

RENEWING THE MINISTRY OF THE ENVIRONMENT

Submission by
the Ontario Public Service Employees Union (OPSEU)
to the Walkerton Inquiry,
The Honourable Justice Dennis R. O'Connor, Commissioner



On behalf of its members employed
at the Ministry of the Environment
May 1, 2001

EXECUTIVE SUMMARY: OPSEU RECOMMENDATIONS TO RENEW THE MINISTRY OF THE ENVIRONMENT

This report is the result of a process in which Ministry of the Environment (“the Ministry” or “MOE”) staff described their vision of how to renew the Ministry in order to prevent a repeat of the tragedy that claimed seven lives in Walkerton, Ontario in May 2000 when the town’s water supply was contaminated with E coli.

Ministry staff hope the information outlined in this report will be of assistance to Justice O’Connor when he writes his final report.

The Ministry’s Key Strengths and Weaknesses

Ministry staff participated in six workshops held by OPSEU in February and March 2001. Staff discussed the main strengths and weaknesses of the Ministry and made recommendations about how to address the weaknesses.

Strengths

Ministry staff understand that the Ministry’s role is to protect Ontario’s environment. Staff identified as strengths the Ministry’s area, district, and regional offices located across the province, and the laws and regulations that give staff their mandate.

In all six of the workshops, ministry staff stated consistently and powerfully that the main strength of the Ministry of the Environment is its dedicated, experienced and knowledgeable staff. Cutbacks have reduced their numbers by more than 40 per cent but MOE staff remain committed to the cause of protecting Ontario’s environment.

Weaknesses

Ministry staff also described the challenges they face every day. They illustrated the Ministry’s weaknesses by, among many other examples, describing how staffing cuts have limited their capacity to protect the environment. They also described how the Ministry squanders resources on avoidable crises because it will not develop preventive, proactive programs.

How stripped of resources is the Ministry? Examples raised at every workshop included: twenty-five-year-old lab equipment, poorly equipped field inspectors, teams that have to rent a truck before they can get to the site of a spill. More fundamentally, members described the loss of ‘human resources’ such as scientific expertise. Experienced staff retire without Ministry plans to transfer their knowledge to other staff or to hire new experts.

Ministry of the Environment staff want the Ontario public to know that the Ministry has been cut past the point where staff can effectively protect the environment. They work hard every day, but every day they know they don't have the resources they need.

Fixing the Weaknesses

This report sets out the following recommendations as the *minimum* requirements for a Ministry of the Environment that properly protects the public interest in a clean and healthy environment and safe drinking water.

These Recommendations recognize two fundamentally crucial elements of a system that protects both the natural water resource and the public drinking water supply:

- a) dedicated, knowledgeable people working with adequate resources to protect water resources and to inspect and enforce the proper maintenance and operation of the collection and delivery system; and
- b) adequate funding to maintain water infrastructure itself.

Ministry staff observe that both a) and b) are of equal importance regardless of how they are listed in the recommendations.

Overarching Recommendation

Ministry staff repeatedly observed that no agency, body or ministry other than the Ministry of the Environment is better situated to lead and take ultimate responsibility for the protection of Ontario's water resources now and in the future. This Ministry role is the overarching requirement for a water management regime that protects the intrinsic value of clean water as a natural resource and preserves the public interest in safe and clean drinking water.

Recommendation One

The Ministry of the Environment must hire sufficient staff to fulfill its mandate to protect the environment.

Recommendation Two

The Ministry of the Environment must enhance the knowledge and practical expertise of existing staff, and recruit additional skilled professionals.

Recommendation Three

The Ministry of the Environment must provide its staff with the necessary practical and legislative tools.

Recommendation Four

The Ministry of the Environment must become proactive, rather than reactive, and make use of staff expertise in policy and planning.

Recommendation Five

The Ministry of the Environment must provide adequately skilled staff and organizational support and ensure funding to build and maintain Ontario's drinking water infrastructure.

Conclusion

The recommendations in this report are offered to the Commission in the spirit of proud service to the public, with the conviction that we must learn from the tragedy and in the hope that we can move forward better prepared to protect the public interest in safe drinking water.

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PART ONE: MINISTRY OF THE ENVIRONMENT STAFF, OPSEU AND THIS REPORT

Who is OPSEU

1. The Ontario Public Service Employees Union (OPSEU) is a trade union with approximately 90,000 members. We represent employees who work directly for the provincial government. This is known as the Ontario Public Service. We also represent employees who work in the broader public service, (including funded agencies such as public health units and hospitals), community colleges and the private sector.
2. OPSEU represents all non-management and non-engineering staff at the Ministry of the Environment (MOE), or about 928 employees of a ministry total of 1,384. We also represent all non-management staff at the Ontario Clean Water Agency, or 563 employees of an agency total of 691.
3. OPSEU has a long standing commitment to participating in the public debate on public services.

Ministry of the Environment Staff Project Team

4. This report was directed by a project team of staff from the MOE, who worked long and tirelessly on behalf of their union, OPSEU, to put this report together. The project team members are:

Mike Bird, Investigations Officer
Tracey Boyd, Surface Water Technician
Rhéal Delaquis, Senior Environmental Officer
Mike Ladouceur, Air Scientist
Doug McDougall, Investigations Officer
Greg Powers, Groundwater Technician
Dallas Takeuchi, Dioxin Scientist
Bill Tobin, Inorganic Air Scientist

5. The contributions of Megan Park, Campaigns Officer and Timothy G.M. Hadwen, General Counsel, are gratefully acknowledged, as are the research and writing services provided to OPSEU by the Canadian Institute for Environmental Law and Policy. We also thank our facilitator, Bev Burke, for so ably facilitating the workshops.
6. The project team would like to give their heartfelt thanks to all staff at the Ministry of the Environment who contributed to this report. The information that OPSEU members brought forward give this report its authenticity and power.

Research method

7. The main source of information for this report is MOE staff. They participated in six workshops held by OPSEU in February and March 2001. Staff discussed the main strengths and weaknesses of the Ministry and made recommendations about how to address the weaknesses. The workshops were held in London, Hamilton, Kingston, Thunder Bay and in two locations in Toronto. The method followed for the workshops and a complete workshop summary report can be found in Appendix A to this report. Members who could not attend the workshops completed surveys, the summary report for which can be found in Appendix B to this report.

8. Other sources of information include interviews with staff and OPSEU surveys of staff in July 2000, December 2000 and February 2001.

Quotes are anonymous

9. The quotes cited in the report come directly and recently from OPSEU members, unless otherwise identified. The quotes are anonymous at the direct request of members. All other sources of information are referenced.

Focus is on water, but recommendations apply equally to other areas of the MOE

10. The focus of this report is on ensuring the future safety of drinking water in Ontario as per the mandate of the Walkerton Inquiry. However, Ministry staff have stated consistently that other areas of the natural environment, such as land and air, are equally under threat. The systemic problems at the Ministry highlighted in this report, such as lack of staffing, sufficient tools and information, equally apply to those other areas.

PART TWO: THE MINISTRY'S CENTRAL RESPONSIBILITY

The Ministry's Core Role in Water Management and Protection in the Province of Ontario

11. The Ministry's mandate "... is to protect the quality of the natural environment to safeguard the ecosystem and human health..."¹ This is from the Ministry's Statement of Environmental Values under the Environmental Bill of Rights (EBR). Furthermore, the MOE commits itself under the EBR to "... adopt an ecosystem approach to environmental protection and resource management."²

12. Ministry staff believe in this approach wholeheartedly. They believe the MOE must take an ecosystem approach to protect and manage Ontario's water resources and to ensure the delivery of safe drinking water. There must be a single public organization to lead the delivery of safe drinking water and the protection of water resources in Ontario. The Ministry of the Environment is the best candidate to undertake this duty.

13. The regulatory framework that protects Ontario's water supply must include consideration of the whole complex system. The MOE, more than any other agency, body or sector, has the mandate, experience and expertise to regulate, study, and communicate to protect and conserve our water resources.

14. There is no body in society other than government charged with and accountable for protection of the public good. The provincial government has a non-transferable responsibility for ensuring the health of Ontario's people and environment. The provincial government is responsible for ensuring the safety of Ontario's drinking water.

Central agencies and major sectoral ministries play key roles in national decision making. These agencies have the greatest influence on the form, character, and distribution of the impacts of economic activity on the environmental resources base. It is these agencies, through their policies and budgets, that determine whether the environmental resource base is enhanced or degraded and whether the planet will be able to support human and economic growth and change into the next century.³

¹ For the complete Statement of Environmental Values, see: http://www.ene.gov.on.ca/envision/env_reg/er/sevs/sa4e0001.htm

² Ibid.

³ The World Commission on Environment and Development (The Bruntland Commission), Our Common Future, (Oxford University Press, 1987), pp. 311-312.

15. Ministry staff believe that it's time for the provincial government to fully embrace this leadership role. It must take up this commitment to protect the needs of future generations. Checks and balances must be in place to objectively prove drinking water is safe now and will be safe for the future.

16. An ecosystem approach includes not only the mechanics of water delivery from "Source to Tap to Source." It also includes the legal framework and the people who are part of the process, from "Operators" to "Regulators" to "Consumers."

17. There are many steps involved in the delivery of safe drinking water and the conservation and protection of Ontario's water resources. There are also many competing and conflicting uses and stresses placed on water.

