

APPENDIX A: SUMMARY REPORT OF WORKSHOPS WITH OPSEU MEMBERS

The Ontario Public Service Employees Union (OPSEU) held workshops in six locations across Ontario with MOE staff represented by OPSEU in February and March 2001. The workshops were held in London, Hamilton, Kingston, Thunder Bay and two locations in Toronto. The workshops were held during work time and, in most cases, in the workplace. The employer gave approval for the participants to attend.

The participants' names and all identifying information have been withheld at their request.

**Summary report of workshops with OPSEU Members:
OPSEU Input to Part Two of the Walkerton Inquiry
Workshops #1 - 6
February – March 2001**

Participants

At the request of the 52 participants, their names will not be released.
Facilitator: Bev Burke.

Part One: Workshop Overview

Objectives

1. Review stages in the engagement of the MOE in the water system in Ontario and the role played by participants at each stage.
2. Identify key strengths and weaknesses of MOE's engagement in the system.
3. Develop and prioritize Recommendation to address the weaknesses identified. Identify what needs to happen within the MOE for these Recommendation to be implemented.

Agenda 12- 4:30 p.m.

12:00	Lunch
12:30	Introductions MOE engagements in the drinking water management system in Ontario
1:00	Identify strengths and weaknesses in the system
2:15	Draft Recommendation to address weaknesses
4:00	Prioritize Recommendation (if required) Closing remarks
4:30	Adjourn

Part Two: Process and Results

Objective one:

Review stages in the engagement of the MOE in the water system in Ontario and the role played by participants at each stage

Process

A wall chart had been prepared with the stages of engagement: watershed/aquifer, raw water source, water treatment plant, water mains - storage and distribution, and service and connection. Each person was asked to write on a post-it note their name and function at each stage on the chart and to post these at the appropriate points.

Results

Workshops 1 –6 : Confidential at the participants' request.

NOTE FROM WORKSHOP #2: re: role of abatement officers

Abatement officers are frontline people who deal with the public. The term 'abatement' is not an accurate representation of their duties. There is some geographic assignment – but everything comes to abatement. They are field workers – front line 'cops', responsible for responding in order to protect the environment. There is no specialization – which is a problem. The differences noted in the descriptions below are due to factors individuals chose to highlight rather than a reflection of differences among the duties of the abatement officers.

NOTE FROM WORKSHOP #3:

- Difficult to situate ourselves given new regulations coming out and redefining water works.
- All our officers do inspections and all the jobs given the nature of the region and the size of the workplace.

NOTE FROM WORKSHOP #5:

Most participants had at least five years experience in the Ministry with the majority over 10 and several over 25 years.

Objective two

Identify key strengths and weaknesses of MOEs engagement in the drinking water system.

Process

Participants were divided into 3 groups. Each group was asked to:

- Identify two (or three) main strengths of the drinking water system in Ontario (and give an example from your own experience for each point).

- Identify two (or three) main weaknesses of the system at the point(s) of engagement where your function is involved. Be as specific as you can. For each point, give one example from your own experience.

Groups were asked to headline in large letters on post-it notes with a marker pen the strengths and weaknesses identified and to write their example for each point on the back. Groups first reported back the strengths and posted them, with related points grouped together. Weaknesses were posted on the wall chart of MOE's engagements at the relevant point .

Results: The following strengths were identified:

Workshop #1 - Strengths

- *Ability to source good quality water* The Ontario system still maintains high quality drinking water compared to other systems as a result of MOE drinking water monitoring and DWSP database over more than 10 years.
- *Well established* We have an international reputation for quality data; expertise in diverse analysis and facilities to provide efficient service.
- *New drinking water protection regulation* This makes standards a point of law, not just 'objectives'. This means that waterworks having non-compliance such as a high bacterial result can have action enforced by MOE inspectors.
- *High quality unbiased testing and reporting* MOE maintains a close supportive relationship with other MOE branches/divisions on scientific technical issues related to testing; emergency testing capabilities (example in tire fires)
- *Focus on environmental protection, not profit* Data gathering and interpretation /analysis of trends in the public interest.
- *Reference capabilities* extensive methodology; legal protocols in conjunction with IEB - court case samples. Participants noted that when a sample is needed for legal purposes, the MOE lab is the one called in to do the testing. The MOE staff are regularly consulted by private labs.
- *Formalized relationships among different stake holders* For example, between the province and municipalities.
- *Concentration of expertise in one location* Allows people to consult with other specialists, have access to a library which includes most major journals - and is cost effective.

Workshop #2 - Strengths

- *High quality and commitment of the staff* Each group noted the staff as a strength, making the following points: staff are dedicated and technically capable (for

example, scientists with worldwide reputations/with many published scientific articles and qualified as expert witnesses in their field); experienced field staff and abatement staff; high quality technical support and labs- (noted importance in residue management from treatment plants.)

Comment from one participant in the report feedback. Although the group identified this as a strength for the staff remaining within the MOE, it should be recognized that the MOE has lost a significant number of its scientific staff either through staffing cuts or attrition and that these positions have not been readily filled with the experienced individuals.

Legislation and guidelines were also a strength noted by each group. MOE is more often than not effective at obtaining convictions in legal proceedings. (e.g. we win 60% of legal cases); Compliance tools (Bill 82 training) means we can search, seize, acquire equipment and can issue orders - a big change from earlier field orders; Guidelines developed for best management practice and consultation with stakeholders (for example, landfill standards, Ontario Farm Plans, Ontario Pesticides Advisory Committee).

Comment from one participant in the report feedback. Although the groups identified this as a strength, it should be recognized that this was being presented as a 'tool' available to staff to use. It should be recognized that much of Ontario's groundwater is still being managed in a manner that is framed by only guidelines and not legislation that can be easily enforced, examples being the assessment and clean-up of contaminated sites which have not caused an adverse affect off-site, assessment of large sub-surface septic systems greater than 10,000 l/d volume, spray irrigation scenarios for waste water etc.

- *Emergency response* A strength is the ability to address high profile, crisis oriented, once a decade occurrences on publicly sensitive issues. (e.g. Mississauga Train Derailment (1979), Hagersville Tire Fire (1990), Walkerton well contamination (2000), spill action, site support team 1980-1987). There is less paperwork in an emergency, and the organization is clearly focused. *Note:* A caution that some Technical Support Section staff require both training and equipment to be in a position to handle serious environmental emergencies.
- *Ability to deal with political sensitivities (flexibility)* For example, MOEs handling of relations with an industrial company or other stakeholders.

Workshop #3 - Strengths

- *Staffing* Everyone agreed that the high commitment of staff to improve water and the environment was a strength. The recent hiring of more water inspectors (both in abatement and TSS) was also seen as a move in the right direction to give EOs more staff hours and therefore more time for proactive studies.
- *Standardized approvals* Two groups saw this as a strength. The new standard formats have not been used or tested as yet. However, the review and reissue of C of As will level the playing field, be more accurate and provide uniformity across the province.

- *Mandatory abatement* More provincial officer orders issued.
- *New comprehensive, world leading regulations/legislation* Reasonable Use Guideline (B7) provides effective tool for protection of off-site water quality. Reg 459/00 means that all water supply systems are being looked at and brought up to 'standards'. First time we have a system for classifying communal water sources and specifies treatment requirements for each type. Requires engineering reports every 3 years, annual inspections, POOs written to ensure compliance, detailed sampling programs put in place.
- *Proactive funding* Water protection fund makes monies available to do proactive work (for aquifer source area delineation and for well head protection plan development) .
- *Recent MOE provincial water workshop in Peterborough* First one in a decade, provided the opportunity to look at an overview of the system.

Workshop #4 - Strengths

- *Committed and knowledgeable staff* Local staff who know the area, combined with head office specialists when needed. There is still in the MOE a strong historical knowledge base around water. Some of the MOE staff are the best in the world in their field.
- *Instruments and standards* The MOE system of legislation, policies, regulations, enforcement orders etc. (for example, Certificates of Approval, Drinking Water Standards), protect the environment when they are followed.
- *Provincial Officers Orders* Mandatory abatement to achieve compliance or amelioration. When we find a problem, we can act. The POOs give the legislation some teeth.
- *Regional and District Offices structure* This structure allows for a local presence and knowledge, and increases rapport and credibility with the local population.
- *Public access* Abatement officers located locally provide relatively easy access for the public.

NOTE: In the discussion we noted that some of these strengths (i..e. instruments and standards) are only about one year old.

