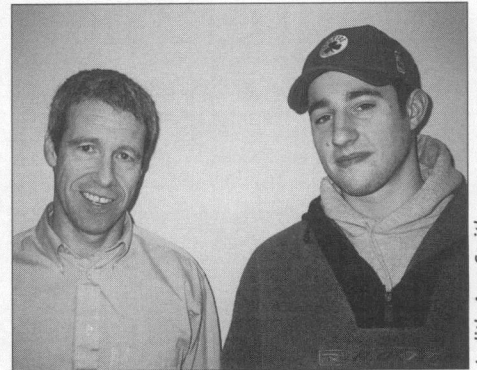
During the mentoring program, Pascoe and Cannon became close. "I now consider him a good friend", explains Pascoe. "Even though he has left St. Mike's and returned to the U.S. we still talk quite often about his career goals, plans for next season and other interests we have in common."

According to Pascoe, the time and money EC invested into the mentoring program has been worth it. "Not only was it gratifying to be able to help someone through this type of program, but it was of benefit to our organization. We were able to get a reality check on our programs and procedures as a result of the questions that Jason asked."

Cannon claims that the program "did exactly what it was supposed to do. The experience has been helpful in that environmental protection is something that has interested me for some time now and this has strongly encouraged me to pursue this as a career further down the road."

Score one for the environment!

Information: **Dave Pascoe** (416) 739-5897.



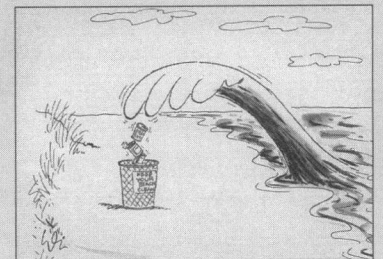
Dave Pascoe and Jason Cannon—one team that proves matching students with EC mentors works out for everyone.

Judith Ann Smith

Protecting Canada's oceans

March 26, 1999—A draft report of *Canada's National Programme of Action for the Protection of the Marine Environment from Land-based Activities* (NPA) was released for a 60-day consultation period. The goal: to find cooperative solutions to better protect our oceans. Watch future issues for program updates.

Information: **NPA Website** at http://www.ec.gc.ca/nat_action/index_e.html



Cleaning up Coburg Island

COBURG ISLAND, NWT—Thanks to some exceptional team work, the abandoned Northern Water Research Station (NWRS) no longer poses an environmental threat.

Coburg Island lies in the Lady Ann Strait between Devon Island and Ellesmere Island, ~120 km southeast of Grise Fiord and 460 km northeast of Resolute Bay. As part of the Nirjutiqavvik National Wildlife Area, it supports significant seabird populations (over 350,000) as well as polar bears, seals and walrus.

NWRS through the years...

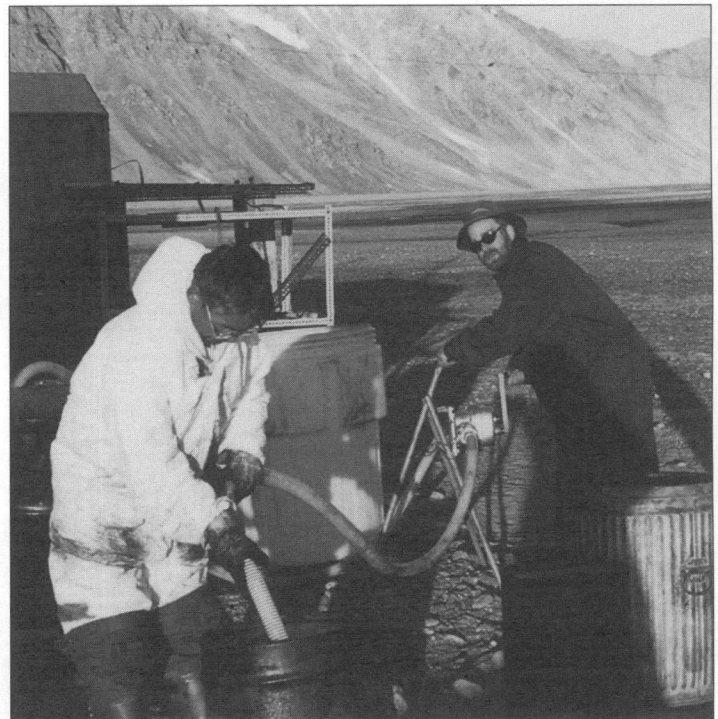
1960s—NWRS was established as a base for the study of Island flora and fauna and of fisheries in the Lady Ann Strait and Baffin Bay. McGill University, the University of Calgary, the Arctic Institute, Fisheries and Oceans, and Energy, Mines and Resources jointly operated the station.

Early 1980s—Operations ceased and the site was abandoned.

1996—Action 21 funded an environmental assessment to identify the need for the clean-up, removal and/or disposal of hazardous materials including waste solvents, lubricating oils, laboratory chemicals, batteries, glycol, gas cylinders, hypodermic syringes and over 100 fuel barrels. The site also contained field equipment, tools, construction materials, food stuffs and other miscellaneous items.

1997—Grise Fiord's Ivik Hunters and Trappers Organization (HTO) obtained Action 21 funding to clean-up non-hazardous materials at the site, and to repair the main structure for use as an emergency shelter. A shed was torn down and garbage such as paint and propane cylinders was removed. The main building was severely damaged by polar bears, but volunteers managed to repair the outer shell.

Prairie and Northern Region received funding from the National Potentially Contaminated Sites Working Group in Ottawa, to conduct the hazardous materials clean-up.