18. Within the regulatory framework that protects our water, there are three functional areas that best protect the public interest when kept in equal balance, and at sufficient capacity:

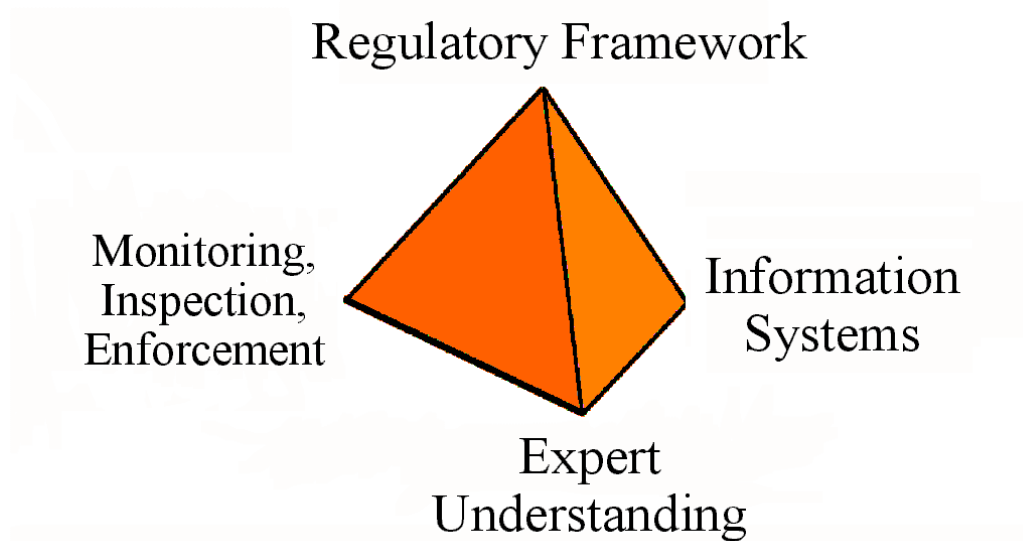
- **Field work, namely: Monitoring, Inspection, and Enforcement.** This functional area generates raw data for both ongoing studies and unpredictable emerging issues. This data must be collected and reported in an appropriate and timely manner, by qualified and trustworthy staff. Field work requires sufficient qualified staff to study, inspect, and collect evidence. External submissions must be verified and examined to ensure their content and accuracy. The testing and analytical components must be conducted in qualified laboratories, which must withstand scrutiny by qualified auditors of their methods and practices. Results must meet consistency and quality standards to provide a basis for comparison and analysis of cross-provincial data.
- **Understanding the system.** There must be sufficient expert knowledge of the processes and factors that can affect the system. Only public agencies can develop this expertise to work on behalf of the public without conflict of interest issues arising. This functional area compares and analyses monitoring data and "fills in the gaps". The goal is to convert "Data" into "Information" and then into "Knowledge" which can be used as the basis of policies, decisions, regulations, and long-term plans.
- **Information Systems.** Information must not only be produced, it must be effectively recorded, presented and shared. The public has every right to access the processes of its government and to have the opportunity to comment and question. Interested parties must be able to effectively share information and experience. Regulators must be able to analyze and report on their findings using the most current scientific methods and tools available.

19. Each functional area supports the others in an ecosystem approach. The regulatory framework provides the mandate and tools to protect the environment. Regulation and policy development requires understanding of the current state of the environment and expert consideration of potential future stresses that the environment will face. When there are offences against the environment, monitoring data provides legally defensible evidence to use before the courts, and it enables expert Ministry staff to be qualified to testify in a court of law. Finally, high-quality data that is also publicly accessible empowers people to keep watch in their own communities.

20. The current state of the environment can be understood only with appropriate field measurements taken at sufficient frequency at representative sites. This raw data requires an accredited, audited laboratory analysis.

21. Each facet depends on the others being present and effective. It is a holistic concept, with all areas relying on the proper workings of the rest.

22. The interplay of these factors can be visualized as a four-sided pyramid:



A Revitalized Ministry of the Environment

23. This image underlines a need for balance. If any one area is out of proportion with the others, the resulting structure will be unstable. In order for it to be a useful structure, it must be large enough to contain all of the objects it houses. It is crucially important to collaborate and work closely with other participants in the system but the system must

have a robust core and must be able to stand independently. This visual representation translates into reality by having sufficient qualified staff, adequate material resources, clear legal authority, and the will to effectively deliver the mandate within the Ministry of the Environment.

24. OPSEU's MOE members contend that a revitalized Ministry of the Environment, sufficiently staffed and equipped can effectively lead the delivery of safe drinking water and the protection of water resources in Ontario. OPSEU members have produced recommendations and suggestions with this revitalization in mind.

25. No one should be afraid to drink the water in Ontario. OPSEU members are committed to the delivery of safe drinking water, both as concerned professionals and as public servants.

Set up of the Ministry of the Environment

26. The Ministry of the Environment was established in 1972 as the result of an increasing public interest in safeguarding the environment. It absorbed the former Ontario Water Resources Commission which built and operated water and sewage plants across the province. In 1993, the operation side of the Ministry was severed and became a new agency, the Ontario Clean Water Agency.

27. The first contact most members of the public have with the MOE is with the Ministry's district, area and regional offices. Currently, 22 area and district offices report to five regional offices located across Ontario. They make up what's known as the Operations Division of the Ministry. The Investigations and Enforcement Branch, the Environmental Assessment and Approvals Branch, the Environmental SWAT Team and the Spills Action Centre are also part of Operations Division.

28. Environmental Officers, Investigation Officers and administrative staff are located in both the district and regional offices. Technical Support staff, for the most part, can only be found in the regional offices.

29. Environmental Officers (EOs) in the Abatement Section are responsible for ensuring that Ontario's environmental laws are complied with. EOs are also referred to as abatement officers, abatement staff or field staff. They are considered the front-line staff of the Ministry.

30. In addition to a heavy workload of assigned duties, such as carrying out inspections of sewage and water treatment plants, EOs must respond to and follow up on all calls and complaints of environmental violations coming into their office. EOs investigate all complaints and therefore are responsible for collecting evidence that will assist the Investigations and Enforcement Branch.

31. For example, if there is a spill, EOs are responsible for ensuring that the person responsible takes appropriate action to clean up and restore the damaged area. This will require the EO to make an assessment and take follow-up action to ensure the clean-up was carried out as ordered.

32. Investigation Officers (also referred to as “Investigators”) in the Investigations and Enforcement Branch (IEB) are responsible for following up on violations reported by EOs, as well as responding to complaints by the public. They also follow up on violations they find through their proactive work. Investigation Officers are responsible for collecting the evidence, laying the charge and for putting the case together for prosecution in the courts.

33. The Ministry established this year the Environmental SWAT Team to target and crack down on deliberate and repeat polluters. SWAT is located in the Toronto area and is staffed by Abatement EOs and Investigation Officers.

34. EOs and Investigations Officers rely on the scientific and technical expertise of staff in the Technical Support Section. The Water Resources Unit of Technical Support is comprised of hydrogeologists, biologists, hydrologists, and environmental officers that specialize in water resource issues. Other members of the Technical Support section that deal with water issues include environmental planners and pesticide officers. These specialized staff are located, for the most part, only in the five regional offices.

35. EOs and Investigations Officers also rely on scientific expertise found in the Ministry’s Environmental Sciences and Standards Division (ESSD). Laboratory technologists and scientists at the sole surviving MOE lab at 125 Resources Road in Toronto analyze water samples sent in by EOs and Technical Support staff. Lab staff also devise tests to detect and measure new chemicals.

36. Also from ESSD are drinking water treatment specialists in the drinking water, waste water and watershed standards section. They provide technical advice to EOs, municipalities and consultants about appropriate treatment technology.

37. Drinking Water Specialists in the Drinking Water Surveillance Program in ESSD gather data about municipal water supplies. DWSP monitors and evaluates the quality of drinking water at 175 municipal water supplies.

38. Technical Support staff in the Environmental Monitoring and Reporting Branch are involved in monitoring the “state of the environment.” They track and analyze such things as the water quality of the Great Lakes and conduct complex investigations into water and sediment quality, among other things.

39. Environmental Officers in the Spills Action Centre (SAC) in Toronto are the communications hub through which spills are reported. The SAC operates 24 hours a day. EOs at SAC contact the appropriate authorities, including the MOE district office closest to the spill so that immediate action can be taken.

40. Policy and planning in the Ministry is spearheaded by the Integrated Environmental Planning Division. Policy and planning as they relate to the field are done out of the Assistant Director's Office of each of the five regional offices. Fiscal planning is the responsibility of the Corporate Management Division.

41. Ontario's water supply is mainly protected through four laws: the *Ontario Water Resources Act* (OWRA), the *Environmental Protection Act* (EPA), the *Environmental Assessment Act* (EAA) and the *Pesticides Act* (PA). The Drinking Water Protection Regulation, O. Regulation 459/00, from August 2000 is part of the OWRA. This regulation makes law the set of guidelines known as the Ontario Drinking Water Objectives.

42. A Certificate of Approval (C of A) and a Permit To Take Water (PTTW) are two types of legal instruments that the Ministry issues under its legislation. These two terms are used frequently in this paper.

43. A C of A is a kind of permit that provides the applicant with an approval for varied activities. The MOE issues Cs of A for air, water, sewage, landfill, PCB storage, and pesticides. The C of A identifies conditions that the applicant must meet.

44. In terms of drinking water, municipalities requires Cs of A for their water works. The C of A is for the building, the treatment process and the pipes in the ground. A typical C of A would include conditions for sampling, when the reports should be submitted, among other things.