Workshop #5 - Strengths

- *Dedicated, committed and knowledgeable staff* All groups came up with this as a major strength of the Ministry.

- *Legislation and Tools* All groups mentioned legislation as a strength. We have a good abatement ‘tool kit’. Provincial Officers Orders require immediate action to take place. Provincial Offences Act tickets are an immediate way to take action against infractions of the law.
- *Respect for the MOE* While this is being eroded, there is still public trust - and some fear - of the MOE. If it wasn’t there, how else could we go out into xx county and say “you ought to be doing this” and they do it? We have the force of law behind us.
- *Broad, public interest focus* As a provincial agency, we see the issues independent of parochial interest, political and watershed boundaries. We are in a position to see all of the problems and can rank them in order of importance and deal with trans-boundary issues effectively.
- *Field access* 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.

Workshop #6 - Strengths

- *People - dedicated staff* We have many people who are putting in a lot of unclaimed overtime. Staff tap into a lot of expertise among their peers, now spread across the province. We rely on the knowledge of our peers in dealing with a compliance situation. We used to rely on our regional lab people as well.
- *Legislation*
- *Compliance tools* (Bill 82) The strength is that we can act directly.
 - *Control documents* including C of As, Permits to take water, Conditions, Limits, Field Orders which is a direct response to a circumstance.
 - *WDS approval*
 - *STP approval* - the whole EA either municipal or industrial. It is important that we are involved right from the beginning so we can make Recommendation in how to design the facility to avoid problems.
 - *Official plan policies* the MOE still has a commenting role with official plans. So we do make sure that policies include protection of surface and ground water.
- *Data bases have improved* For example, water well records. There are about 500,000 records for this province and the ministry has taken the initiative to computerize all of these records. They are available to the public, to real estate people, consultants etc.

The following weaknesses were identified:

Workshop# 1 - Weaknesses

- *Communication problems* in the interaction between field staff analysts and the lab. For example, they are supposed to preserve the sample, but they don't; or the quality is poor and it has to be redone which is a waste of resources.
- *Workload/crisis management* Lack of an emergency response plan. For example, in the case of Walkerton people were taken from their jobs for several months and the samples pile up. With crisis management there is no slack when the crisis hits. This is affecting morale in the lab. Private labs call MOE looking for expertise and leadership. This will likely increase - further strain on workload. Municipalities want MOE testing, especially when legal standard is required. They don't trust private labs. Government labs have developed the methods, are neutral - have no stake. Workload situation also means never making method development targets.
- *Lack of training* Some people lack training; others need to have updated training in current methods - and there is a lack of resources for training.
- *Diminishing scientific expertise in the lab* (see below re no succession planning) One anecdote about what staff and expertise in the field looks like now - a 'super tech' who fills in when people need extra support in various locations, told of an experience in the field where he requested someone to talk with who had expertise in an area and being told that the 'expert' was a summer student.
- *No succession planning* The average age of MOE staff is 47. People are retiring who have expertise which 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. [Name with held] is the sole microbiologist at the lab. When she was hired they were not sure that the position (vacated by the previous sole microbiologist retiring) would be preserved. She had been at her job about a year when the Walkerton tragedy occurred, and "the Ministry would have been in a terrible position had she not been there."
- *No enforcement of the new regulation* Waterworks are to be inspected once per year - lack of resources to do this. The reg will likely be expanded to smaller waterworks as well. This will quadruple the workload a year from now.
- *Variability of proficiency of waterworks between large cities like Toronto and small towns* For example, Toronto has its own lab and is proactive in bacterial evaluation. Small waterworks have few staff (1-2) that do everything (including snow clearance) and have no formal bacti experience.
- *Decisions politically driven, rather than scientifically driven*

- *Lack of consultation with front line staff* - for example, around the new DW regulation. Staff would have emphasized that enforcement of the regulation will mean the need for more staff to monitor, test etc. -
- *Unclear role/mandate of the MOE* Is it to be a regulatory body and reference centre (for other labs etc.) and/or a production lab that does testing. 50% of the cuts were in production - and there is less and less testing going on. However, to continue to be a credible reference centre, we also need to be doing testing.
- *Privatization- testing/auditing* Private labs will meet guidelines but censure other data while the MOE will show the complete results (dioxins, sulphates, volatile organics, chlorides might be some of the traces not included in the private lab report which would be included in the MOE report). The public should have a right to all the data. For MOE to provide sufficient oversight for private labs, there would need to be more resources allocated. MOE has reduced involvement because of the cuts - in a context where there is MORE involvement needed to ensure water quality is maintained. Instead we have more self-monitoring of industry and municipalities.
- *Outdated equipment* Equipment is 20-25 years old - which is 10 years past its prime. Capital budget cut by 90% since 1995 - drop in base line around equipment. Equipment funding either tied to projects or comes out of the end of year surplus, which means that there is no replacement planning. When old equipment breaks down, staff spend time fixing it. This also affects data quality (less ability to analyze new compounds, meet detection limits etc.)

Workshop #2 - Weaknesses

- *lack of supporting policies and programs to carry out the MOE mandate/no proactive work* We fight fires as opposed to taking a preventative approach, for example: on well head protection, groundwater studies/ strategy and framework. Proactive issues given low or no priority. Requires documentation and time to prepare pro-active water management plans. For example, provincial GW studies require stakeholder involvement, scientific consultation, resolution of issues at different scales and it would make sense to use these processes in defining provincial water policies.
- *Inadequate resources (financial and human)* There is a major imbalance between workload and staffing; For example, some files cannot be dealt with for 2-3 years because there are other pressing issues. We require C of A reports, but we don't have time to review them. Pressure to get the work done fast is an unacceptable way to manage an office. It takes time to evaluate a project and write it up properly, especially when it might end up in court. The work of the hydrogeologist is assessment work on land use proposals, contaminated site clean-up. We have to assess and make recommendations which are reasonable, thorough, professional. 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). Ontario does not have a ground water monitoring plant, although every

developing country has one; the water policy branch of MOE does not have any hydrogeological staff or experienced surface water staff, has one economic analyst.

- *Field staff shortage* For example, Owen Sound has 54-56 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, the paperwork. If things are good, he can do it. If not, it will take a lot longer. The Operational Plan needs to be changed. There has to be long-term plan for dealing with emergencies like Walkerton. We used to have water well inspectors but all have been fired but one. There are 651 plants in the province, and these are just municipal plants, and we don't yet include the smaller ones.
- *Lack of training and no succession planning* Up to 1996 we had a training program for field staff which was disbanded. Retirement will take away knowledgeable staff, and there is no mentoring program. The average age of MOE staff is 47 so this is a serious weakness.
- *Lack of knowledgeable management /lack of vision* There is a lack of expertise and knowledgeable water management leading the MOE on water issues on policies, programmes, direction. Input from experienced people is not there from the unit head up. The director's committee does not know what happens to your projects. Environment is the study of a lot of different subjects involving many sciences. To understand how they relate, you need an analytical mind. This expertise is not there at the management and decision-making level. Lack of consultation with staff who have the expertise exacerbates the problem.
- *Monitoring reports of C of A s not being reviewed on a timely basis* - due to staff shortage and 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 by the Ministry. As a result, some reports wait for as long as three years to be reviewed. This defeats the whole purpose of requiring operators/owners of waste disposal sites to submit an annual status report to determine the environmental conditions at the site. 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.
- *Inadequate legislation* For example, Reg. 459/00. There are great parts to this legislation, but large plants that ammoniate (e.g. City of Toronto) are not accommodated. Need to come up with legislation now, within the next three months. Engineer reports cannot comply with the new standards as they are presently written. Experienced staff were not consulted. Should have separated the legislation into large and smaller plants.
- *No accountability at the senior level* There is a high Minister turn-over, so the government is not doing its job of overseeing senior management.