Trash compacting—a team cleaning-up the abandoned Northern Water Research Station site de-heads old drums so they can be flattened.

1998—Brian Heppelle (EC, Yellowknife) and three crew members from Grise Fiord returned to the site to deal with the 16,000 litres of fuel stored in barrels that were up to 25 years old. Some barrels were severely corroded and leaking, contributing to stained and hydrocarbon-contaminated soil areas.

Even though the site was difficult to access and refuse and hazardous materials had to be contained and transported long distances, the operation was a complete success.

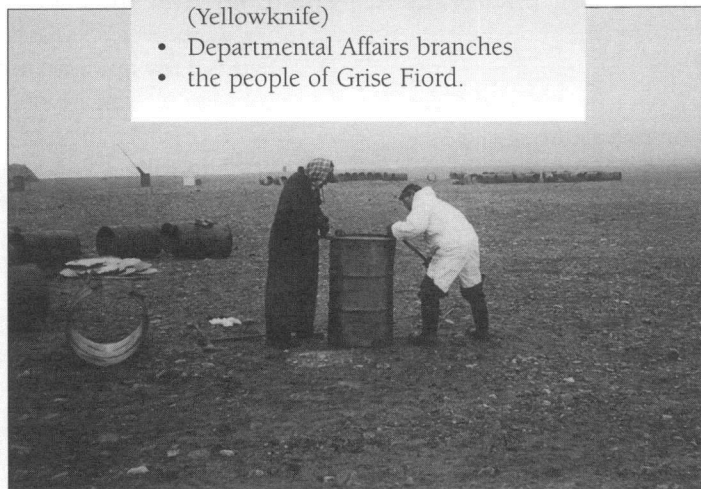
EC will continue to work with the local HTO to complete the removal of the stockpiled non-hazardous waste and to clean-up the main building for use as an emergency shelter.

Information: **Brian Heppelle** (867) 669-4727.

The clean-up crew...

Members from:

- Atmospheric Environment (Facilities)
- Environmental Conservation
- Environmental Protection (Yellowknife)
- Departmental Affairs branches
- the people of Grise Fiord.



An EC clean-up crew transfers fuel from deteriorating barrels so it can be safely disposed of.

Looking to the future

In January, EC staff were on hand at Regina's "Blueprint for the Future" Aboriginal Youth Career Fair to provide over 1,000 Aboriginal high school students with information about career opportunities within the department.

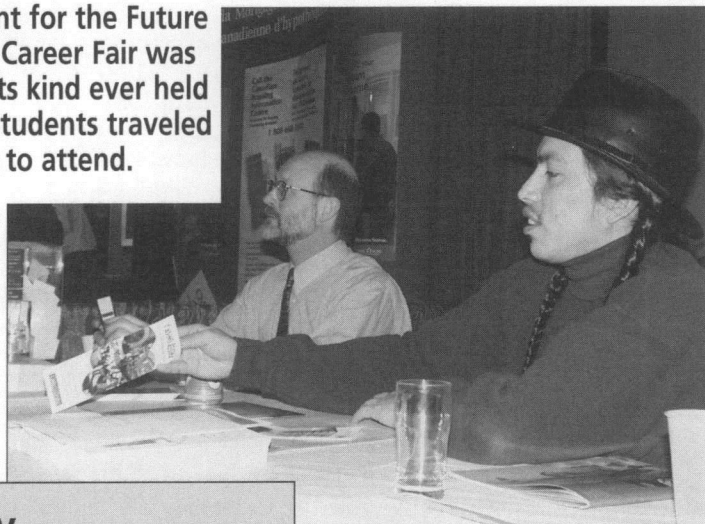
This year's Blueprint for the Future Aboriginal Youth Career Fair was the largest fair of its kind ever held in Canada. Some students traveled all night just to attend.

Preparing for careers—'ASAP'

At the fair, EC highlighted Prairie and Northern Region's Aboriginal Student Apprenticeship Program (ASAP). The program provides First Nations' students with work experience while completing a post-secondary education in a required discipline for positions within the Department.

Successful high school graduates are assigned an EC mentor who arranges work term opportunities and offers educational advice. Upon completion of the program, students are considered for career opportunities within EC's Prairie and Northern Region.

Michael Star, an education counselor from the Starblanket Reserve in Saskatchewan, said his students were excited about attending the fair and had gathered valuable information. "I think it's important for students to attend events like this and become aware of the choices open to them," he said. "It



Dena Allen

Making the day

EC's booth was staffed by:

- Ellery Starlight—Environmental Protection (Calgary);
- Andy Smart—Environmental Assessment Coordinator (Regina); and
- Dena Allen—Communications Officer (Regina).

EC staff were on hand to help Aboriginal students find out how to land a job with the department, 'ASAP'.

motivates them and shows them what kinds of careers are out there."

Janell Crowe, a Grade 12 student from Punnichy, Saskatchewan agreed; "I've learned that there's lots of opportunities out there. I'm just more aware of my options now."

Information: **Gloria Trimble** (780) 951-8721.

Retirements



Cal Carter

Mary Salmena

Atmospheric Environment Service (AES)

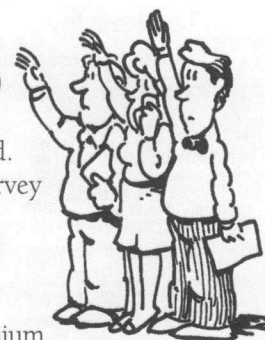
Thirty-six years after joining the government, **Cal Carter** retired in April. Cal joined AES in 1963 as a surface weather observer. He worked in Upper Air Observing prior to moving to Administration in 1971. He was named Chief of Finance in 1985 and his last position was Ontario Regional Director, Finance and Administration.