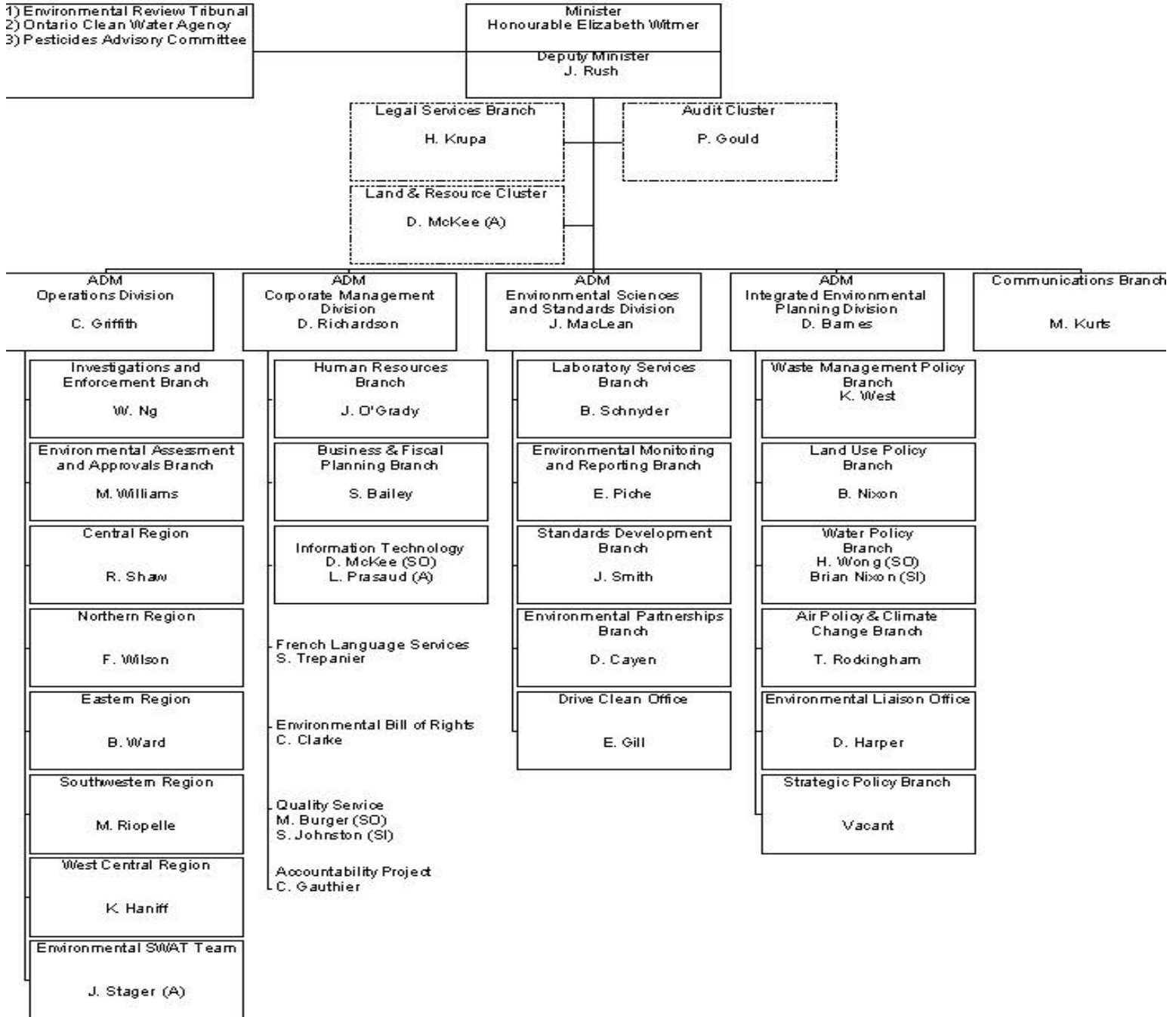
45. If the municipality's water works is going to take more than 50,000 litres of water per day from either ground or surface water, then it requires a Permit To Take Water. The PTTW should contain conditions requiring the permit holder to monitor volumes taken and impacts on the resource, such as well water levels and stream flows.

46. The Environmental Assessment and Approvals Branch co-ordinates the review of applications for Cs of A. The Branch sends them to the appropriate regional and district office for review. The Branch then gives the approval and issues the C of A.

47. PTTWs are reviewed by regional Technical Support staff and issued by the regional office.

48. The following organizational chart summarizes the MOE's structure⁴:

MINISTRY OF THE ENVIRONMENT
(Current)



⁴MOE Organizational chart, MOE intranet site

PART THREE: RECOMMENDATIONS TO ENSURE THE MINISTRY CAN FULFILL ITS RESPONSIBILITY

49. In order to achieve an ecosystem approach to the protection and management of water resources in Ontario, OPSEU's recommendations describe the minimum requirements that must be in place.

Recommendation One: The Ministry of the Environment must hire sufficient staff to fulfill its mandate to protect the environment.

Current Situation

Cuts to staff since 1994

50. In 1994, the Ministry of the Environment had approximately 2430 staff.⁵ As of December 31, 1999, less than six months before the Walkerton tragedy, the Ministry had 1277 staff.⁶

51. The Ministry achieved its staff reductions by a variety of means including offering early retirement, eliminating positions through attrition and layoffs. The major changes came with two 'surplusing' phases, one in May 1996 and another in January 1997 when 752 positions were eliminated.⁷

52. The district office in Gravenhurst was closed and the work was transferred to the Barrie and Peterborough district offices. Sub-offices in Pembroke and Parry Sound were closed.⁸

⁵ Winfield, Mark and Greg Jenish. Ontario's Environment and the "Common Sense Revolution" (Toronto: The Canadian Institute for Environmental Law and Policy, 1996) at 2. In describing the 'surplusing' initiative, the report states, "Seven hundred and fifty-two staff are to be eliminated from the Ministry's total complement of 2,340 (31%)."

⁶ This figure is reported in Clark, Karen and James Yacoumidis. Ontario's Environment and the Common Sense Revolution: A Fifth Year Report (Toronto: The Canadian Institute for Environmental Law and Policy, 2000) at 8. These figures and all staff allocation figures cited in all CIELAP reports come from Ministry responses to CIELAP Freedom of Information requests under the Ontario *Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. F-31

⁷ See documents on file at OPSEU: Memorandum to All Staff of Operations Division from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated May 22, 1996 for announcement of first phase of the savings as outlined in the ministry's business plan, including the elimination, Ministry-wide of 752 positions. See Memorandum to All Staff from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated January 14, 1997 for announcements of reductions in District Offices from 22 to 15 and for description of staff reductions – in Operations Division only – of 279 positions.

⁸ Memorandum to All Staff from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated January 14, 1997.

53. Six district offices were downgraded to area offices: Sault Ste. Marie, North Bay, Kenora, Cornwall, Owen Sound and Windsor. They were twinned with the remaining district offices. For example, Owen Sound was twinned with the Barrie district office.⁹

54. Each area office kept their district supervisors, but their district manager positions were eliminated. Area offices now shared a district manager with their twin district. This resulted in overloaded district supervisors with significant work pressures. District managers had to spend more time commuting between twin districts and less time participating in the resolution of significant environmental issues.

55. The north east (Sudbury) and northwest (Thunder Bay) regional offices were amalgamated with the result that Northern Ontario has one regional office based in Thunder Bay. A skeleton crew of regional staff remained in Sudbury, now a district office.¹⁰

56. The Investigations and Enforcement Branch (IEB) was restructured. The regional supervisor positions were eliminated and IEB became centrally managed.¹¹ A number of administrative positions were eliminated.

57. The result of the closures and restructuring was layoffs among abatement, technical support, junior investigators, management and administrative staff. Fewer abatement staff were available to respond to pollution incidents, fewer technical support staff were available to offer their expertise, and travel time for field response increased. Fewer administrative staff meant that paperwork was offloaded to remaining staff.

58. Most crucially, the three regional MOE labs in London, Kingston and Thunder Bay were closed in 1996.¹² Scientific staff, including microbiologists and lab technologists, were laid off. Municipalities could no longer have their water samples analyzed by the labs and Environmental Officers could no longer consult lab staff for their scientific expertise.

59. In January 1997, the Ministry's position on the effects of surplus was that it was not so much "reducing environmental protection activities" as it was "making [its] approach to environmental protection more effective and efficient."¹³ The Ministry stated that one of the ways it would become more effective and efficient would be to establish a "Strategic and Tactical Research Unit" to prioritize field inspections and to work on special projects and inter-jurisdictional coordination.¹⁴

⁹ Ibid.

¹⁰ Memorandum to All Staff of Operations Division from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated May 22, 1996.

¹¹ Memorandum to All Staff from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated January 14, 1997.

¹² Memorandum to All Staff of Operations Division from Sheila N. Willis, Assistant Deputy Minister, Operations Division dated May 22, 1996.

¹³ See document, "Ministry of Environmental and Energy Phase II Business Plan Reductions, January 14, 1997" on file at OPSEU at page 4.

¹⁴ Ibid.

60. The Ministry established the Strategic and Tactical Research Unit, but it seems to have been a very modest operation. Currently, it only has two positions assigned to it.¹⁵ Nor by any account did it make the MOE's approach more effective or efficient.

61. The Ministry did, however, through staff and budget reductions, severely reduce its environmental protection activities.¹⁶ By early 1997, news reports charged that Ontario was no longer enforcing its laws to the degree it had in the past.¹⁷ Fines obtained in 1996 against corporate defendants dropped between 1995 and 1996 from \$1,845,279 to \$750,535¹⁸, did significantly recover in more recent years (total fines against corporate defendants in 1998 were \$622,325) and have only seen increases post-Walkerton as the government scrambles to repair its image.¹⁹

62. Declines in the number of enforcement activities such as investigations, charges laid and number of fines – shown in the chart below – reveal a marked loss of capacity within the ministry.²⁰

Activity	1991	1993	1995	1998
Investigations	1596	1605	1372	1046
Charges Laid	1896	1570	1045	805
No. of Fines	674	464	387	391

63. There has been a reduction as well in environmental assessment hearings (only two since the *Environmental Assessment Act* was amended in 1997; none in the province in more than three years).²¹

64. In order to deal with its responsibilities with far fewer staff, the Ministry produced two priority-setting documents. They were the Procedures for Responding to Pollution Incident Reports, issued in August 1997 and the Delivery Strategies, issued in finalized form in January 1998.

65. These two documents guide staff as to which issues are priorities and which issues are not and should therefore be dealt with by another authority or level of government

¹⁵ Walkerton Inquiry, Julian Wieder testimony, April 24, p. 163.

¹⁶ Winfield and Jenish, 1996, at 7. The authors compared annual figures for 1995 and incomplete figures for 1996.

¹⁷ See, among others, Guy Crittenden, "Reaping What We Sow," in *Hazardous Materials Management* April/May 1997 at 6; and Martin Mittelstaedt, "Ontario pollution fines plunge," in *The Globe & Mail*, January 10, 1997 at A6.