- *Decisions sometimes appear to be politically driven, rather than scientifically driven* For example, regulation 459 was put together because they needed to get a regulation out there but didn't take the time to consult. Review of development proposals is to be based on the guidelines. However, developers often have political connections. Approval for 400 houses is given based on the assessment by the Hydrogeologist and on the regulations. However, approval can sometimes be raised to 800 houses based on influence. The past 3 governments (Conservative, Liberal and NDP) would all support staff in legal matters. This government appears to give no protection from prosecution - you are on your own unless the union supports you. Employees feel that they will be made scapegoats by the government should serious environmental issues arise.
- *Lack of consultation with front line staff* Hydrogeologist is asked for input at the end of the process or not at all. Tech support is often not consulted for new policies or only consulted at the last minute. It is interesting that it is OPSEU who organized this workshop. MOE management should be doing this kind of consultation.
- *Shroud of Secrecy - lack of communication with staff* Linked to lack of consultation. For example, they are possibly going to hire 25 new inspection officers on contract, with no experience who will not have a commitment to the MOE. These people leave once they get training and experience.
- *Shortcomings of the MOE Delivery Strategy - split roles* One group for enforcement (the EOs) and professionals only in advisory position. As a result, methods not always vigorous, 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. Example: Pesticide cases of EOs - The pesticide program is compliance driven, but needs specialized knowledge. Before the new Delivery Strategy Pesticides Officers did the same abatement and investigative work like EOs do, and had the expertise to run the program. 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.

Workshop#3 - Weaknesses

- *Lack of experience in management* There is a lack of technical skills and leadership in management. They are out of touch with the actual hands-on work. A manager recently said that they were 'issues managers'. The sense is that the science/technical stuff can be learned on the job - all the manager needs are soft skills and an appropriate attitude. My manager has said "I don't want to know about that technical stuff". This has also led to 'bean counters' - based on political/administrative rather than environmental considerations. There are no 'beans' for protection, proactive work. Recently, the new minister wanted every brief reformatted so she could read them. This kind of thing takes the little time we have away from protecting the environment. It also means that management is unwilling to make technical decisions. They look for input from junior people who are under undue stress and

pressure. Without the technical background, management can't defend the decisions taken - and you are left with no one to back you up on issues.

- *No priority to proactive work such as wellhead protection* Priority is given to administrative and reactive work, rather than proactive areas such as wellhead protection. For example, one abatement officer was told not to respond to a spill which was going directly into a water way. 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. At present there is nothing in Northern Region, and possibly other regions, in terms of wellhead protection rules. Wellhead protection is strictly in the hands of municipalities...there are no provincial regulations or guidelines.
- *Lack of checks and balances between agencies/lack of overview of the water system* There is a lack of checks and balances to ensure that there are no gaps between agencies, and to monitor how they are interpreting and enforcing their mandates. For example, the Health Units were not informed of Delivery Strategies and change in MOE role. Abatement inspections do not look at well construction or well head protection. Therefore a water system could pass the current abatement inspection and still have unsafe water entering the well.
- *Lack of continuity/crisis orientation* For example, EOs switch areas every few years but there is no mechanism in place to ensure an ongoing overview of the historical performance of the water system in different areas. The present focus of the ministry is on water so other things, such as sewage treatment systems, are on the back burner for the moment, waiting for a crisis. MOE staff have observed that ministry is always fully prepared for last year's crisis..
- *Inadequate resources* Not enough staff and new staff positions are one year contract rather than permanent. In the next 5 years, one half of the experienced people in technical support-water, will be retiring. As far as we know, at the moment there is only one region in which an employee performs a significant number of well inspections. Such activities are not rated as priorities in the Ministry delivery strategies. Having our own lab meant that the information was available and comprehensive and we had lab people as a resource to the EO on the water quality in the region. 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 in the city which are appropriate. Renting takes time and the two vehicles may not be available when needed. How can there be a response time that is acceptable under these conditions?
- *Problems with legislation* Legislation is implemented so quickly that working definitions do not exist- for example, 'GUDI' - groundwater under the direct influence of S.W. Need more involvement of staff in the development of new regulations. Blank approach to monitoring has resulted in hardships to municipalities that can't comply to the Reg . There is a need to define 'source' for 'six or more' communal. Trailer park owners are treated in the same category as a town and have

to be certified as operators. Certification standards are impossible for these small operators - we need to find some ways to help them comply with reasonable standards.

- *Lack of regulation for small systems* We need a definition of who is responsible for which small systems. Trailer parks are the most at risk water systems. If there were a problem in a system such as Algonquin Park, it would be impossible to identify the source since people travel from all over the province (and out-of-province) so the first signs of health problems could appear anywhere. However, a manager actually said: 'you only drink the water in the provincial parks on the weekend'. In the past, we inspected small systems. However, since no other areas could get to these systems, this region was told to stop doing their inspections - otherwise it would make other regions in the MOE look bad.
- *Lack of resources and tools to do surface water predictive modeling* For example, when there is a spill of sulfuric acid into the lake system, there is no ability to model that - to see what the impact would be.
- *Distribution system* There is a lack of regs for small distribution systems. Stats would show that the majority of adverse samples are from the distribution systems but we are currently directed not to look at the distribution system when doing inspections.
- *Approvals for old C of A's* Certificates of approval can be as old as 30 years. It is not defined in the document as to what was required.
- *Data retrieval* ORIS is inadequate, due to the Y2K problem. The new system is not up and running yet. So you can't find the data you need. For example, in Walkerton, there was no one source for information on the system. It required a lot of detective work over several locations to get the information we needed.

Workshop #4 - Weaknesses

- *Inadequate resources* Both staff and support (e.g. training, tools, administrative.) There are not enough staff. And any new staff are being hired on contract rather than permanent. This means they could be gone in two years. The 50 new (contract) EO2s are being hired to reinspect WTPs already inspected. There is a lack of succession training (see below.) and training in general (for example on the new reg). Staff are asked to take on new tasks without sufficient training. The last DW training course was 12 years ago. There is a need for support staff to assist with report writing to permit abatement officers to spend their time in the field and not at their desks.
- *Lack of succession planning* The class of '73 is about to graduate and there has been no training plan put in place to ensure that their expertise is maintained. For example, when all previous WTP inspectors retired, no time or effort was put into training new inspectors (for the 13 public WTPs in Hamilton – there are also 30-40 private). When you don't know the plant it takes much longer to do an inspection.

- Crisis rather than proactive management* Whatever is on the front page gets top priority. We have the tail wagging the dog. For example, the Hagersville tire fire and Plastimet where they built a huge infrastructure AFTER the fact, had both been OLD issues before the actual crisis hit. The safe drinking water act had been sent to Cabinet at least 4 times but lack of resources and political lobbying from the petroleum industry blocked it - until Walkerton. However, often the response is an over-reaction. For example, new contract staff have been hired to inspect municipal WTPs that we just inspected while private water supplies and subsurface are not being touched. The Minister responds to a few vocal individuals or groups rather than to the needs of the environment. There is too much political interference.
- Fragmentation of expertise* There is a lack of a critical mass so we rely on individuals to make decisions. This means that when those individuals leave, we lose their expertise, and sometimes their function (ie landfill specialists). We lose continuity of staff on certain project files. For example, George Hughes, Lloyd Logan when they retired, MOE lost that function. Available information is also fragmented and isolated in separate data bases. 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 are generalists. In the reorganization, specialized groups (water etc.) were broken up. This fragmentation does not work for the front line people. The water planning people were together (in Peterborough) for a workshop for the first time in 8-9 years.
- Management by “bean counting”* People can ‘count’ inspections the same 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. There are many steps involved in any data that are sent out to the public. More work and effort is put into paperwork for the process than there is in responding to the request. Our region gets the largest number of FOI requests per year (@ 10,000) but there is no coordinated corporate data system to deal with them. We also spend a lot of time on internal reporting through STAR (System for Tracking Activities and Resources). It seems strategic - to keep staff so busy at their desks that we can’t get out in the field. Tech support are no longer allowed to write occurrence reports and go out in the field. Downloading of work to ‘abatement’ started around the cuts and continues through each crisis.
- Top-down work planning* This process leads to work plans which do not reflect real time frames for environmental protection – or all aspects (e.g. subsurface disposal systems were not included in the work plan although they are an important factor in water quality.) Workplans are also affected by the crisis style of management. WTP inspection was an optional activity two years ago, although we did do them. Post Walkerton, we need to inspect every year “until the controversy dies down”. Internally, there are not enough staff to work on orders arising from these inspections.

- *Unenforceable policies* For example the ODWS, prior to reg 459, were just objectives (policy) and so were not enforceable until we got the legislation.
- *Lab reports* There is an enormous lag in delivery (it can take 6-8 weeks turn-around time – and a month for health samples.) This means that if there is a problem we are delayed in taking action on it. The MOE lab reports are difficult to read and lend themselves to mistakes. (Private lab reports are easier to read). For example, the standards are not included and have to be looked up. The report does not list the items in the same order as the standards so one has to be extra careful in reading them. This takes time away from dealing with the problems. There used to be lab analysts who dealt with specific issues such as water quality and knew adverse water. They would phone staff directly if they found bad results (“bad news Alice”)
- *Data information systems* Abatement officers have to input data in a multitude of ways (STAR, EDRIS, ORIS etc.) Leads to additional hours spent at the desk rather than out in the field.