Colleagues will not forget his ability to solve finance issues, nor his dry sense of humour. His future plans include gardening, bird watching, cooking and travelling.

Environmental Protection Service (EPS)

In June—with over 35 years service—**Dr. Dennis Lawson** (Saskatchewan) retired. Dennis began his career with Geological Survey of Canada in 1964. In June 1971, while working with Inland Waters Directorate, he became one of EC's first employees.

In 1982, Dennis joined EPS (Regina) as a Uranium Specialist and did a lot of work in Environmental Impact Assessments of Uranium mines. Since then, Dennis has garnered much respect from colleagues in other regulatory agencies and within the uranium industry. He also continues his dedication to improve public awareness and further scientific knowledge through the organization of public forums and teaching at the University of Regina.





Graduating with their ETV certificates

MONTREAL—March 25, 1999 was a special day for Canada's Environmental Technology Verification (ETV) Program, Environment Canada and participants of the 1998-99 ETV graduating class.

EC's Minister Christine Stewart presented ETV Certificates during Americana 1999—the Pan American Environmental Technology Trade Show and Conference. She was joined by Master of Ceremonies John McMullen, President of ETV Canada Inc.

Run by ETV Canada Inc., under license from EC, program certification means that a company has official verification of their environmental performance claim. The ETV Program began in 1997 and presently boasts a total of 22 ETV certificate holders.

The increasing number of ETV graduates is proof of the program's success and the federal government's commitment to the environment.

Environmental Conservation. The certificate has also been a deciding factor in contract competitions won by EcoWaste.

- **Glytex Inc.** won a contract to install a glycol recycling process at Dorval

Airport just one day after receiving their ETV verification. Talk about timing! "Dorval Airport is very environmentally conscious, and the ETV verification made the difference", says Tony McCreath, President of Glytex.

Information: **Ray Klicius** (819) 953-8717.



The newest ETV graduates pose with EC's Minister Christine Stewart (centre).



Introducing ETV's newest graduates

- EARTH (Canada) Corporation (*reusable sorbent*)
- Sanexen Services Environnementaux Inc. (*PCB decontamination*)
- Concrete Environmental Solutions Inc. (*stabilization/solidification*)
- Trojan Technologies Inc. (*soil vapour extraction and destruction*)
- International Landmark Environmental Inc. (*A.C.T. sorbent*)
- Midwest Industrial Supply Inc. (*dust suppressant*)
- Glytex Inc. (*glycol recycling system*)
- Environmental Management Solutions (EMS) Inc. (*site remediation*)

Winning with ETV

Graduates' success stories include:

- **EcoWaste Solutions** was awarded Alaska's Engineering Project of the Year, and their ETV-verified EcoWaste Oxidizer was nominated for the award by the Alaskan Department of

IP commercialization workshops

Over the fall and winter, EC has been taking the 'Commercialization of Intellectual Property' message across the country, with workshops in Halifax, Montreal, Ottawa, Toronto and Edmonton. Approximately 100 EC employees attended the two day sessions which focused on the innovators, inventors, managers and staff involved with the management of Intellectual Property (IP).

The workshops provided a variety of information related to the commercialization of IP, highlighting the policies, regulations and practices regarding IP management itself and its place within EC. As well, detailed information was provided on the identification, evaluation, and protection of IP, legal considerations

and documentation, business strategies development, marketing, negotiating and collaborative R&D alliances.

EC's IP commercialization process was also reviewed, with emphasis on the responsibilities, skill sets and competencies required to efficiently plan and implement a successful business development strategy and accomplish commercialization success.

Because of the variety of considerations and competencies required to deal with IP technologies, staff responsible for IP need access to comprehensive IP management and commercialization services. EC's Intellectual Property Office can provide you with these services, in most cases, free of charge.

The IP Office is contemplating providing additional training sessions and presentations in the upcoming year. As well, additional briefings on more specific or general topics will be arranged.

Information:

Bob Bullen (613) 997-2962.

Keeping EC up and running

The race to the Millennium is fast approaching and EC is striding to the finish line.

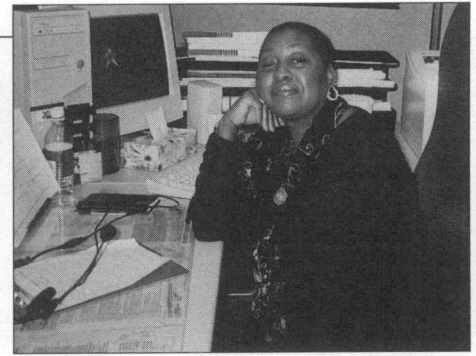
Ontario Region's Year 2000 Project Team is busy working on Mission Critical work plans, ranging from Environmental Protection (see "Racing against the clock", *Let's Talk Green*, Nov/Dec. 1998) to the remediation of non-compliant desktop PCs. Working behind the scenes on many of these projects is Facilities representative, Elma Dixon.

She works hard for the money...

Do you know if you'll have clean drinking water or secure building access when Y2K hits? Many things of utmost importance to the health, well-being and

safety of EC employees are often taken for granted. Elma has been working on Year 2000 issues relating to EC's Mission Critical sites and labs. Ensuring Downsview's diesel generator is certified compliant, testing the Uninterrupted Power Supply systems for EC's automatic weather and radar stations, as well as running tests on the building's systems (alarms, elevators, heating and cooling systems) is all part of the job.