¹⁸ *Per* Freedom of Information request from the Canadian Environmental Law Association to the Ministry of Environment and Energy; letter from the Ministry of the Environment to the Canadian Environmental Law Association dated June 26, 1997 on file at the Canadian Institute for Environmental Law and Policy.

¹⁹ Tories Trumpet Pollution Fines, *The Toronto Star*, Saturday, December 30, 2000.

²⁰ Ministry of the Environment Investigations and Enforcement Branch, Annual Enforcement Summary, Calendar Years 1991 – 1998, on file at OPSEU.

²¹ The Investigation and Enforcement Branch Annual Enforcement Summary for Calendar Years 1991-1998 show significant reductions as well in, among other activities, investigations, prosecutions initiated, charges laid and number of fines.

such as municipalities. The Delivery Strategies are also widely seen as an attempt by the Ministry to provide itself with a legal defense against charges of regulatory negligence.

Overwhelming workload

66. The number one challenge Ministry staff face is an overwhelming workload.

There are not enough staff to do all of the work that we are expected to do. Field staff are tied down to the office too much, answering letters, inquiries, doing reports etc. All of which might have to be done but you can only do so much in one day. When we do go out and do a lot of inspections in a day, there is a lot of paperwork to be done.

Look at the piles of work on my desk, it just keeps coming in faster than I can do it. I can't keep up by working late. I'm not even keeping my head above water. I need a snorkel! And there is always the worry that if I don't do something am I going to get sued? Staff are taking the "80" [early pension] just to get out. If the work atmosphere was better, maybe they would stay on.

Less staff means less testing, fewer reviews, more cracks in the system

67. Staff reductions have left too few people to keep up with the day-to-day business of the Ministry. The crucial point is that the Ministry's "day-to-day" work is fundamental to environmental protection. Surveys, inspections, samples, tests, reviews of monitoring reports of Certificates of Approval, among other things, are the means by which the Ministry keeps tabs with the health of the province's air, water and soil. In other words, the Ministry knows a lot less now than it did in 1994 about the health of Ontario's environment.

The amount of field work has been slashed. I haven't taken a [field] sample in three years. The awareness of what's happening in different places really starts to slide when staff don't go into the field.

The loss of local labs has affected how frequently we sample. We don't take as many samples as we used to because we know the lab can't handle them.

Monitoring reports of Certificates of Approval are not being reviewed on a timely basis, due to staff shortages and less availability of technical expertise. These reports are to be submitted each year, but due to shortage of staff in the Technical

Support Sections of each region, they do not always get reviewed annually. As a result, some reports wait for as long as three years to be reviewed. ... If the reports are not reviewed on time, there is no way for the Ministry to determine the extent of potential impact to the environment (groundwater, surface water) as a result of the leachate coming from the landfill.

Before 1996, MOE Regional Operations offices conducted water quality surveys of watercourses using biological and bacteriological methods. Most countries around the world conduct biological water quality surveys to protect water resources. The downsizing activity ended this assessment approach: the labs were closed, collecting equipment was sold or destroyed, staff were surplused, remaining staff were restricted from field activities. ... The water quality surveys identified the potential lethal links between agriculture/industrial development and drinking water supply/ecosystem health. The water quality survey of a river close to Walkerton was conducted in 1973 and again in 1986 and was due to be conducted again in 1996-98. This never happened. As a consequence, the MOE was blind to any activities that threatened the water supply or health of the river.

Environmental protections services in Northern Ontario (from Parry Sound north) were reduced from two complete Regional Offices (Northeast – Sudbury and Northwest – Thunder Bay) to one northern region office in Thunder Bay, with a skeleton crew of regional staff remaining in Sudbury. This resulted in less air, water, pesticides, approvals, environmental assessment and planning expertise support available to district staff. Some program responsibilities (ie pesticides, hazardous waste) were transferred to district staff with no increase in staff levels. Due to geographical expanses, water experts are not able to conduct field inspections and assessments nor respond to spills as expediently or efficiently as in the past. Computer systems and policy/issues staff (Assistant Director's Office) were also reduced and remaining staff reside in Thunder Bay, resulting in reduced service support and additional computer downtime.

Low morale

68. Workloads that keep rising, combined with a lack of direction from management has contributed to plummeting morale in the Ministry.

MOE staff grew up wanting to protect and save the environment...We went to school to learn about the environment

and looked for jobs where we could make a difference. What better place to be than the MOE? I am frustrated. I'm supposed to be protecting the environment, but I'm being told it's not our responsibility or it's not significant. We don't have the resources or the political support to allow us to protect the environment. That's what we're supposed to be doing. I do not believe I am alone in these thoughts. It is a struggle every day.

A single project or emergency can use up a whole year's resources

69. There are annual allocations, called 'lab allocations' for how many lab tests a region can submit. A disaster, such as the Plastimet Fire in Hamilton in 1997, can use up a region's whole allocation. As well, day-to-day demand for lab services is increasing. The Ministry lab work plan shows increases in the demand for general chemistry and microbiology tests between 1998 and 2001,²² and dioxin testing exceeded allocations for 1999/00 by 32 per cent.²³

As an example of how an annual allocation can disappear on one project, in mid 1991, as part of a general audit of the wood preserving industry, Environment Canada conducted a soils sampling program at a facility in southwestern Ontario and asked the Ministry of the Environment's Phytotoxicology Section to participate. On April 7, 1992 the Phytotoxicology Section released the results. One sample analyzed for dioxin had a concentration of 110 ppb of 2,3,7,8 tetrachloro-dibenzo-p-dioxin. Because this high concentration was of concern, the Ministry conducted additional analyses both on and off the property. The thirty samples sent to the provincial lab by West Central Region used up the region's entire annual allocation of 25 dioxin samples.

70. The workload in the provincial lab grows every year, and demand leapt dramatically in June 2000 just after the Walkerton tragedy became news.²⁴ In June 1998 and 1999, the provincial lab performed 297 and 385 microbial tests, respectively.²⁵ In June 2000, the lab performed 2,826 microbial tests, almost a ten-fold increase since 1998.²⁶ The need for high quality sampling from an objective and highly qualified source is clear. What is less clear is how the lab can continue, short of staff and other key resources, to provide this necessary public service.

²² Ministry of the Environment, Yearly Workload Comparison, General Chemistry and Microbiology, as of end of February, 2001

²³ Ministry of the Environment, Dioxin Laboratory Workloads 1999/00 (Revised April 3, 2000).

²⁴ Ministry of The Environment, Laboratory Yearly Workload Comparison 1998 to 2001.

²⁵ Ibid.

²⁶ Ibid.

Less staff means legislated performance targets cannot be met

71. The Ministry has recently responded to public concerns arising from the Walkerton Tragedy and other environmental problems by enacting a few new laws and regulations. For example, over the past couple of years, the province has enacted regulations restricting groundwater taking and bulk water exports from the Great Lakes,²⁷ a new drinking water safety regulation²⁸ and has proposed a regime regulating intensive agricultural operations in rural Ontario²⁹ (although a Bill for this initiative still has not been tabled). However – while increasing somewhat with the announcement of the high-profile SWAT Team initiative³⁰ and recent hires to add numbers to water treatment plant inspectors – staff numbers have not risen enough to meet the demand of properly enforcing existing and new laws. The result is paper protection of Ontario’s resources – laws on the books, but too few people to ensure they are enforced.

According to the new regulation, Water Treatment Plants are supposed to be inspected every year. A district in southwestern Ontario has 54 or 56 water plants to inspect and there is only one field staff to do it. It is possible to do one inspection per week but then there is follow-up, reports, paperwork. If things are good, he can do it. If not, it will take a lot longer. ...

Staff allocations are not according to regional needs

72. Current policies allocate roughly the same number of certain kinds of staff to each region no matter what the specific characteristics of the regional ecosystem. All regions are working with too few staff; some are even more challenged by the needs of their location.

A rigid [staffing] template gives equal numbers to all regions. However, in Eastern Ontario we have more wells than all the other regions put together with highly vulnerable aquifers and yet we have the same [staff allocation to] ground water resources as the other regions.

Working short-staffed, OPSEU members feel pressured to rush their work

73. Ministry staff are professionals who take their work seriously. They also understand that their work is crucial to the protection of Ontario’s environment.

²⁷ O.Reg 285/99.

²⁸ O.Reg. 459/00

²⁹ See Environmental Bill of Rights Registry Notice Number: TC00E0001

³⁰ First described in the Conservative party’s 1999 election campaign, the SWAT team started operations in late 2000. See Dec 29, 2000 Ministry press release at <http://www.ene.gov.on.ca/envision/news/0089.htm>.

Pressure to get the work done fast is unacceptable. The work of the hydrogeologist is assessment work on land use proposals, and contaminated site clean-up. We have to assess and make recommendations that are reasonable, thorough, and professional. It takes time to evaluate a project and write it up properly, especially when it might end up in court.

Less staff equals less enforcement, equals less environmental protection

74. Lack of staff resources has a direct impact on enforcement activities. Limited resources means that, even though violations may number in the thousands, only a few will be pursued; even less will result in a prosecution. A recent report from the Sierra Legal Defense Fund³¹, describing how literally thousands of pollution offences are not prosecuted, illustrates what OPSEU members have known for years:

We can only pick our battles to the detriment of all the other violations we find. In 1998, in Sudbury/Thunder Bay there were between 800 and 900 occurrences per year. Of those occurrences, only 3 *per cent* went to Investigations and Enforcement Branch.

75. This report discusses other barriers to enforcement in Recommendations Two and Three.

A lot less staff: a lot more paperwork

76. As short-handed as the Ministry is, and as much work as there is to do in the field, Ministry staff have to deal with a tremendous amount of paperwork. A common expression among abatement staff is “we’re counting what we do, instead of doing what counts.”

Count the forms. We have STAR, ORIS, ETIS, EDRIS, IIS, IDS, MIDES, SDRS. Each one of these forms takes time to fill in. They are not connected, but they use a lot of the same data, so the information has to be input over and over again. Each has its own password and log in and we all enter our own data. This is very inefficient and takes away from time we should be spending in the field.