Workshop #5 - Weaknesses

It was noted that some are the flip side of the strengths since some of these strengths are being eroded.

- *Lack of pollution prevention tools* - including policy, legislation in areas such as watershed protection. People who are keen to go out and use the tools we have get repeatedly knocked down for it until they are no longer keen.
- *Erosion of staff and management 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 like we used to. (See lack of training below) There has also been an erosion of management’s technical expertise so that decision makers are often those with the least expertise. Senior staff who have expertise should be involved in staff development.
- *Lack of training* 25 out of school EO2s are going to inspect what we feel is probably the most sensitive issue we have today - waterworks - after one month’s training. The MOE lacks a learning culture. We share the responsibility with our employer to keep current in our field. There are two weeks allotted to training each year, but this is not widely known or utilized by MOE staff. The training we are receiving isn’t necessarily what we need. One participant was asked by a supervisor to develop a training plan for himself. Assuming staff will get support for their training plans, this is a new practice which might help encourage more staff training.
- *Lack of resources* Some participants expressed fear that saying there is a lack of staff sounds self-serving. However in follow-up discussions, several people noted that if OPSEU doesn’t express this concern on behalf of its members, who will? There was general agreement among workshop participants that more staff are

required to do the job. The loss of local labs has effected the ease of sampling. Samples aren't taken because they can't be handled. For example, a few weeks ago arrangements were made for a sample to be looked at on Saturday at the lab. They called on Monday morning because the samples were received on the loading bay on Saturday but the guard didn't know what to do with them so no analysis was done. We used to do follow-up of the facility we were concerned about. Over time we handed that over to summer students, without proper guidance to insure they were inspecting properly. Now there is no physical follow-up. Some people felt that more staff would be an exercise in frustration until the management bottleneck is addressed. Another opinion was that the bargaining unit deal with demands and work load and the administrative issues be left for management to deal with.

- *Political interference/ Silo/box mentality* Staff are always looking up in the organization and feel distanced from the public. Rather than serving/interacting with the public, the organization spends too much time serving its own bureaucratic needs. There is too much paperwork (Star, frequent briefing notes. This is a new development over the last five years) Staff are being asked to write briefing notes which don't just give the facts, but also put the 'correct' political spin on it. For example, in the months leading up to a crisis, field staff send notes saying they don't know what is happening. The notes get massaged and the minister's notes eventually say that the problem is being managed effectively. The message is that you should modify your ideas to those of the government - not what you think would be effective. All of this hampers the field staff. One person was told last year by the regional director that his #1 job was to protect the minister. Decision-making also occurs at this higher level with no consultation with staff. This has a negative effect on performance.
- *Reactive rather than proactive* Lack of proactive abilities in agriculture, water reporting etc. We react to pollution rather than trying to prevent it. It is difficult to establish a protection zone to protect a well since it is not popular politically. The new reg is an example of really bad implementation in response to a crisis, with little regard for its impact.
- *Organizational chart distortion* We used to have a water resources branch for water resources. Now you have to go to several parts of the Ministry.
- *Lack of ecosystem planning/lack of the big picture* There is no 'state of the environment' overview. We have neither the willingness nor the tools to identify watersheds to set aside for certain land uses and protect them. The picture is fragmented.
- *Bean counting vs. the environment* The analogy might be counting the number of bumpers used at a car plant instead of looking at measures of customer satisfaction. Performance measures need to be connected to the state of the environment. At the moment we are measuring by the number of C of A's or the number of times we go to court, rather than how we enhance environmental quality.

- *Business plan does little to protect the environment* For example, one desired result is a decrease in contaminants in Lake Ontario sports fish by 15% - but the margin of error is greater than 15%! The plan focuses on the number of inspections we do so we have reduced the quality of those inspections to increase the numbers.
- To clarify the point here, in this example of a “high-end target” in the MOE business plan (i.e. a 10 to 15 per cent decrease in certain contaminants in Lake Ontario sport fish over a 10-year period) demonstrates that the bench-marking exercise by MOE is just window-dressing. This rather modest target can be achieved by simply adjusting the study parameters (for example moving the sampling points), but more importantly the contaminants of concern (PCB, DDT, Mirex) are decreasing because of MOE efforts in the 1970’s – the levels are going down as these contaminants are slowly breaking down or are the Lake Ontario basin etc. There is very little connection to today’s abatement efforts and any observable decrease in these contaminants. Therefore, why is MOE listing this target as if it some big deal?

Workshop #6 – Weaknesses

- *No verification/ proactive audit function* Instead, we believe what people tell us. Staff don’t have time to verify things. And that is related to workload. For example, in [name of community with held], there is a sewage treatment plant that we had been inspecting 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. And a lab tech blew the whistle. The lab tech was uncomfortable rigging samples, keeping two sets of books etc. The corporation ...was charged, pled guilty and the former plant supervisor accused of falsifying 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.
- *Lack of technical expertise in management* In head office the goal has been to hire process managers. This is a weakness in a science based organization. Many managers actually refer to the ‘tech-y- stuff’, They are not hearing what we are saying. I have had managers, dealing with drinking water, say that Reg 903 is not a big deal, not a priority.
- *Lack of resources* - lack of staff, time, equipment, new technology. The resources we have are not allocated rationally. There is a rigid template which gives equal numbers to all regions (‘x’ hydrogeologists, surface water staff etc.) 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 ground water resources as the other regions.
- *No water resources management program.* There is no ecosystem approach. We have downloaded planning authority to municipalities. For example, with the water well program, there are 750 thousand wells that a few million people have to rely on. There is the OWRA, there is a regulation, but there is no policy and there are no guidelines to guide us. The PR PIR document tells us that we are not supposed to

respond to water well complaints unless there is some sort of health concern. There needs to be integration between MNR, MOR etc. There are some Memorandums of Understanding (MOUs). We have some of the elements in MOE (quantity, sewage C of A, treatment C of A), but we are not the entire scenario. We are not resource managers. The province needs a vision that water is a resource - and then the province needs to look after it that way, like timber.

- *Small septic systems (part 8) taken out of EPA* In eastern Ontario, 90% of the development is on septic systems. Probably half of the people of Ontario are drinking their own sewage. When the MOE was involved, we tried to ensure in the planning of a subdivision that the septic system was downgradient from the wells. This role was downloaded to building inspectors who are just interested in knowing if the design meets the code and there is no serious contamination. It used to be a critical role and now we can't even be brought in.
- *No longer involved in approvals for site specific planning applications* We used to review hydrogeology studies and we had a role in making sure water treatment plant and sewage treatment plants were in compliance before there was urban development. This has been downloaded to the municipalities. They are approving all kinds of development, accepting hydrogeology sight unseen or having them peer-approved. We are hearing about 200 houses on wells. One staff was at a meeting in Brockville. The consensus was that old-time politics is deciding plans for subdivisions rather than justifying the development around water and sewage services. They don't have experienced people to deal with these issues. There are no checks and balances, no larger body that is prepared to take these issues to the OMB. Picton wants to build a 200 unit hotel country club on a little island. No one is thinking about how they will service it.
- *There is new legislation but no backup policy guidelines and procedures, PTTW regs.*
- *'Bean counting'* The emphasis is on turn-around time. What counts is how many assessments you have completed rather than the quality of the work. For example, they took the aesthetic parameters out of water treatment plant inspection forms. Taste and odor can be the tip of the iceberg.
- *Lack of integration with partners* The MOE does not have the time or the resources to get involved with other agencies with similar interests. This means that the wheel gets invented over and over again. On best farming practices we should be working closely with OMAFRA. A good example of a program that worked in this regard was CURB (Clean Up Rural Beaches). We worked with MOE, MNR, Ontario Soil Crop Improvement Association. It was the first program cut by the Harris government. When front line people do meet with those from other agencies, our problem is that we have no resources. When we come back, there is no support or leadership to make anything happen.