By December 31, 1998, Elma had contingency plans developed for all work plans in her control; however, this may not be enough. In the event of more serious Year 2000 failures outside EC, she must prepare the deemed Mission Critical facilities with enough drinking water, diesel fuel and telecommunication alternates to last an undetermined amount of time.



Elma Dixon

Laurie Thibeault

Once contingency plans are submitted for Treasury Board approval, Elma will start preparing and coordinating people and supplies. This way, in the event of some serious Year 2000 software problems, the facilities will be able to support the employees required to fix them.

Information:

Tony Colavecchia (416) 739-4128
(Year 2000 Project for Ontario Region),
Elma Dixon (416) 739-4150 or visit
<http://origin.on.ec.gc.ca/y2ont>.

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Protecting Crown Assets

Intellectual property (IP) developed by EC employees in the course of their duties is owned by the Crown. However, IP jointly developed by EC employees and contractors or solely by contractors paid by EC may not necessarily belong to the Crown. An agreement written in accordance with government policy will usually determine ownership. It is important that EC employees consider IP issues in their work as they are valuable assets.

EC uses a variety of legal tools to protect IP. The most common are patents, trade-marks, copyright and trade-secrets.

A patent is the right to exclude others from using, making and selling an

invention. The government grants patents to inventors when the invention meets certain legal requirements (ie. proper subject matter, novelty, usefulness and inventiveness). A patent generally lasts 20 years from the date of filing the application for a patent.

A trade-mark is a word, symbol, design or combination of these used to distinguish the wares and services of one business from another. Trade-marks are often used as company and product names and therefore reflect the goodwill and reputation of both. "Official" government owned trade-marks are treated advantageously over other trade-marks. Samples of registered EC trade-marks are: Envirofax™ and MAP™.

Copyright is the sole right to reproduce a work such as books, photos, music, videos or software. Copyright generally endures for the life of the author of the work plus 50 years after their death. Registration of copyright is not necessary but it is advantageous especially for commercialized works. The copyright notice should appear on all EC works, for example: © Her Majesty the Queen in Right of Canada as Represented by The Minister of the Environment, 1999.

A trade-secret (usually technical in nature) and **confidential information** (usually commercial in nature) is information not generally known to the public. It provides commercial advantage to the

holder and/or results in harm if disclosed. It cannot be registered and must be protected by administrative barriers (marking documents as "confidential" and using non-disclosure agreements) and physical barriers (locked filing cabinets, personnel passes and signs). While there is no trade-secret statute in Canada, the common law affords significant protection to trade-secrets and confidential information.

Information:

Peter Iswolsky
(819) 953-1837;
e-mail IPOFFICEPI(NCR)

Next issue's topic:

Finding the right commercialization arrangement for your Intellectual Property.

Going global on a global issue

Canada is playing a strong role in engaging other countries in addressing the global climate change challenge. EC's Environmental Technology Advancement Directorate (ETAD) is working with the World Bank and the Government of Argentina to prepare a national climate change strategy study for Argentina.

The study will provide Argentina with a strategy to develop and analyze options and opportunities for greenhouse gas (GHG) offsets, and to identify potential GHG abatement and technology transfer projects.

Canadian project authorities are providing expertise in areas including macro-level economic projections of the GHG emissions trend for Argentina and quantifying the available GHG offsets. ETAD's mandate and experience in advancing environmental technologies domestically and internationally provides a value-added contribution to the study.

Initiated in August 1998, the study's first priority was to help the Argentine government examine potential GHG reduction and abatement techniques. This was done in preparation for their strategic negotiations at the international Conference of the Parties, COP4, hosted by Argentina in November, 1998. At this event, Argentina



Gearing up to protect global climate—participants at the National Climate Change Study in Argentina.

This collaborative study is an activity under the Canada-Argentina Memorandum of Understanding (MOU) on Environmental Cooperation, signed November 1996, between the Argentina National Environment Secretariat, Environment Canada, and Industry Canada.

and Kazakstan were the first non-Annex I countries to announce their commitment to consider voluntary reductions in GHG emissions.

The preliminary draft report was recently completed and is undergoing review by the Steering Committee. The final study report will be presented in June.

Information:
Ginny Hardy (819) 953-9369.



Upcoming Events

June 20-July 9, 1999
Halifax, Nova Scotia
Eighth Annual International Environmental Seminar (IEMS)
Contact: IEMS, Dalhousie University (902) 494-3932/2879; e-mail: IEMS@is.dal.ca

July 12-16, 1999
Halifax, Nova Scotia
Protected Areas Management—Terrestrial and Marine Course
Contact: Dr. Martin Willison (902) 494-2966/3511; e-mail: martin.willison@dal.ca

November 22-24, 1999
Hull, Quebec
Government on the Net—The Net Result. The 5th annual GovNet'99 conference.
Contact: Conference Secretariat, National Research Council Canada (613) 993-0414, Fax: (613) 993-7250, <http://www.nrc.ca/forum/govnet99>.

EC—at the table

The Argentina/Canada team is led by a Steering Committee comprised of officials from the World Bank Carbon Offsets Fund, Argentina national government agencies, and EC. Vic Buxton, Director, Technology and Industry Branch, ETAD is EC's Steering Committee representative. ETAD's Ginny Hardy is project coordinator, providing liaison and guidance to Canadian consultants.



Awards Awards Awards Awards

Environmental Protection Service

Three long-time EC employees, (L-R) **Antoinette Tremblay**, **Barrie Schacker** and **Sue Stechyson**, recently received **25-Year Service Awards**.