Let me get out in the field, instead of in front of a computer, counting beans.

³¹ Sierra Legal Defence Fund. Who’s Watching Our Waters? (Toronto: SLDF, undated, 1999?)

An example of what an inspection takes, in terms of time and paperwork

77. The following is a table showing the estimated time required to perform a water works compliance inspection. Generally, the time required to do an inspection depends on the size of the facility. Facilities range from small (a single well with disinfection and distribution) to large systems (several wells or a surface water supply that requires several treatment processes before the water is disinfected and distributed).

Activity	Small Facility	Large Facility
File review	0.25 days	0.5 days
Site Sampling - Raw Water - Treated water at plant - Distribution System	0.15 days 0.1 days 0.2 days	0.15 days 0.15 days 0.70 days
Sample preparation for lab analysis	0.25 days	0.5 days
Data Review - In-plant data - Inspection samples	0.5 days 0.25 days	1.0 days 0.25 days
Inspection of Site infrastructure	0.5 days	1.0 days
Preparation of Site Inspection Report	1 days	2 to 2.5 days
Total Before Follow Up	3.25 days	6.25 to 6.75 days
Follow up inspection - Preparation and issuance of Provincial Officer Order - Progress review of Order - Progress review of recommendations	0.5 days 1 to 5 days 1 to 2 days	1 day 1 to 5 days 3 to 5 days
Total Follow Up Time	2.5 to 7.5 days	5 to 11 days
Total Days Required	5.75 to 12.75 days	11.75 to 20.25 days

78. This chart shows that follow up action requires almost as much and sometimes more time than the actual inspection. However, Ministry annual work plans do not specifically include the time required to do follow up. Instead, time for follow-up work is included in each inspector's allocation for 'reactive work.'

79. To understand what this means in terms of staff capacity, the Table in Appendix B shows all the work plan programs and associated activities an Environmental Officer (EO) is responsible to administer. There are approximately 15 programs and 200 associated activities. 44 person days of an EO's time is allocated to work plan program inspections. The remainder of the time (176 person days) is supposed to be used to address all other program activities. This includes, to name only a few, responding to spills, responding to complaints, providing outreach services and following up on compliance inspection recommendations. This means that, if an inspector is to follow up on inspections, a large portion of the rest of the work does not get done. As is most commonly the case, the inspector does all he or she can do to ensure other program work is addressed, and, in almost all cases, inspection follow-up work suffers.

80. To properly document all the information collected during the day-to-day work on any of the 200 program activities and/or inspections, an inspector must enter information into one of several databases. The databases that each inspector is required to input data are:

- STAR (System for tracking activities and resources)
- ORIS (Occurrence Reporting information system)
- IIS (Interim Inspection system)
- EDRIS (Environmental Discharge Reporting information system)
- ETIS (Enforcement Tracking Information System. This stems from ORIS and is only handled by IEB)
- IDS (Integrated Data System)
- MIDES (Municipal Industrial Discharge Entry System)

81. For one activity an EO will be required to update several databases at a time. For example if a Water Treatment Plant is inspected and the facility has a backwash water discharge into a receiving stream the inspector would have to input and review data in all the following databases in order to complete his or her inspection.

- STAR data entry keeps track of time as the inspection proceeds as well as holds notes about the inspection recorded by the inspector;
- The officer will also be required to input data in ORIS if violations were noticed during the inspection;
- input data to EDRIS (online intranet system) if the discharge of from the backwash water did not meet criteria; and
- complete the IIS report (online intranet system).

82. An inspector will spend three to five per cent of his or her time to input data in STAR and will require two to three days to input data in the IIS for each facility inspected. Each violation has to be entered separately on EDRIS and ORIS and each entry can take from 15 to 20 minutes for each database.

83. Consistently throughout the workshops held to gather information for this report, Ministry staff observed that the paperwork was excessive, emphasized quantity (number of inspections) over quality (thoroughness and completeness of inspections) and that it reduced the amount of time available to officers to work in the field. Staff referred frequently to the Ministry's emphasis on "counting beans". An Integrated Data System (IDS) has long been promised to staff by the Ministry, but is not available. Work plans, however, appear to assume that IDS is in place.

**Another way protecting the environment properly overwhelms staff:
Permits To Take Water**

84. The following is an example of how the Ministry response to a pressing environmental problem creates a tremendous burden for regional staff.

1998 and 1999 saw below normal levels of precipitation in southern Ontario, reducing volumes of water in aquifers and rivers. Some rivers, such as Spencer Creek near Hamilton actually ran dry. Another river in the same region, Big Creek, lost so much water it could not provide adequate assimilative capacity for sewage discharges, which hurt fish populations. There was also an increased demand on water resources for irrigation. The Ministry tried to balance all of these competing water uses and soon discovered that it had no record of either how much water was available or who was already using it. To capture information about current agricultural users, the Ministry offered a year's amnesty if agricultural users applied for a Permit to Take Water under section 34 of the *Ontario Water Resources Act*. While this effort helped the Ministry understand better than it did water demand in the region, it now has a workload problem. Surface water permits need to be renewed every five years; groundwater, every ten. More than 1000 permits, surface and groundwater were issued in the Ministry initiative. That means at least 400 permits will be renewed in 2005, and all thousand plus of them will be renewed in 2010.

85. The Ministry is divided into five regions, which are more-or-less identically staffed. In 2000, the number of Permits To Take Water (PTTW) issued by the five regions were as follows:

Central	51
Eastern	152
Northern	110
South West	410
West Central	1082

86. West Central Region which, in an effort to manage the drought of 1998-99, issued nearly 60 *per cent* of the PTTWs in the Province in 2000 has the same staff complement as those regions whose permit workload is only 3 per cent to 23 per cent of the Provincial workload. Five and ten years from now, when the permits will need to be reviewed, regional staff responsible for the review will be swamped.

To Fix the Current Situation

Increase staff complement

87. As an absolute minimum, the Ministry of the Environment should have sufficient staff to ensure that the standards of inspection and enforcement set out in Ontario law are met. As this is not currently the situation, the Ministry must hire enough of the following staff to achieve this minimum goal:

- Environmental (abatement) Officers
- Investigation Officers
- Technical Support Staff/Scientific Staff
- Laboratory Staff
- Administrative Staff

88. The Ministry needs the proper staff to do the job. Protecting the environment takes time and money. The Ministry of the Environment should be required to develop detailed staffing plans which demonstrate how every important function is to be actually carried out. Those plans should be tabled and subject to discussion with Ministry staff and the public.

Administrative staff

89. Abatement and investigations staff require administrative support so that they can spend less time filling out forms at their desk and more time protecting Ontario's environment.

Staff allocations must reflect regional needs

90. In order to ensure staff allocations are adequate, the Ministry must end 'template' staffing and assign resources to meet the needs of each region.

The Ministry's job is to protect the environment

91. To properly protect the public interest in a clean environment and safe drinking water, the Ministry must support and maintain an 'enforcement philosophy.' The Ministry is a regulatory agency. That is its function, and the role the public expects it to take. It is also the role Ministry staff expect to be able to take to do their jobs.

Reduce paperwork

92. The current load of paperwork detracts from, rather than enhancing, environmental protection and turns protecting the public interest into a numbers game. Fewer forms would 'count' ministry activities just as well as numerous forms do now. Fewer forms to fill out would give Ministry staff more time to work in the field.

Staffing is not just a numbers game

93. As of June 30, 2000, the Ministry staff population is 1,384,³² still far short of 1994 levels, but also less experienced and less scientifically expert. Recent hires to increase water treatment plant inspection – 25 junior Environmental Officers were added to the Ministry complement – only improve the quantity of staff. The inexperience and limited training of the new EO2's means the Ministry remains under-resourced.

³² OPSEU, Ministry of the Environment, Bargaining Unit Profile, June 30, 2000.

Recommendation Two: The Ministry of the Environment must enhance the knowledge and practical expertise of existing staff, and recruit additional skilled professionals.

Current Situation

The Ministry still sets standards of quality and expertise

94. The Ministry of the Environment still has some of the world's best water scientists on its staff.

There is still in the MOE a strong historical knowledge base around water. Some staff have worldwide reputations in their field. Many MOE staff put in a lot of unclaimed overtime. We have staff who spend time out in the field where the problems are happening and can provide first hand information on what's going on.

95. Even in its reduced state, the scientific capacity of the MOE is significant – it sets the standard in the province. “When a sample is needed for legal purposes, the MOE lab is the one called in to do the testing and MOE staff are regularly consulted by private labs.”

96. The Ministry is, however, currently under a three-fold threat: loss of existing scientific talent (and institutional memory) through retirement of senior staff; insufficient opportunities for staff to upgrade their skills through training and conferences; and new hires are few and far between and bring in very junior people with limited experience and expertise.

97. In addition, internal MOE structures limit the availability of scientific support to abatement and investigations staff. Arguably the biggest loss came when the three regional MOE labs in London, Kingston and Thunder Bay were closed in 1996. Environmental Officers speak of how they used to rely on the scientific expertise of lab staff, of how they consulted lab staff on a regular basis. A microbiologist with one of the former regional labs puts it this way:

The laboratory system is the heart of the MOE. And what the government did is cut out the heart of the Ministry of the Environment...The government labs operated at an arms length to the clients. The lab was kind of the hub. As samples came in, the lab communicated with a huge number of people. You needed that communication. You just can't send samples to the lab. I got asked over and over what do the lab results mean? You have to place the lab samples in context of the problem. Whenever you have a test result, you have to ask a huge number of questions. Who, what, where, when and why?

98. The cutbacks have also effected the sole surviving MOE lab in Toronto. The budget cuts have limited the Ministry's capacity to develop new methodologies to deal with new substances.

Aging MOE staff

The class of '73 [hired when the MOE was created] is about to 'graduate'.... When all previous Water Treatment Plant inspectors retired, the Ministry put no time or effort into training new inspectors.