- *Reactive, not proactive; Crisis ‘flavour of the month’ management - no leadership* There is no long term plan. Our statement of environment values should require us to plan 20-50 years ahead. Walkerton could happen in Eastern Region. It has in fact happened in Newburg at the Shell Station but we don’t know if there were any deaths. (It is impossible to track down all the people who might have used the water). We have reacted to Walkerton by going out and inspecting a lot of water treatment plants. But no one has gone out to assess the root causes and looked for the same kind of E. coli in wells and surface water.
- *Lack of outreach programs, or education component* The MOE is not educating the public about water. We’ve had outreach with waste management (the 3Rs) but never for ground water (ie the fair sharing of ground water).
- *Lack of internal training - and loss of corporate memory* There is a training guideline document but many staff are not aware of it. We have people out there working who are untrained and unqualified inspectors. For example, I have just come out of a year in abatement. 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 tip of the iceberg.
- *No regional lab* Because the lab lacks staff, they can only deal with so much. So we send fewer samples than we should. When we had our own lab, we could call on our own people as an important resource in follow-up on testing. That resource has disappeared.
- *Lack of consultation with staff* There is no upward feed in the MOE, which is a big weakness in the organization.

Objective three

Develop and prioritize recommendations to address the weaknesses identified. Identify what needs to happen within the MOE for these recommendations to be implemented.

Process

Participants worked in the same small groups. They were asked to:

- Write the most important problem/weakness to be addressed at the top of a piece of flip chart paper.
- Discuss what you recommend to deal with the problem. Include in your recommendation who you think should address the problem and why - the MOE,

some other government agency, another level of government (e.g. municipalities), the private sector etc.

- What would you as a front line worker need from the MOE for your recommendation to happen? (For example, new legislation, more communication with staff in other areas of the MOE or other levels of government or other government ministries (answer who for all of them), more staff, more training etc.)

People were asked to write their recommendation(s) and the resources required to make it (them) happen on the flip chart paper under the problem being addressed. Each group had come up with one recommendation which they presented to the other groups for discussion. In the full group we developed one additional recommendation on training and discussed the issue of MOE mandate. Participants felt there was no need to prioritize the Recommendation.

Results

Workshop #1 – Recommendations

Problem: Enforcement of new DW protection regulation

We felt this was the most important problem since the new reg is the main driving force of overall water quality. It sets the standard, the law that every water plan has to follow to ensure water quality.

Recommendation

- Break down the reg. into parts and identify which MOE branch and section are involved at administering and enforcement. Then identify the staffing (existing and new) and money required to properly enforce this part of the reg.
- Parts must equal the whole . Working relationships need to be established between MOE branches to properly administer the entire regulation.
- Field enforcement. Special DW Abatement inspection staff - experts.
- Communications - between MOE branches and sections and between municipality and waterworks. (At the moment many municipalities don't even know that the reg exists. It will lead to confusion and complexity so they will need help.)

Problems: Adequacy of testing and management (politically driven decisions/lack of consultation with front line staff; lack of training, equipment)

Recommendation

- Establish an arms length 'Guidance Committee' to ensure credible, science-based decision making.
- Who: MOE management and NGOs and private stake holders (consultants, labs etc.) and front line MOE staff and Municipalities and public stake holders.
- Why: Long term (10 years+) planning, unbiased knowledge-based decision-making, Inclusive of stake holders and independent of politics.
- Auditing and testing of private labs by the MOE.
- Adequate resources for high quality testing
- Training and empowerment of staff.
- Include front line workers in decision-making and actively seek expertise.
- A capital budget for equipment over the LT not tied to programs.

Problem: Workload/crisis management

Recommendation

- More resources are needed for:
 - Staffing: more staff available to fill in for response staff (For example, 5-6 super techs like xx). Funds for training
 - Equipment - more funds for additional new equipment to be used in routine and emergency response.
- A response plan developed (for the laboratory)
 - a planned emergency response protocol for management to effectively deal with resource allotment. For example, staff might be moved around in a crisis, or new people contracted. There is no policy at present to do that.
 - less red tape
 - 'slush' fund for monies to contract people or take other measures required.

Problem: Diminishing scientific expertise in lab; lack of succession planning

Recommendation

- Establish a formal training plan to ensure currency and to fill gaps.
- Establish training needs based on positions.
- Establish succession planning.

Problem: Mandate unclear

Recommendation discussion:

Note that this was not developed as a formal recommendation by the group. However a discussion towards the end of the workshop made the following points:

- the mandate needs to be clarified
- the MOE should be a regulatory body which audits other labs, develops methods/lab expertise and thus is a reference centre for other labs, and is also a production lab which does the high quality testing that the municipalities rely upon. The MOE is in fact playing all of these roles due to its past experience and present expertise.
- To play all/any of these roles effectively, more resources are required overall. Increased staff are needed - both productive and scientific. In the 'cadillac' system, we would like to see provincial labs. Government is still perceived as 'gold standard' - proven by the understanding that the government provides the best standard sample for legal proceedings.

ADDENDUM: Resources Estimate

The following report was done following the workshop to estimate workload and resources.

This estimate is based on the assumption that we are going to be both a reference centre and a production laboratory and that the appropriate field staff and inspectors are in place to accommodate **all** program increases.

PRODUCTION:

The projected workload in our section is a major increase in waters and sewage analysis and a minor increase in other things like soil, vegetation, fish and air.

Water treatment plants that have been studied in the past number around 80 and were under the DWSP program. After the implementation of the drinking water regulation 549/00, the number of plants to submit samples has gone up to approximately 600 under DWSP and SWIP. The projected number of large and small water works submitting samples in 2001 will be around 2000 or more (some think 10,000).

In addition to water works, I believe it has just been announced that 400 sewage plants across the province will be entering a sampling and analysis program of their own.

Based on the above, the workload increase in water and sewage analysis for our section will probably **double or triple** within the next year.

RESOURCES NEEDED:

Staff - 2 additional technologists for sample preparation and analysis.
- 1 scientist for program co-ordination

Cost - increase in DOE

Equipment - 2 new ICP-MS spectrometers for water analysis (one to replace an old unit 12 years old, one extra for additional workload) - approximate cost - \$600,000.00

- 1 ICP-OES - for sewage analysis - approximate cost - \$200,000.00

- 1 mercury analyzer - \$50,000.00

- 2 Atomic Absorption Spectrophotometers (to replace old existing units - 20 years old). - approximate cost - \$70,000.00

REFERENCE CENTRE

In order to fulfill our reference centre mandate, client requests come from other divisions for special analysis or environmental studies.

I will list **only two** (there are more) examples of requests from the Customer Analytical Method Request Report 2000 and staff and equipment needed for this.

Organo-Tin compounds in Water - P Kauss - EMRB

Staff - Scientific expertise is already in place, but would need one junior scientist to do bench work. DOE money

Equipment - GC-AED analyzer - approximate cost - \$ 150,000.00

Metal Speciation Studies (includes several projects AsIII and AsVI in drinking water, Se VI in drinking water, CrVI in air). - EMRB, Operations Division.

Staff - Scientific expertise is already in place, but would need one junior scientist to do bench work - DOE money.

Equipment - HPLC - ICMS - approximate cost \$ 200,000.00
or HPLC- Conductivity - approximate cost - \$ 100,000.00

If we are proceeding as a regulatory body, absolute analysis, dispute resolution between laboratories, and standard setting is important. In order to do this we will need the best available technology. In our case, and ICP- High Resolution Mass Spectrometer should be purchased - cost - \$750,000.00.

This is a lot of money relative in our terms (but look at what the government spends in other areas for non-important things), however, based on the above assumption that we are leaders in the field and can provide quality environmental protection, I think it is a necessity.

Workshop #2 – Recommendations

Problem: Lack of staff involvement in decision -making - leading to technically inadequate policy

Two groups identified this weakness as a priority to be addressed. Participants felt that the Recommendation were consistent. Both talk about committee(s) that involve/consult with staff, are controlled by the MOE technical/scientific staff and the need for committees that are structured and accountable for producing a practical product. The veto for staff is important. The committee needs to be a standing committee, not ad hoc and retain independence, not be controlled by the director of water policy. (Similar to the red tape committee)

Recommendation

- All new water policy or revisions to water policy should be submitted to a Water Policy Technical Assurance Committee comprised of staff elected by peers. The Committee will have a vetos mandate to send policy back for revision.
- Who: MOE
- Why: Legislated mandate for MOE
- Resources: One person year

Recommendation

- Scheduled/regular ‘water’ workshops to identify water issues and develop Recommendation by staff.
- Representation of professional (elected) staff on all water committees.
- Establish Ecosystem/Watershed Management committees involving staff, chaired by MOE, and MNR, MMAH, public, business, OMAFRA, municipalities.
- Establish interministry ‘water management committee’, chaired by MOE, to include MMAH, OMAFRA etc.