Janet Fewster



Jim Haskill

Citations of Excellence were presented to members of EC's Strategic Options Process Team (National Office of Pollution Prevention) for conducting stakeholder consultations to identify management options for Toxic Substances on the Priority Substances List 1. L-R (back) **Ed Wituschek** (Pacific and Yukon), **Barry Munson** (Prairie and Northern) and HQ personnel **John Prinsen**, **Art Sheffield**, **James Riordan** (presenter), **Serge Langdeau**, (front) **Nathalie Tremblay**, **Raouf Morcos**, **Josée Lavergne**, **Ross White**, and **Pat Finlay**. Absent: **Joe Kozak** (Atlantic) and **Bruce McEwen**.

The Environmental Technology Centre in Gloucester, Ontario presented **Instant Awards** to four exceptional employees (L-R):

- **Robert Thomas**—for his excellent work in mass spectrometry and his many years of service on the Health and Safety Committee.
- **Alka Steenkamer**—for her work on Good Laboratory Practice and the Centre's analytical chemistry operations.
- **Danielle Rodrigue**—for her delivery of an expert report on a portion of the Pulp and Paper



Janet Fewster

Effluent Regulations, her contributions to the Method Development and Application Section programs and her work on the national laboratory accreditation program.

- **Daniel Wang** (absent)—for being a world leader in calibration and his work on volatile organic analysis.

An **Instant Award** was given to **Yvan Lafleur** (Wildlife Enforcement) for his inspiration and creation of identification guides for species protected by the CITES Convention.

Pacific and Yukon Region

In February, Simon Fraser University (SFU) in B.C. presented EC's **Robert Butler** (Head, Ecosystem Research, CWS) with their annual **Service to the Community Award**. Butler, an alumnus of the university, is an adjunct member of SFU's behavioural ecology research group and leads the SFU-centered Sand Piper migration project.

Human Resources

Hélène Desforges received a **Certificate of Recognition** for her work chairing a national, interdepartmental committee which successfully standardized compensation letters within the federal government.



Rhonda Arsenault

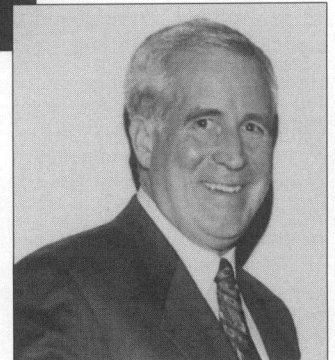
Hélène Desforges



Rhonda Arsenault

Human Resource Directorate staff presented **25-Year Service Awards** to (L-R): (back row) **Laurent Leblanc**, **Donald Goodine** (front row) **Melita Link** and **Danielle Corcoran**.

Gary Lewis received the 1998 **Award for Human Resources Leadership** for his leading role in key HR initiatives last year and his contributions to the HR Learning Forum.



Gary Lewis



Awards Awards Awards Awards



Rhonda Arsenault

Certificates of Excellence were awarded to the Corporate Human Resources and Informatics staff responsible for the successful implementation of Version 3.0 of the HR Management Information System (HRMIS). The new version allows for a central database which can capture HR information for all regions. L-R (back) **Guy Camiré, Brenda Deugo, Robert Graham, Christopher So, Ronald Duval, Michel Berthiaume, Serge Parisien**, (front) **Sylvie Brunette, Gisèle Parenteau, Anne Marcoux** and **Yves Mercier**. Absent: Marguerite Lafrenière.

External Recognition

The **Head of Public Service Award** recognizes employees who demonstrate excellence in meeting the challenges facing the Public Service of Canada. This inaugural year's award was presented to four EC employees/teams:



Rhonda Arsenault

Head of Public Service Award winners: L-R (back) **Len Good (host), Wayne Draper, Paula Caldwell St-Onge, Jean-François Bibeault, Marie-Josée Auclair, Alain Armellin, Pierre Mousseau, Serge Nadon**, (front) **Yolaine Saint-Jacques, Anne Jourdain, Guy Fortin** and **Marcel Houle** (absent: **Jean Burton** and **Nathalie Gratton**).

- the St. Lawrence Centre's **Priority Intervention Zone (PIZ) Working Group** (Quebec, ECB) for their exceptional contribution to the St. Lawrence Vision 2000 action plan;
- **Wayne Draper** (EPS) for his work in international environmental policy regarding air pollution control and prevention;

- **Serge Nadon**, (AES) as part of a Natural Resources Canada (NRCan) Fire Monitoring Team honoured for their work extracting and delivering forest fire information from satellite; and
- another NRCan working group, which included EC's **Paula Caldwell St-Onge** (EPS), for their role in designing and implementing a process for reviewing how environmental regulations affect mining in Canada.

The Hamilton Harbour Fish and Wildlife Habitat Restoration Project,

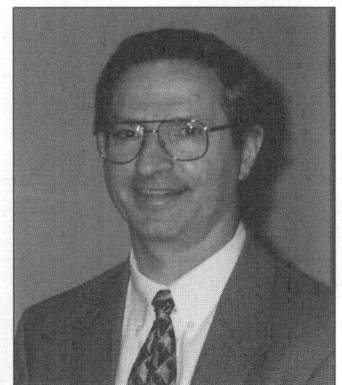
supported by EC's Great Lakes 2000 Cleanup Fund, is one of this year's winners of the Waterfront Center's **Waterfront Honors Award**. The Center, a non-profit organization based in Washington, D.C., hosts an annual awards program to recognize high-quality waterfront restoration worldwide. The Hamilton Project was recognized for its creation of successful habitats in areas deemed challenging for rehabilitation, as well as its impressive list of stakeholders.