99. Less than three *per cent* of Ministry staff is under thirty years of age. More than 65 *per cent* is over 40 years old, and more than a full quarter of the staff is over fifty years old. In other words, the Ministry is in a position where significant numbers of its staff will be retiring within a very few years and with those people will go thousands of person years of accumulated knowledge of Ontario ecosystems, watersheds, and water infrastructure.

The average age of MOE staff is 47. People are retiring who have expertise that is not being replaced. For example, one scientist just retired who could tell by the 'smell' of a sample what the problem was - the kind of expertise that comes only with experience. There are uncompetitive pay scales for senior scientists so the MOE can't attract new people.

Recruitment and retention

100. Ministry staff observed that it is hard to attract talented people and harder to hold them in the current Ministry of the Environment.

It is hard to attract and keep good staff in a job that is not adequately compensated or held in much regard by the employer. Morale is low in the Ministry; people don't see public servants' roles like they used to. Good people won't come into the Ministry or they leave early, fed up and frustrated.

Training

101. The Ministry of the Environment does provide training to its staff but it falls short of what is required to ensure proper protection of the environment.

102. Currently listed on the MOE's human resources intranet site are courses on Compliance Training, Management, Abatement, Industrial Processes, Clean Up of Contaminated Sites, Health and Safety (including training in the prevention of animal

attack) and Tactical Communications.³³ Except for the contaminated sites course (which requires prerequisites), these are all introductory-level courses. They focus, for the most part, on training field staff to undertake basic abatement techniques.

103. Ministry staff need advanced training, increased opportunities to share information among one another, and need increased access to internal scientific specialists.

I have just come out of a year in abatement. [This staff person normally works in another section of the Ministry.] I took a water treatment course in 1984. I was expected to go into that water treatment plant and inspect it and I did. But I didn't know enough to be in there and say the water treatment plant is in good shape. You need experience and training to spot the small signs of potentially very big trouble.

104. Clearly, there is a connection between the need for training and the expertise of the people coming new into the Ministry. Junior staff are trained in the basics, but little else.

25 EO2s [junior Environmental Officers], fresh out of school, are going to inspect what ... is probably the most sensitive issue we have today - waterworks - after one month's training.

105. There are too few staff to give anyone the opportunity to develop special expertise.

We used to have people who specialized but over the last several years we have seen the rise of the generalist. Even the generalist knowledge has waned considerably from what we used to have. We are not able to develop knowledge as we used to.

106. As well, there is a direct connection between the reduction in the number of people who work at the Ministry and the level of expertise available.

There is a lack of a critical mass so we rely heavily on the knowledge of one or two individuals. This means that when those individuals leave, we lose their expertise, and sometimes their function (such as landfill specialists). We lose continuity of staff on certain project files. Available information is also fragmented and isolated in separate databases. The best information is OLD. We have lost lab function and the ability to do surveys in order to generate new data and answer new questions and issues. Specialists have become generalists. Staff used to specialize (in water and sewage for example) but new staff members are generalists. Recently, [February 2001], the water planning people were brought together for a workshop [in Peterborough] for the first time in 8 or 9 years.

³³ As of 15 March 2001, these are the courses listed on the Ministry Intranet at Home/Training/Courses.

107. Moreover, when there are too few staff to keep up with workloads, one of the activities that gets cut or postponed is training. For example, due to increased workload, the Northern Region of the Ministry elected to defer courses in abatement training for pulp and paper and mining, due to happen this spring, until fall 2001.³⁴

108. Ministry staff in other regions have faced similar problems trying to find the time to take the training. “Management tells me ‘if I lose you for two weeks so you can take the training, then I have no one to replace you.’ The problem is we get behind in our work. We really just don’t have enough people.”

Staff are isolated from in-house expertise

109. Abatement staff are not as well trained as they need to be to do their jobs. Ministry staffing policy has the effect of separating Abatement and Technical Support when the environment would be better protected if they worked more closely together.

There is one group for enforcement (the EOs) and another for professionals (technical support) to work only in an advisory position. As a result, [inspection] methods not always rigorous, and EOs make decision on their own without professional input. Priorities (which file is done first) between MOE Abatement and MOE Technical Support are not always the same. For example, the pesticide program is compliance driven, but needs specialized knowledge. Before the new Delivery Strategy was implemented, Pesticides Officers did the same abatement and investigative work as EOs do, and had the expertise to run the program. Now, Pesticides Officers, the specialists, have been replaced by EOs, who are much less expertly trained. EOs are very capable people, but cannot be experts in everything. They receive a few days training on each type of work they handle, and there is no requirement for mandatory involvement of professionals, this can lead to errors in judgment.

Restricted access to training and expertise are barriers to enforcement

110. Abatement staff with little training or experience who also cannot access in-house expertise can be severely challenged in their role to protect the environment. These staff need both training and back-up from experienced Ministry staff to help them spot signs of serious trouble with Ontario’s water resources. Without this help, they cannot be as effective.

³⁴ “ABT Courses Deferred,” electronic mail message for all MOE Staff, Tuesday, March 20, 2001.

To Fix the Current Situation

111. The Ministry of the Environment relies on science in order to protect Ontario's environment, in particular its water resources. It follows that the Ministry must be able to attract and retain the highest quality scientific staff. Finding, and keeping, these talented people requires they be compensated at something like market rates and be given the opportunity to expand their skills and knowledge. It requires that the Ministry and the government demonstrate that they value these public servants for their contribution to environmental protection. Maintaining a professional staffing complement is a minimum requirement that, if not met, signals that the Ministry cannot adequately protect Ontario's environment.

112. The Ministry must provide more and better training to its staff, including access to advanced scientific information and training necessary to stay abreast of new technology. It is also vital that staff be given the time to take the training.

113. The Ministry must provide for succession planning, mentoring programs and other mechanisms to ensure the transfer of institutional memory and knowledge from long-serving Ministry staff to younger, less expert staff.

Recommendation Three: The Ministry of the Environment must provide its staff with the necessary practical and legislative tools

Current Situation

Lack of Tools, equipment and vehicles

114. Between 1995 and 1999, the Ministry of the Environment's capital budget was cut by 90 *per cent*.³⁵ A large portion of the capital budget was the provincial allocation to sewage and waterworks infrastructure. However, other capital budgets were also cut, particularly for equipment in the lab and field and other necessary elements of inspection and enforcement of environmental protection.

115. Presently staff confront challenges thrown in their path every day by the simple fact that they do not have the tools they need to do their jobs. Old lab equipment, insufficient resources in the field and inadequate, fragmented, uncoordinated information resources take a hard job and make it almost impossible to do.

The Ministry's delivery of environmental protection programs suffers from a lack of ecosystem planning/lack of the big picture. There is no 'state of the environment' overview. We have neither the ability nor the tools to identify watersheds to set aside lands and protect them. The picture is fragmented.

There is a lack of tools including software and work station configurations to do mapping and data analysis on information received electronically by the ministry, field equipment support, time. For example, there is no money for capital works (OSTAR). The water policy branch of MOE does not have any hydrogeological staff or experienced surface water staff, and has one economic analyst.

The specially equipped support vehicles used for spill response are being dumped because they don't meet standardized usage requirements. Staff are told to rent them. There are only two appropriate vehicles in the whole city. Renting takes time and the two vehicles may not be available when needed. How can we respond quickly under these conditions?

We are refused equipment and materials on a constant basis, i.e. insulated coveralls and maps.

³⁵ Clark and Yacoumidis, 2000, at page 14.

I get [assigned] a vehicle two days a week. If something comes up in between, tough luck. The vehicles are shared which means that they are not fully equipped with safety and sampling equipment that I require. There is no access to any of our data bases since we do not have access to on-board computers. We should be spending our time in the field. It won't be long before we get a roll of quarters and a bus pass...

The equipment [at the provincial lab] is 20-25 years old - which is 10 years past its prime. The capital budget has been cut by 90 per cent since 1995. Equipment funding is tied to projects or comes out of the year-end surplus, which means that there is no replacement planning. When old equipment breaks down, staff spends time fixing it. This also affects data quality (less ability to analyze new compounds, meet detection limits).

Lack of Tools Means that Legislated Standards Are Not Met by Ministry

116. Under our first recommendation, we describe how Ministry staff allotments are insufficient to maintain the level of environmental protection mandated by law. The situation is similar with other resources such as data base tools.

117. For example, during the drought of 1999, the Ministry brought in a new regulation (O.Reg. 285/99) prescribing that all water taking applications will be assessed on a cumulative and an ecosystem impact basis. However, the staff responsible for conducting these reviews were not given the necessary tools to perform this analysis. In fact, they were given no additional support at all. Resources such as background information, data bases, and the ability to model or predict the potential impacts as required do not exist. Therefore, even though the regulation states otherwise, the province simply does not have the capacity to make the assessment mandated by law.

118. Tools also mean legal tools, and, while Bill 82 gives field staff greater legal power to enforce, these tools are not available evenly to staff across the province (some Tech Support staff are permitted to issue Provincial Officer Orders, others, in other regions, are not).

Legal Loopholes in the Farming and Food Production Protection Act, Ontario Water Resources Act and the Environmental Protection Act

119. Legislative protection of water resources could be much stronger in Ontario than it is, giving Ministry staff better tools with which to protect the environment. Exemptions granted to agriculture should be modified to acknowledge that practices have changed.