Resources Required:

- Expertise in geospatial analysis (distribution and depth, statistical analysis)
- Budget for equipment per work station for professional staff
- Allocation of professional staff to carry out committee work, compliance work, abatement work (EOs), approval work, assessment work.
- Include water management work tasks, programs, studies, pilot testing, software testing, software evaluation in workplans.

Problem: Lack of an inventory of groundwater and surface water resources

A lot of watersheds in Ontario are not intensively used. However, many in Southern and Eastern Ontario are heavily used by different groups. The University of Waterloo has the best groundwater program in the world and is not being consulted by the provincial government. To allocate water appropriately and fairly you have to know the quality and quantity of what’s there, particularly in areas of high usage.

Recommendation

- Establish a quality and quantity groundwater monitoring network and surface water base flow network, in areas of high usage. This monitoring network would identify ground water recharge and discharge areas, together with groundwater residence time and change in groundwater storage, at a level which can satisfy ongoing peer review by the university of Waterloo groundwater centre of excellence now referred to as Crestech which represents all the contributing universities in Ontario. Concerns surrounding over allocation of water resources, mobilization/remobilization of subsurface contamination or potential for impact to other users or environmental features could then be effectively addressed through the permit-to-take-water program, under #.34 OWRA.
- Establish such a program to be carried out from the MOE regional office:
 - hire dedicated hydrogeologists, hydrologists and technicians
 - hire dedicated GW technician
 - Keep program within MOE regional office to ensure the required flexibility (limited to no partnerships) Note that this is because flexibility is required and often a partnership does not give you that flexibility. In Aurora, 13 wells went dry because of heavy groundwater use in the area. To understand the cause of such a problem one must be able to access or move monitors as required. For

example, you might need to pull up probes and place them in strategic monitoring areas to identify the scope of the problem and the cause. Partnerships may not be appropriate for a regulatory agency.

Who: MOE should address this because:

- GW and SW are a shared resource.
- MOE has the mandate/responsibility under OWRA and EPA to manage the water resources.
- MOE administers S.34 of OWRA - permits-to-take-water program
- Watershed boundaries are not co-incident with political boundaries.

Resources required:

- 1 person (MOE regional hydrogeologist) per regional municipality in high pressure areas
- Improved field equipment capabilities (depending on pressures)
- 1 technician (MOE regional GW technician) dedicated to regional program.

Comment from one participant in feedback to the report

There also needs to be an emphasis on the broader issues associated with the water management in Ontario which involves the management for flood control, for establishing controlled water levels for regulated rivers and lakes as well as boundary waters treaties. These issues are shared between Federal, provincial, CA's and municipalities and it is here that the partnerships and collaborative funding are essential to implementing water management systems. The systems referred to as under the jurisdiction of the Regional operations have a different function and requires the highest quality of data verification and accuracy all together, although conceivably might be integrated with the broader scale water management issues.

Because of the forgoing comment I would recommend representatives for each of the regional offices and other relevant MOE offices for each of the broader scoped activities to include groundwater technical staff representation. The staff involved should be instrumental in co-ordinating the technical input by their specialties and should be set up to communicate their discussions with a broader audience.

Problem: Lack of experienced EOs to deliver water inspection program in its present form (one inspection per year is impossible)

Recommendation

- Operations Division (OD) has to identify this as a priority (major) in the workplan-that plants need to be inspected very year. (It used to be once every 3-4 years)
- OD has to review the status of staff availability (experience/qualified) to deliver. (We don't presently have the resources to do it). Direction for mandatory involvement of professional staff to cases handled by EOs has to be given. Effective EO status has to be reestablished to professionals to handle professional issues.

- Assess needs for succession planning. Stress proper initial training of new staff. Build in mentoring of new staff, refresher and continual training.
- Quality control of regulation: SAC/Notification procedures, Abatement inspection reports and lab. (For example -re the clearing of chlorine residuals - there is nothing presently on the form that deals with daily compliance - asking for highest and lowest levels, for example. This should be on the form.)
- Study regulatory effectiveness of other similar water inspection programs with staff input.

Who: MOE - it's our mandate

Resources required:

- Senior management willingness to work together with field staff to provide the best program possible
- Staff allocation. EO#4's, full time (not contract), qualified, experienced officers, # as determined by OD workplan
- Time - set aside # of training days and staff for all staff.
- Resources for sending MOE staff to outside conferences for technology transfer

Workshop #3 – Recommendations

Problem: Lack of checks and balances between agencies/lack of overview

Recommendation

- One agency (the MOE) be responsible for the entire system, “cradle to grave” with an overview function (audit).
- Components would be as follows:
 - Source - an aquifer or surface water
 - Intake (well) - comply with Reg 903 and be safe
 - Treatment - combination of chlorination and filtration
 - Distribution system - swabbing, deadends/diameters etc.
 - Monitoring/Reporting/Notification/Certification

Who:

The MOE has the responsibility. Owners, private labs, municipalities, consumers, district health units all have a part to play.

Why:

To ensure that there is an effective multi-barrier approach to communal water so that if any one, two or three components of the system slip below standard, people won't get sick.

Resources required:

- hundreds of millions of dollars to complete and implement aquifer source and well-head protection plans – as a one time expense spread over a number of years.
- treatment upgrades will require millions
- potential loss of property value with wellhead protection plans needs to be taken into account.
- database containing all water quality information
- meetings at least annually with all affected parties.
- mandatory program requires a fund to allow for compensation (relocating business, restricting land use, property value etc.)

Alternative to prevention:

When the system goes bad, as it did in Walkerton (and as it will more frequently if nothing is done), it costs hundreds of millions of dollars, human lives and the ongoing emotional cost of the effect of such an event. For example, I heard a six year old in Walkerton say: “It’s okay, Mommy. Grandma put something in the water before I had a bath so I won’t get sick and die”. Public confidence in the system is seriously eroded and very difficult to restore. No limit to pay-out required in out-of-court settlement. Pro-active contingency plans should be required so that system operators/owners/users are fully aware of the cost to replace the source if it becomes contaminated.

Problem: Lack of wellhead protection plans

Recommendation

- Legislation to make wellhead protection mandatory. (Note that the Safe Drinking Water Act in the United States already does this. It also mandates an audit of the water supply system.)

Who:

- MOE make the legislation
- MOE provide short term funding (using the Blue Box model where the earlier you implement the more funding you get)
- MOE provide templates
- Municipalities conduct studies and hire consultants as required
- Municipalities implement studies after MOE approval and audit

Why:

To ensure that lack of source water protection does not kill you!!

Tries to keep high risk land use activities away from the water supply.

Resources:

- Hundreds of millions of dollars
- 20 new permanent staff MOE wide (including ground and surface water)

Time frame:

Within 5 years all communal water supplies should have this in place.

ISSUE to flag: How to deal with protection of small communal systems where the land causing the problem belongs to someone else. Depending on risk, work with owners to encourage “best management practices” or fund buy-outs of uses that are clearly unacceptable.

Problem: Lack of technical and scientific skills in management

This has led to a lack of leadership in the MOE.

Recommendation

- Make technical requirements a necessity for the ADO, District Manager, Assistant Director, and Director as well as Tech Support Manager.
- Mandatory training for all of the above, such as technical training on new regs.
- Have management’s Performance Measures (including the bonus system) reviewed with an emphasis on meeting standards which reflect environmental rather than political issues.

Problem: Lack of Human Resources (Staffing)

The trend in the Ministry is towards short-term contracts. What is needed are long term permanent staff with a commitment to the environment and the MOE.

Recommendation:

- The following additional MOE staff be hired:
 - For proactive work : wellhead protection (min.) more. 2 hydrogeologists per region
The SW region needs
 - Inspection staff (inspection and follow-up) 2 EO4’s per district
 - Outreach/Communication with plant operators* resp. 2 EO4’s per district (overlap with inspection staff.)
 - Approvals/engineers/staff (short-term to deal with reg requirements) ?
 - Administrative staff (EDRIS, ORIS, ADO requests , briefing notes, filing, tracking) 1 per district
 - Require technical skills at senior mg’t levels

*We used to touch base with operators to see how they were doing and give some technical support when necessary.