Cliff Evanitski

(L-R) **John Shaw**, Manager (Great Lakes 2000 Cleanup Fund) and **Brenda Axon** (Watershed Planning Manager, Halton Region Conservation Authority) display the Waterfront Center's Honor Award recognizing the Cleanup Fund's contribution to the Hamilton Harbour Fish and Wildlife Habitat Restoration Project.

EC's **John Buccini** (EPS) has been garnering extensive recognition for his work as Chair of the United Nations Environment Programme's (UNEP) Intergovernmental Negotiating Committee on Persistent Organic Pollutants (POPs). Recently, UNEP Executive Director Klaus Töpfer was presented with a **soapstone carving** of a mother and child from the Inuit Circumpolar Conference as a symbol of the negotiation's true goals. Töpfer then turned the statue over to Buccini in appreciation of his outstanding work on the initiative. The piece is now the official POPs mascot.



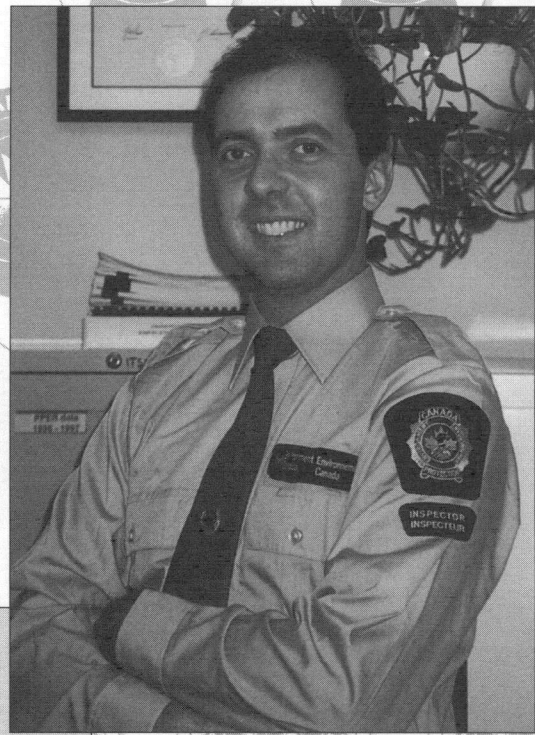
Rhonda Arsenault

John Buccini

Members of the EC chaired **Regional Environmental Emergencies Team** (REET) received a **plaque** applauding their efforts during the Swissair Flight 111 tragedy. The plaque, presented by Fisheries and Oceans, was in recognition of REET's selfless contribution to the search, rescue and recovery operations.



Ready to roll—Graham Ridley and Ray Lalonde, two of EC's Enforcement staff.
Prêts pour la patrouille—Graham Ridley et Ray Lalonde, deux membres du personnel de l'Application de la loi.

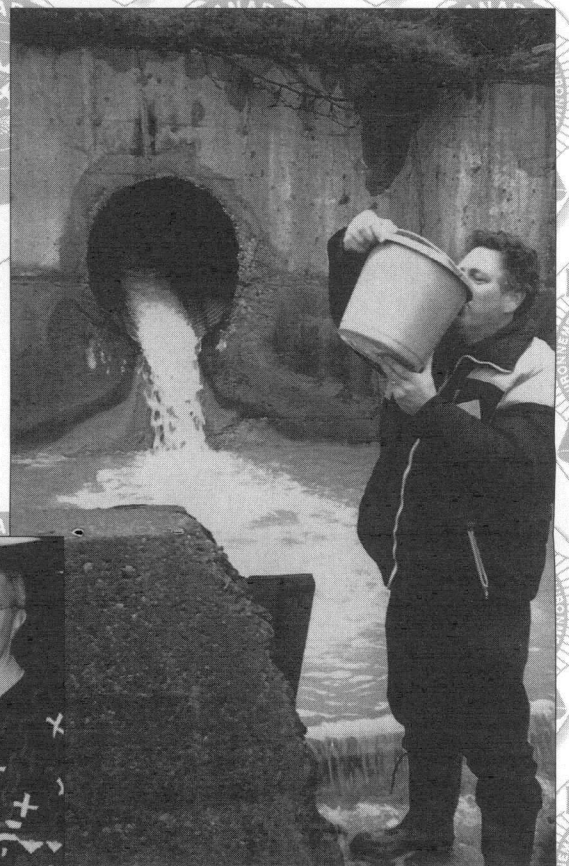


Mary Salmeria

Inspector Tony DeMarco, Emergencies & Enforcement Division, Ontario Region.
Tony DeMarco, Inspecteur, Division des urgences et de l'application de la loi.



The learning never stops—Ontario Region staff participate in an Enforcement course.
On ne cesse jamais d'apprendre—le personnel de la région de l'Ontario prend part à un cours sur l'application de la loi.



Hope those effluents passed the test! John Grieve takes his own kind of sample.
En espérant que ces effluents passeront le test! John Grieve a sa propre manière de recueillir des échantillons.



Carl Mordan examines substances at the water's edge.
Carl Mordan examine des substances au bord de l'eau.



Members of Ontario Region's Inspection and Technical Services Branch: (l-r) Gary Bruce, Carl Mordan, Paul Madore, Stewart Teasell and Mark Vanderlaan.
Les membres de la Direction des services d'inspections et techniques de la région de l'Ontario : (G-D) Gary Bruce, Carl Mordan, Paul Madore, Stewart Teasell et Mark Vanderlaan.