120. In his special report on “The Protection of Ontario’s Groundwater and Intensive Farming,” Ontario’s Environmental Commissioner observes that intensified use of rural ground and surface water – in particular by so-called ‘factory farms’ – has changed circumstances so much that reforms are sorely needed.³⁶

121. Both the current and previous Environmental Commissioner have called for a comprehensive groundwater management framework within the province:

122. In April 1997, the ECO suggested that a groundwater management and protection strategy could contain many interrelated elements such as:

- a publicly accessible inventory of groundwater resources and a data management system;
- a long-term monitoring network of water levels for major aquifer systems;
- a system to identify and protect sensitive aquifers and groundwater recharge areas;
- an inventory of current and past uses of groundwater and sources of groundwater contamination and an evaluation of their potential effects on health and ecosystems, including cumulative impacts;
- a strong regulatory program aimed at preventing contamination;
- an economic assessment of groundwater value, including current and replacement value;
- a means of coordinating decision-making between all ministries and agencies that have jurisdiction over groundwater.³⁷

123. The province’s groundwater monitoring program is discussed below in comparison to these points. For the purposes of this recommendation pertaining to tools, it suffices – with specific reference to the element noted above of “a strong regulatory program aimed at preventing contamination” – that loopholes in the *Environmental Protection Act* (EPA) and the *Ontario Water Resources Act* (OWRA) be closed until such time as a properly protective regime is in place to manage the impact on water resources of current agricultural practices.³⁸

³⁶ Environmental Commissioner of Ontario, The Protection of Ontario’s Groundwater and Intensive Farming, Special Report to the Legislative Assembly of Ontario, Submitted July 27, 2000

³⁷ Ibid, at 3.

³⁸ The current legislative exemptions are:

The EPA:

Prohibition

6. (1) No person shall discharge into the natural environment any contaminant, and no person responsible for a source of contaminant shall permit the discharge into the natural environment of any contaminant from the source of contaminant, in an amount, concentration or level in excess of that prescribed by the regulations.

Exception

(2) Subsection (1) does not apply to animal wastes disposed of in accordance with normal farming practices. R.S.O. 1990, c. E.19, s. 6.

Enforcement tools -- sampling and audit information

124. Facilities are required to monitor their operations. This data is submitted at varying frequencies to be assessed by Ministry staff to evaluate compliance. Anomalies in the data are difficult to assess months after the original sampling. While standards for quality assurance and quality control of sampling and analytical procedures have been greatly improved by recent legislative changes, the accuracy of the self-monitoring still requires independent verification.

The Ministry currently has no choice but to believe what people tell us. Staff don't have time to verify things. For example, ... we had been inspecting a sewage treatment plant for years. We had no way to verify the information from our inspections. It turned out that management staff at the plant had been falsifying records for at least a decade. The plant has an internal lab. A lab tech blew the whistle...The corporation was charged, pled guilty and the former plant supervisor accused of falsifying the records is now before the court. That's why MOE should do audits and have staff who are well trained and don't just do 'check list' inspections.

125. When Environmental Officers review monitoring reports during compliance inspections, such data include water quality results collected from groundwater monitoring wells.

The OWRA:

Interpretation

34. (1) In this section, reference to the taking of water for use for domestic or farm purposes means the taking of water by any person other than a municipality or a company public utility for ordinary household purposes or for the watering of livestock, poultry, home gardens or lawns, but does not include the watering or irrigation of crops grown for sale.

Idem

(2) In subsection (4), the reference to the taking of water for the watering of livestock or poultry does not include the taking of surface water into storage for the watering of livestock or poultry.

Taking of water regulated

(3) Despite any general or special Act or any regulation or order made thereunder and subject to subsection (5), no person shall take more than a total of 50,000 litres of water in a day,... without a permit issued by a Director.

Application to domestic and farm use

(5) Subsection (3) does not apply to the taking of water by any person for use for domestic or farm purposes or for firefighting.

"It would make a huge difference if we just had the authority to tell a farmer to get his cattle out of the creek."

126. The MOE does not verify those wells during their compliance inspections to confirm the accuracy of the data being reported. The reason for not doing such verification is simply due to the fact that the MOE does not have the sampling equipment to do the work and does not have a clear and concise protocol in place to do such verification. Consequently, we totally rely on the work performed by the owner or the third party hired by the owner.

To Fix the Current Situation

127. Ministry capital budgets must be increased to provide for planned, rational, capital expenditures to ensure they have the tools and equipment they need to carry out their jobs. Abatement, Investigations and Technical Support staff must have the necessary tools, vehicles and equipment for their work in the field. Lab staff must have equipment capable of protecting Ontario's environment with adequate test methodologies, and proper scientific standards.

Groundwater monitoring

128. Groundwater aquifers do not follow political or watershed boundaries. They should be assessed and monitored on a regional basis. The Ministry of the Environment is the logical body to carry out this mandate. The Ministry can and should take advantage of other parties with data and resources to share and aid in the overall goal of first understanding and then protecting the groundwater resources of the province.

129. The Ministry announced a new groundwater monitoring and protection program in October, 2000. Parts of the program were new. Other parts, such as the Provincial Water Protection Fund, the new water-taking regulation under the *Ontario Water Resources Act*, and the province's still-incomplete assessment of intensive agriculture, were existing initiatives being re-announced. The Water Protection Fund includes *studies* on:

- Groundwater Resource Assessment: to identify and assess key groundwater areas;
- Contamination Assessment: to identify and assess the sources of contamination to the aquifers that supply the municipality with water for drinking and other uses;
- Groundwater Management and Protection Measures: including land use policies to protect critical groundwater areas, and operational policies with respect to fuel storage, performance standards, watershed stewardship and other measures;
- Contingency Planning and Emergency Response capacity for early detection of potential threats to groundwater systems and the

identification of replacement groundwater supplies or alternative sources available in an emergency.

130. Compare this program with the recommendations of the Environmental Commissioner:

- a publicly accessible inventory of groundwater resources and a data management system;
- a long-term monitoring network of water levels for major aquifer systems;
- a system to identify and protect sensitive aquifers and groundwater recharge areas;
- an inventory of current and past uses of groundwater and sources of groundwater contamination and an evaluation of their potential effects on health and ecosystems, including cumulative impacts;
- a strong regulatory program aimed at preventing contamination;
- an economic assessment of groundwater value, including current and replacement value;
- a means of coordinating decision-making between all ministries and agencies that have jurisdiction over groundwater.³⁹

131. The provincial program will not meet these criteria. OPSEU members recommend that the groundwater monitoring network as proposed should be expanded with significant regional staff involvement to ensure that monitoring points are adequate and that the data produced will meet the needs of future reviews and assessments. It is vital that regional staff are actively involved in the planning, site assessment, and information gathering and manipulation process in order to ensure that they can satisfy the requirements of Ontario Regulation 285/99 regarding cumulative and ecosystem impacts of proposed water takings.

132. The provincial groundwater assessment and monitoring program should be the responsibility of the MOE and be coordinated by the Water Resources Unit in each regional office. This would allow the program to be developed and implemented on a regional or aquifer scale independent of municipal and surface watershed boundaries. Ultimately the data collected will be utilized by the regional offices for groundwater assessments, Permit To Take Water reviews, and enforcement activities, therefore they should administer and guide the program.

133. The program must first identify and inventory major aquifer systems within the province. It should then quantify water resources within these systems and assess current demands on the resource. Regional staff should also map groundwater recharge and discharge zones in order to adequately protect these areas from contamination sources.

³⁹ Environmental Commissioner of Ontario, The Protection of Ontario's Groundwater and Intensive Farming, Special Report to the Legislative Assembly of Ontario, July 27, 2000, at 3.

Well head protection

134. The Ministry should legislate well head protection zones. A crucial part of protecting ground water is safeguarding the structure of the well and the lands within the recharge area of the well. Limiting the activities on the land above the zone from which the well obtains its water supply helps to prevent contaminants from entering the system and impacting the groundwater supplying the well.

135. Currently, there is no regulation preventing farmers spreading untreated manure right up to wells in any amount and as often as the farmer wishes. There are only suggested codes of conduct called Best Management Practices which are not legally enforceable.

136. There are guidelines for the spreading of treated sewage sludge and legally binding approvals need to be granted in each case. The guidelines limit the amounts, periods of the year and sludge quality (pathogens, metals and nitrogen). The guidelines govern which crops can be grown and the separation distance between the area of sludge application and wells and water courses.

137. However, the guidelines do not take into account individual aquifer parameters and well hydraulics. In certain geological settings, hydraulic connections can extend over wide areas that may be much greater than the normal setbacks for sludge applications. Also the potential exists for added nutrients and pathogens to overwhelm the slow natural purification processes that take place as the water percolates through to the aquifers.

138. Several U.S. states and one Canadian province (New Brunswick) have well head or well field protection zones.

Private well program

139. There are approximately 500,000 private wells in Ontario providing water to three and a half million people. There are currently no programs to ensure that these well water supplies are properly constructed or maintained. Protection of private wells is required for two reasons:

- 1) To ensure that the people of Ontario have access to adequate sources of safe drinking water, and
- 2) To ensure that private wells are constructed and maintained in a sanitary condition in accordance with Ministry regulations to protect the aquifers of Ontario. This is necessary to ensure private wells do not pollute other people's water.

140. In order to achieve these goals the Ministry should re-establish the Water Well Inspection Program. This would require trained staff, dedicated to the inspection and enforcement of existing water well regulations of Ontario.

Sampling and auditing

141. Protecting Ontario's water resources requires proper sampling data, which includes providing for quality control on all labs, public and private. The Ministry should also undertake to establish a practice of random and scheduled sampling of water treatment plants. Maintaining standards and guaranteeing public safety requires scrutiny and verification.

142. To adequately assess compliance with Ministry of the Environment regulations, and groundwater guidelines and conditions of approval, inspections of facilities that have networks of monitoring wells should be conducted so that the wells are sampled at a frequency that is similar to water treatment plants and effluents from sewage treatment plants. In order to achieve this objective, each District office should have the appropriate sampling tools and a uniform protocol that will allow the collection of representative samples from groundwater wells.

Recommendation Four: The Ministry of the Environment must become proactive, rather than reactive, and make use of staff expertise in policy and planning.

Current Situation

143. Not long ago, the Ministry of the Environment senior staff were experts and scientists as well as managers. There was consultation with other staff. Formerly, non-management staff felt the Ministry ‘backed them up’ on their work. Recently, however, the connection between Ministry management and staff has been weakened by a managerial style that shows a preoccupation with quantity rather than quality. There is less technical expertise in environmental sciences among management staff at senior levels and, overall, less of a concern with protecting the environment.