Problem: Private communal systems (lack of clarity/broad brush approach)

All systems are treated the same - Thunder Bay, Toronto, a trailer park. We want to make things more doable for small operators so they can meet the reg instead of running up an expensive bill. For example, one staff informed a small operator of the new reg requirements that will cost them \$10,000.

Recommendation

- Establish clear definitions of what is private communal versus ‘small systems’.
- Address regulatory gaps to provide safe water to all (ie: 75 residences, 250,000 l. per day).
- Recognize different size systems within the group and tailor needs. (i.e operator certification and training)
- Carry out an inventory of all systems.

Who:

MOE should address this under OWRA

Health units or municipalities should address the ‘small systems’ they have the resources and contacts to cover (as they presently do).

Resources:

Depends on demand (i.e. # of systems)
one/area in the north at EO4 level

Problem: Lack of small system regulation

Recommendation

- Clearly define different systems - large and ‘small’ systems
- Rewrite the regulation and develop applicable standards for both large and small systems.
- Make specific regulations to recognize the differences.

Who:

MOE should implement the new regulations. Could double up on inspections - the water system and the septic system inspected on the same visit.

Resources:

Financial resources to implement the regulations
Staffing to implement (EO4)
Should be enough tools to do the job (e.g. vehicles)

Workshop #4 – Recommendations

Problem: Resource allocation/management

Lack of resources and activities that affect water issues.

Recommendation

- Increase field staff (permanent positions), specific to the District. Contract staff are not sufficient. We need expertise in permanent positions.
- Permit field staff specialization. Presently, field staff with specializations are not being well utilized - their expertise is not available to the rest of the staff. At the moment, the field staff are inspecting water plants one week, air inspection the next etc. Gaining a level of knowledge and comfort on all the issues is time consuming and not realistic given work load. Specialization within abatement staff would work somewhat like the SWAT team*, but based in the region.
- Focus on the real sources of problems. 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.
- Clarify boundaries with other agencies and delegate authority/responsibility where appropriate. For example, the new reg has inappropriately shifted the responsibility for health concerns to the MOE.
- Proper support and improvement in data management. For example, eliminate the redundancy of data entry (Occurrence Reporting Information System (ORIS), Inspection report, Interim Inspection System, STAR (system for tracking activities and resources) Enforcement Tracking Information System (ETIS) etc.) If we check a violation in one system, it should carry over into the others. Ultimately it is expected that IDS will accomplish most of this.
- Shift ‘people hours’ from clerical work to field work. Every district used to have a clerk to log complaints. We need that person to field these complaints as they come in.

*The SWAT team is to come up with numbers, issue tickets. They are going after non-compliance. The problem with the SWAT team is that it is centralized and lacks local knowledge.

Problem: Lack of Mandatory Wellhead Protection

Currently voluntary with limited resources allocated.

Recommendation

Each municipality relying on wells should be required to develop a source protection plan involving land-use controls.

Who:

- Municipalities authority -Nutrient Management Plan (NMP) bylaw; they have zoning authority
- MOE - authority to develop a regulation (Water Policy Branch./Land Use Policy Branch.-Source Protection Plan)
 - OMAFRA – nutrient management plan

Resources:

MOE: resources to develop the new reg, guidelines and standards, including any compensation provisions; resources for monitoring.

NOTE: A regulation would force municipalities to think about wellhead protection. MOE resources for monitoring are needed since we cannot rely on municipalities to do this. For example, in one municipality the person who developed the watershed management plan was the first to violate the new regulations. There are also good examples - Waterloo is ahead on land zoning. It may require reinstating MOE responsibility to review official municipal plans.

Problem: Need for private and small waterworks well inspection

This is not covered by current legislation

Recommendation

A specialized group be developed within the MOE to provide regular inspections of private wells to be triggered by property transfer or at minimum frequency (e.g. every 5 years) or well construction.

Who:

MOE responsible for Reg 903 enforcement.

Could be implemented by another agency like TSSA or OCWA under MOE aegis.

Resources:

- Regulation required
- User Fee to pay for it. For example, before a property transfer could go through, the well would be inspected and a fee charged. This would transfer the liability.
- Staff (guess @ 200 – but this would need to be determined)

Other

Return to organization by area (water etc.)

In the discussion, the participants agreed that the specialization which existed prior to the reorganization (where there was a water group) was more effective way of organizing the work.

Clarify the MOE mandate

There was also a final discussion about the need to clarify the MOE mandate. For example, there is inconsistent application of enforcement philosophy across the Ministry. (i.e. ignore violators, encourage dischargers to comply, vigorously prosecute violators). One staff person who wanted to take a firm line on a compliance problem with a 'client' was told "all you care about is the environment" by a supervisor who preferred to negotiate a softer position.

Workshop #5 – Recommendations

Problem: Lack of one authority

Presently we have MNR, OMAFRA, MMAH, CA, Municipalities involved in water management in the province.

Recommendation

- Establish a clear Authority for water that looks at the entire watershed on a watershed basis.

Who:

The MOE, or a new Ministry of Water (MOW)

Resources:

Government commitment to such a change

Notes from the discussion:

- Question raised as to how a provincial agency can deal with what is essentially a local resource. If government is so far removed from what is actually happening in the field, they we'll never achieve anything. Some agreement that a provincial agency needed to provide oversight, but should also work with local agencies/enable local bodies to achieve joint goals.
- Agreed that the current government model doesn't work. Perhaps we could look elsewhere for ideas, such as in Minnesota where 30 (approximate number) local agencies look after the watersheds, with one government body responsible for all of the agencies. The point here is that there may be some better governance models to follow – other provinces and states should be examined to find a better way of organizing the management of water resources in Ontario.
- Most rural areas in the province haven't the resources to manage their watershed and look to the province for help. Another issue is that sometimes people locally are too directly involved and can't make the necessary decisions.

Problem: Lack of senior management support to field staff

This combines several of the weaknesses. Over the last several years there has been too much interference (reports, briefing notes, STAR etc.) which stops us from doing our jobs. One problem is that the data is being collected, but without any quality control and the data is not used for anything.

Recommendation

- Involve field staff in meaningful policy and procedure development.
- Stop assigning inexperienced policy people to critical policy positions.
- Use experienced people to inspect critical facilities. There is lack of appreciation of what is required to do the field job. For example, hiring 25 out-of-school EO2s to inspect the most sensitive complex facility - STP/WTP

**Problem: Reactive, rather than proactive approach to water quality protection.
Value of the resource not recognized**

Recommendation

- Dedicated abatement staff be hired in the MOE to deliver new DW regulation: 2 per district/area office. With more staff, key issues like protecting the watershed will get addressed.
- Increase the technical support staff in the MOE - 4 per regional office.
- Re-establish the Water Resources Branch to provide province wide, watershed based applied science (e.g. aquifer mapping for protection and regulation.)

Who: MOE

Problem: Issues Management

Recommendation

- Expose the problem. Taxpayers need to know that people making \$70-80,000 per year spend their time writing briefing notes or getting things into the correct format.
- Develop a policy which delegates specific responsibilities to junior managers or staff. For example, if there is a small spill in a creek, upper management doesn't need to know. To clarify, risk management principles should be employed to determine a cut-off below which MOE staff will not provide extensive briefing materials to the ADM's office and/or Minister's office. The higher ups don't need to know about every little detail about minor field incidents and don't need to control every minor situation. Some protocol should be established that defines how a lower environmental risk translates into a lesser need to inform and involve senior management.

- Several participants expressed the opinion that the MOE is so dysfunctional that it would be best to abolish the Ministry, break it up into smaller units, start again. Given its performance, why should the MOE deserve to be at the top of the water management hierarchy? Why should the same bad managers be given additional resources to use/abuse? MOE's problems go far beyond needing additional resources.

Problem: Poor understanding of the resource/lack of ecosystem planning and big picture overview

It is convenient to follow a political agenda in the absence of information.

Recommendation

- Multi-agency and NGO management of research (external/arms length)
- Hire it out to get baseline understanding of effective performance measures to assess ongoing use of the resource from a standpoint of environmental protection. This might involve a group including a professor, a groundwater expert etc. Once we had the research to give us an overview of the resource, then we could move on to look at how best to manage it.