Laurie Thibeault

Preparing for the day ahead—Stewart Teasell, CEPA/Fisheries Act Inspector.
Se préparer pour une nouvelle journée qui commence—Stewart Teasell, inspecteur pour la LCPE et la Loi sur les pêches.

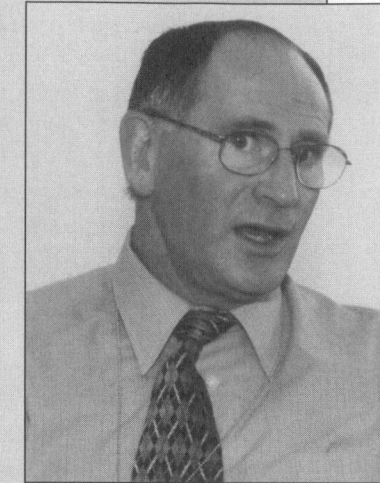
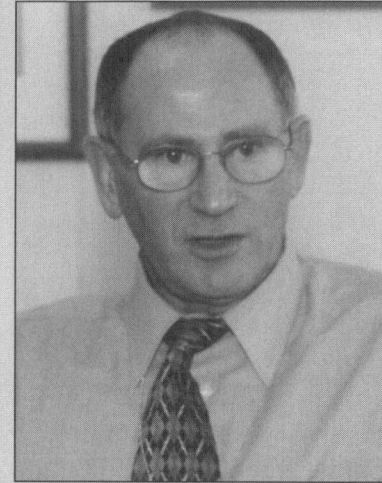
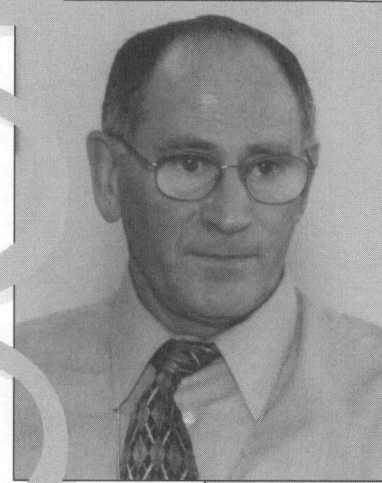


Robert Baxter and Ray Lalonde, off on another case.
Robert Baxter et Ray Lalonde...en route vers un autre cas.



Candidly Speaking...

Deputy Minister Len Good answers questions posed by staff members from across Canada. Following is an edited transcript of a December 1998 interview by Janet Fewster, Editor, Let's Talk Green.



Q It's quite rare for a DM to be assigned to a department that he or she has left. What made you decide to come back?

A: Even though I left Environment Canada, I continued to have a major interest in the environment. When I was at the World Bank I often focused on what the Bank was doing on environmental issues. I followed environmental issues fairly closely and never lost interest. When the opportunity came up to come back to Environment Canada, I must admit that it was my first choice.

Q What experience can you bring to Environment Canada from your time at the World Bank?

A: A lot. My first 21 years in government gave me an extraordinarily good idea of how developed countries like Canada and the United States see the world. However, you have to recognize that at least 75% of the world's people live in totally different circumstances and have totally different perspectives. There's a certain merit in the way they see the world. It becomes incredibly important, if you're going to make progress on anything global, to understand where that large part of the world is coming from and what their views are.

I travelled around the world while working at the World Bank and I met with everybody—prime ministers, cabinets, union people, and NGOs—in many developing countries. I now look at situations here in Canada quite differently than I ever would have before I went down to Washington. So for me it was an incredibly valuable experience.

Q What similarities and differences do you see in the Department since you were last here?

A: The major difference for me is that Parks is no longer here. That was almost half of Environment Canada and I think that was a significant loss to the Department. There was also a significant downsizing—a very painful experience that the Department has gone through in the last four years.

"I think [EC's]significance lies in what we show to Canadians in terms of environmental values and sustainable development. It's fundamentally about leadership and education."

When I came back to the Department I was surprised at how many people I still knew here. When you know people and have trust in them as I do, you start with a very high level of confidence. It lets you make decisions and do things that you might otherwise have concerns about.

Q In lieu of budget and staff cuts, do you see the role of Environment Canada changing?

A: The influence of Environment Canada is not determined by how many dollars we have to spend. Our influence will be determined by what kind of department we are seen to be and the kind of leadership we can show, at every level.

I think our significance lies in what we show to Canadians in terms of environmental values and sustainable development. It's fundamentally about leadership and education. It depends on co-operation and the partnerships we develop.

We shouldn't be discouraged by the fact that we now have fewer dollars. We can go a long way based on our strengths and ever-growing list of accomplishments.

Q Some feel that Environment Canada is turning into a policy shop with less 'hands-on' science work. Many scientists and researchers feel there is not enough money for research. Do you feel that that is a fair statement?

A: We are still a very heavily-weighted science department and I think it is the foundation of what we do. Having said that, the science gets reflected in many ways, from legislation and regulations to voluntary actions. We need it all.

As for whether or not we spend enough money for research, let me point out that last December the Minister announced a \$40 million research program for a number of vanguard areas, including endocrine disruptors research.

Q From your international experience, how do we compare to other countries? Is Canada seen as an environmental leader?

A: You know, we're extraordinarily well situated as a country. It's important that we think about our environment and take care of it. With 30-million people in a country this size we're very lucky. We have to protect what we have and there's a lot we have to do.