144. OPSEU members understand this style of management is not optimal in terms of environmental protection.

145. The Ministry of the Environment now works from the top down.

There is no upward feed in the MOE, which is a big weakness in the organization.

Staff are always looking up in the organization and feel distanced from the public. Rather than serving the public, the organization serves its own bureaucratic needs. There is too much paperwork. Staff are being asked to write briefing notes which don’t just give the facts, but also put the ‘correct’ political spin on it. ... Decision-making also occurs at this higher level with no consultation with staff. This has a negative effect on performance.

Top-down work planning leads to work plans which do not reflect realistic time frames for environmental protection – or all aspects (for example, subsurface disposal systems – septic tanks – are not included in the work plan although they are an important factor in water quality). Work plans are also affected by the crisis style of management. Inspection of Water Treatment Plants was an optional activity two years ago. Post Walkerton, we need to inspect every year “until the controversy dies down.”

146. Senior management-level decisions concerning ministry policies and action sometimes appear to be made based on political considerations, or pressures from other ministries or other factors that do not relate to the ministry’s mandate to protect the environment.

We fight fires instead of taking a preventive approach. For example, proactive programs such as well head protection and groundwater studies are given low or no priority.

There is a lack of technical skills and leadership in management. ... A manager recently said that they were 'issues managers'... My manager has said "I don't want to know about that technical stuff.

Priority is given to administrative and reactive work, rather than proactive areas such as well head protection. For example, one abatement officer was told not to respond to a spill that was going directly into a waterway. His priority was to write a briefing note. In preparation of the 'Delivery Strategies' document, another staff person recommended that priority should be given to wellhead protection. This was overruled.

147. Some management-level staff members have limited expertise in environmental science.

There is a lack of expertise and knowledgeable water management leading the MOE on water issues on policies, programs and direction. Input from experienced people is not there from the unit head up. ... This expertise is not there at the management and decision-making level. Lack of consultation with staff who have the expertise exacerbates the problem.

Management needs to consult with staff in order to focus on the real sources of problems and acknowledge areas that have the greatest impact on environmental protection. These need to be recognized in the work plans so we focus on where we can have the best results. This will require consultation with the staff in development of the work plans.

For example, take Reg. 459/00. There are great parts to this legislation, but large plants that ammoniate (such as the City of Toronto) are not accommodated. ... Experienced staff were not consulted.

Senior staff who have expertise should be involved in staff development.

148. Management also appears to staff to be very concerned with the measurement and counting of Ministry functions, as opposed to being concerned about environmental protection. "People can 'count' inspections whether they were cursory or thorough – or whether or not they accomplished anything for the environment. Few of our 'measures of progress' actually measure aspects of the environment itself."

To Fix The Current Situation

149. If the Ministry were concerned about saving Ontario taxpayers money, it would follow the old saying that “an ounce of prevention is worth a pound of cure.” Proactive, preventive programs only seem expensive until one considers the cost of cleaning up after a disaster such as the Walkerton Tragedy. The Ministry must change its focus from ‘fixing’ environmental problems to ‘anticipating and preventing’ them.

150. In so doing, the Ministry would come closer to its own Statement of Environmental Values: “The Ministry’s environmental protection strategy will place priority first on preventing and second in minimizing the creation of pollutants that can damage the environment.”⁴⁰

151. In undertaking this new, proactive direction, the Ministry could greatly improve its performance overall by consulting with its staff and involving them in decision-making about priorities, programs and policies. The staff of the Ministry of the Environment are a great resource – committed and capable – who are better qualified than anyone else in the province to build a proactive program of environmental protection.

152. Ministry procedures for policy and program development should include an internal consultation process that must also include the necessary time allotments for meaningful and effective consultation with staff.

⁴⁰ See <http://www.ene.gov.on.ca/envision/env%5Freg/er/sevs/sa4e0001.htm>

Recommendation Five: The Ministry of the Environment must provide adequately skilled staff and organizational support and ensure funding to build and maintain Ontario’s drinking water infrastructure.

Current Situation

Provincial funding support for sewage and water treatment plants

153. In 1995 the province reduced its support for sewer and water services by cuts to MOE allocations to the Ontario Clean Water Agency (OCWA).⁴¹ The budgetary reductions to OCWA totaled \$142.5 million between 1995/96 and 1997/98.⁴² These cut backs affected the Municipal Assistance Program which granted funds to municipalities for sewer and water infrastructure.

154. In addition to the budget reductions, the Province introduced Bill 107, *The Water and Sewage Services Improvement Act*, in January 1997. Enacted in May 1997, Bill 107 had two major components.⁴³ The first provided for the transfer of ownership of provincially owned water and sewage treatment plants to municipalities – approximately 25 *per cent* of the plants in the province, mostly in rural areas. The second major component was the government's May 1997 budget, which announced a one-time transfer of \$200 million to municipalities for sewer and water infrastructure support. These funds established the Water Protection Fund, intended to ease the transfer of provincially-operated sewer and water facilities to municipalities.

The current state of Ontario’s water infrastructure

155. The Water Protection Fund has expired, and many of Ontario’s water treatment plants and sewage treatment plants and other elements of the water system are old, crumbling and need repair.

156. Current funding plans are not adequate to maintain Ontario’s water infrastructure.

157. Small communities – Walkerton is a good example – face particular challenges in maintaining the infrastructure required to provide safe drinking water.

Small water systems face many unique challenges in providing safe drinking water to consumers. The substantial capital investments required to rehabilitate, upgrade, or install infrastructure represent one such challenge. Although the total system need is modest compared to the needs of larger systems, the costs borne

⁴¹ Winfield and Jenish, 1996, at 3-33 ff.

⁴² Ibid.

⁴³ Ibid.

on a per-household basis by small systems are significantly higher than those of larger systems.⁴⁴

158. As illustrated on the following chart, small centres cannot adequately finance safe drinking water infrastructure through property taxes alone. The *per capita* costs are too high.

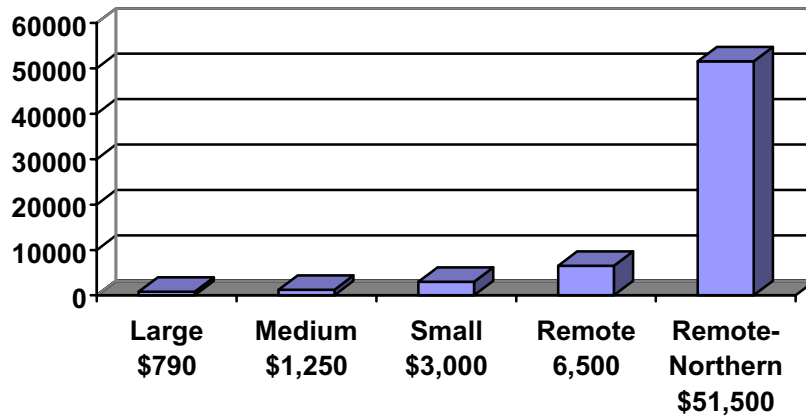


Figure 1

Per-household costs of water service delivery increases dramatically in smaller, more remote communities. Source: US Environmental Protection Agency.

159. The Ministry of the Environment is best suited to determine how Ontario's water infrastructure will be publicly supported. It must build its own capacity to make this determination. The Ministry, due to downsizing and retirement, no longer has the internal expertise required to make good decisions about how the provincial water infrastructure should be managed. Sufficient expertise is an essential element of a well-managed water system that protects the public interest. As a central source of expertise, the province would spare municipalities both the expense of seeking solutions in isolation and the cost of making sub-optimal choices.

To Fix the Current Situation

160. The proper funding and maintenance of the whole system in Ontario must be ensured. This means about two-thirds of the system (those parts outside of major urban centres with sufficient tax bases to maintain the costs of their own systems) must be maintained at least in part with public funds. Many hundreds of millions of dollars will be required.

⁴⁴ U.S. Environmental Protection Agency Office of Water. Drinking Water Infrastructure Needs Survey: Second Report to Congress (Washington DC: USEPA, February 2001)

161. As a first step, the Ministry must undertake its own evaluation of the infrastructure needs, determine priorities across the province and take the lead in determining how the overall project will be financed and implemented. (OPSEU will make other submissions about these issues. This submission is focussed on the structure of the MOE itself.) The Ministry must retain sufficient expertise to be able to make the determinations described in the last paragraph. Trained ministry staff with engineering expertise are necessary to assess community needs and the technical solutions to them. Economic and policy expertise is needed to develop an overall framework that will ensure the existence of the needed infrastructure.

162. The significant expertise of the Ontario Clean Water Agency should also be fully utilized.

163. Once the appropriate framework is in place, it must be implemented. The Ministry must have the capacity to supervise that implementation. Staff must be in place who can stay abreast of the economic and policy challenges inherent in following through with such a project. Changes in water treatment technology must be tracked and incorporated. Continuous quality maintenance must be ensured. The Ministry must redevelop the capacity to conduct the needed supervision and inspection, and to have expertise on call when problems in the field surpass the capacity of inspection staff.

Conclusion

164. For OPSEU members, the tragedy at Walkerton was deeply felt. When the crisis began, OPSEU members and retirees from across the province responded quickly and around the clock to help. They were from the Ministries of the Environment, Natural Resources and Health, from the Ontario Clean Water Agency, from hospitals in Walkerton, London and Owen Sound, from the Bruce Grey Health Unit, from land and air ambulance services and from many other workplaces. They were water treatment plant operators, lab technologists, environmental officers, hydrogeologists, administrative assistants, land and air ambulance paramedics, public health inspectors and others. OPSEU members never want to see the incidents at Walkerton repeated in any other community.

165. The recommendations in this report are offered to the Walkerton Inquiry in the spirit of proud service to the public, and with the conviction that we can and must learn from the errors that led to the tragedy. It is time to move forward better prepared to protect the public interest, the environment and communities like Walkerton – small in size, so significant in their contribution to Ontario’s social fabric and economy – and fully entitled to be protected from the risks of unsafe drinking water.

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