I think a lot of our contribution will be in the global context because our environmental security is threatened more by what happens outside our country than by what happens in it. We have to take care of the St. Lawrence, we have to take care of the Great Lakes, the Mackenzie, Georgian Bay and other ecosystems. We have to pay attention to our personal environmental behaviour.

Of course, within Canada, everything we want to do on endangered species, climate change, continental acid rain, persistent organic pollutants that flow across the world, ozone depletion, and other issues is critically important. But the truly global threats to the planet and to the species grow from climate change and ozone depletion. We have to work internationally as well as domestically.

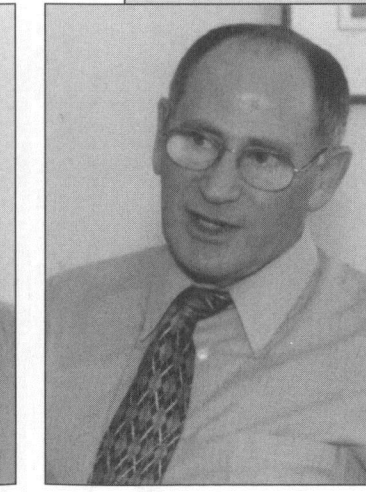
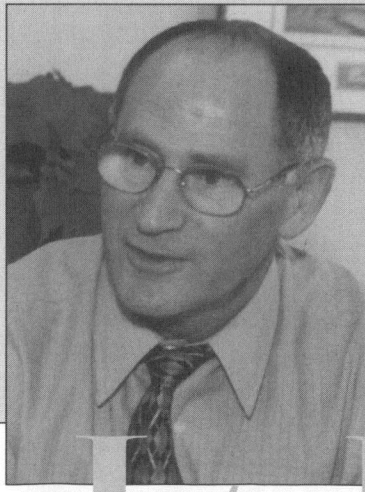
Q What is your opinion on EC's business lines?

A: We have a new management framework in the Department, which has four business lines—management administration and policy; weather and environmental prediction; nature; and clean environment—and they are each headed by an ADM. What they're going to permit us to do is pay attention vertically to what's going on across the Department, and the kinds of results we want to achieve. They are also ways of looking at some of the hard issues that cut across those business lines—things like science, human resources and enforcement.

We have a way of dealing with issues now that is much simpler and easy to understand.

One of the things it says to the ADMs is that they have a corporate departmental responsibility for providing leadership.

"One of the best ways to communicate is to sit down and talk to people, then... people will understand what you're trying to do and why."



Q Where do you see the Department in five years?

A: Increasingly we're stabilizing and are in a position to move forward. I want the Department to re-examine itself within a global context and identify the fundamental areas in which it can provide leadership.

I want everyone to see that big picture. I want staff to be able to go from that big picture to what they do and be able to say "I'm making my contribution towards that."

My philosophy has always been that we have to define the problem well before we can solve it. Then, once you define the problem, resolving it becomes relatively easy.

Q Poor communication and employee morale are subjects that repeatedly come up. What, in your opinion, can be done to improve this situation?

A: It's a good question and there's no easy, simple answer. You start slowly. I think senior management, including myself, has the responsibility to talk as much and as often as possible to people in the Department.

In terms of communications, it's done by whatever means we can. It's through interviews like this, e-mails, speeches, town hall meetings, live internet chats, the Green Lane and the Infolane that we get the information out. It's by communicating with each other that we start to understand where we want to go. There's not just one vehicle to use.

Q What ways, other than through e-mail messages, do you plan to communicate with employees?

A: One of the best ways to communicate is to sit down and talk to people, then you can get messages across.

People will understand what you're trying to do and why. I want to visit all the regions and talk to staff.

For example, I attended the Canadian Meteorological Centre meeting in Montreal to talk about future directions for Atmospheric Environment Program (AEP). Many people were not pleased about my decisions regarding AEP and we

had a dialogue there that was pretty direct. I explained the reasons for my decisions and it was a good exchange. It was difficult for me but extremely valuable. I learned a lot of things about the way the Department does and doesn't operate. My discussions with staff helped me identify issues that I have to deal with.

It's very much a circular flow of information that makes things work in the Department.

Q What was your most challenging job, or the one that you enjoyed most?

A: I'm not just saying this because I'm back in the Department of the Environment, but putting together and implementing the Green Plan was clearly the most enjoyable and rewarding experience I've had in my career in the public service.

Q What activities and hobbies interest you? Do you constantly work or do you have a life?

A: I'm really glad you asked that question. I'm absolutely not one in the workaholic category. I play squash once or twice a week, downhill ski, and golf whenever I can. In terms of moderately more intellectual pursuits, I like to play bridge and a bit of chess.

I think people have to look out for themselves. It drives me crazy when I hear about people working horrendous hours and feeling the stress and the impact of that on their health. It's so important to look after yourself. I've worked my share of weekends and nights, but, I grab some time when I can.

So, whatever your job may be, you have to come at it with the right attitude. Realize you can't always get everything done in a day—you've got to take some time out. Don't make a habit of missing your child's hockey or piano practice because you're too busy at work—year's later you'll say 'I made a very, very bad mistake'.

It's not a matter of giving up output from the Department. In the long-term, it actually will increase people's willingness to do things when they have to be done and to be in the right state of mind to do them well. The reality of operating that way, ends up with a departmental full of people who are happier and ultimately more productive.

Remember, you always have to keep things in perspective.

"Don't make a habit of missing your child's hockey or piano practice because you're too busy at work—year's later you'll say 'I made a very, very bad mistake'"

A chat with

LEN

LET'S

TALK