Who:

MOE to contract out the research

Oversee through RAC (Research Advisory Committee)

Discussion

- Need to look at how to involve the public at a second stage in the process.
- Re MOE's role: MOE would not do the work but would oversee it. We have staff who could do this, but it is not practical to have them drop everything and do it. Could use the Minister's Research Advisory Committee which used to provide funding for research. Specific research is funded by the MOE and the same idea could be applied here.

Workshop #6 – Recommendations

Problem Lack of integration of compliance function (IEB, Abatement, TSS)

Recommendation

- Improve communications with respect to priorities to deal with ongoing, long-term compliance issues without any consultations. For example, Haley Industries is a long term problem which involves all media: air, ground and water.
- Ideally, there would be a directive in the region that this priority list has to be resolved. (It might include waste management issues, leads to ground water contamination, leads to drinking water contamination). A district in a region would take the lead and pull together a team and set up a schedule to deal with the case. Different teams would deal with different cases. It would work like a forensic audit, dealing with long term issues that have never been resolved.

- Walkerton is a good example - the type of study that was done after the tragedy. Abatement and tech support were involved with IEB to integrate it.

Why:

To solve long term compliance issues. This would dispense with band-aid solutions and lead to effective environmental protection

Who: Role

- MOE internal process with abatement section and liaison with IEB and Tech Support
- Background information must be made available to all partners.
- IEB and abatement and Tech Support Managers set the 'tone' and the 'directive'

Resources

- None

Problem: No water management system

Recommendation

- Establish a water management system. This is needed at an interministry level and intraministry to promote water management.
- Needs a long term vision and plan. A mission statement (statement of environmental values revisited), definitions of ecosystem and natural function (so no one can twist it to their purposes), and priority of uses (fish or people guideline).
- Needs multi-ministerial participation. (MNR, MMAH, OMAFRA, MOE etc). with core teams for each Ministry. Harmonization of SEU - Policies, Guidelines etc., harmonize compliance and enforcement to give more clout.
- An example: Bill 52. MOE staff looked at a draft in its final stages and identified some serious problems with it. Someone from MOE had looked at it, but not someone who had ground level experience. They talked about quarries below water where they intersect with the aquifer. When you hit the aquifer the water spurts up. If they go into the water table, they are going to have the quarry fill up with water and drain wells in the area. That issue was missing. This is why we need time to develop regulations, policies and guidelines, and why we need knowledgeable, front line staff involved in reviewing them.

Resources:

Need those active (working on the ground) in the area of water on committees. It should not be a rewards program.

- Commitment by all Ministers, Cabinet and the public
- Funds, resources, people

Within the MOE: internal commitment

- define
- allow development time
- policies reg guidelines
- training and outreach - MOE responsibilities and role
- identify hot areas - prioritization of topics, areas of focus - guideline
- make a -plan and stick to it

Problem: Lack of leadership/staff consultation;

Recommendation

- Training of management staff is required to help staff do our jobs as best we can
- Need strong leadership, long-term vision, problem solvers, motivators. So management staff need leadership training.
- Reality is resources are limited - help and support staff to deal with this
- Consult with staff regarding program development and direction There has not been a formal process for staff consultation.
- Strong water policy direction and management, not just politically motivated. For example, we are struggling with bio-solids utilization but we need a disaster to get action on bio-solids. Val Gibbons spoke to the issue. You don't want anyone in the region to know about policy because they are worried about leaks. Staff are not allowed to collaborate. We need a policy development process that links to staff. We did have a committee for a portion of the Provincial policy statement - a document from Municipal Affairs and Housing. It has a section in there re the protection of ground and surface water. I am on that committee but it has never met. We do have a provincial policy statement. In every official plan, there should be policies for the protection of ground and surface water. The committee is supposed to give guidance to municipalities on this. For example, what kind of well head protection? What kind of work does the municipality need to do to identify the types of activity, such as identifying groundwater recharge areas and the types of policies to put into place to protect groundwater. Now there is another planning layer - the ADO. When there was the water resources branch, you had one stop shopping. Now all is dispersed.

Problem: Lack of site specific planning

Recommendation

- The MOE should review site specific planning applications including hydrogeology studies, impact (nitrate) assessments, lake capacity studies, lake impact assessment studies, servicing scenarios and in all plans, policies for the protection of groundwater and surface water.

- The provincial agencies should lobby to get MOE back into the planning process. The private sector would support this initiative. MOE staff get a lot of calls/complaints about the planning decisions that are being made.

Role of the MOE:

To do the planning.

Resources

- Not many changes are required.
- More technical staff to speed up the process.
- More 'partners' involved in the planning (for example, municipalities, CAs, OMAFRA, MNR - on a watershed basis).

Benefits

- Proactive - really protects the water resources. If we go into a lake, we go to evaluate what sort of development it can take. We suggest regulations such as all lots develop 30 meters back, a vegetative buffer etc. It has to be done up front, and then backed up by the municipalities with by-laws and enforcement.
- B.C. went this route (downloading) and then returned to provincial involvement in site specific planning.
- Small municipalities don't have the resources, and the technical staff to do the job.

Problem: Reactive rather than proactive; lack of public education and outreach

Recommendation

Proactive commitment within the MOE to an outreach/public education program.

- Each program and Unit responsible (ie region, EBR office) to:
- define targets (municipalities, farmers, schools, businesses, other Ministries etc.)
- provide incentives (carrot first and then stick)

Clear concise communications and explanations

- web page (provincial and regional), handouts, public information meetings
- how water legislation works together (MOE and others)
- how activities affect water quality and quantity and what everyone can do about it - not just individuals
- about the water cycle and points along the cycle where the resource can be affected
- what falls under what legislation (who does what)
- how to communicate effectively with government
- relative importance of impacts on water resources

Resources:

- publications kept up-to-date and timely
- a contact point
- resources for staff, activities, publications

Benefit:

Less wasted time in staff response to individual and frivolous/minor problems.

APPENDIX B: PROGRAM ACTIVITIES OF AN ENVIRONMENTAL OFFICER

Program	Activity
	Approvals - Air & Noise
Air	Charges or P.O.A.'s
Air	Compliance Monitoring
Air	Control Documents
Air	General (No related Specific Activity)
Air	
Air	Inspections - Refrig./Ozone Depleting Sites
Air	Inspections - Vehicle Emissions
Air	Investigations - IEB
Air	Noise By-laws, Land-use, EAs
Air	Notifications (ORIS)
Air	Outreach
Air	Policy & Program Improvement
Air	Pollution Incidents Reports (ORIS)
Air	S.T.A.C.
Air	Spills (ORIS)
Air	Surveys/Impact Assessments
Air	Training
Attendance	Attendance
Attendance	Attendance
	Central Audit Team (CAT)
Contaminated Sites	Clean Up Projects via Security Account
Contaminated Sites	Compliance Driven Restorations
Contaminated Sites	Control Documents
Contaminated Sites	General (No related Specific Activity)
Contaminated Sites	Investigations - IEB
Contaminated Sites	Lender Liability Agreements
Contaminated Sites	Notifications (ORIS)
Contaminated Sites	Notifications of Contaminated Sites
Contaminated Sites	Outreach
Contaminated Sites	Policy & Program Improvement
Contaminated Sites	RSC Received
Contaminated Sites	Spills (ORIS)
Contaminated Sites	Surveys/Impact Assessments
Contaminated Sites	Training
	Class E.A.'s and ESR Reviews, Bump Ups
Environmental Assessments	Declarations and Designations
Environmental Assessments	General (No related Specific Activity)

Program	Activity
Environmental Assessments	Individual E.A. Reviews
Environmental Assessments	Outreach
Environmental Assessments	Policy & Program Improvement
Environmental Assessments	Terms of Reference Reviewed (TOR)
Environmental Assessments	Training
Multimedia	Corporate Support
Multimedia	Customer Service Complaints
Multimedia	EBR
Multimedia	FOI
Multimedia	Front Counter
Multimedia	General (No related Specific Activity)
Multimedia	Outreach
Multimedia	Policy & Program Improvement
Multimedia	Training
	Approvals - Pesticide Licence/Renewal
Pesticides	Approvals - Pesticides Permits
Pesticides	Charges or P.O.A.'s
Pesticides	Control Documents
Pesticides	General (No related Specific Activity)
Pesticides	
Pesticides	Investigations - IEB
Pesticides	Notifications (ORIS)
Pesticides	Outreach
Pesticides	Policy & Program Improvement
Pesticides	Pollution Incidents Reports (ORIS)
Pesticides	Training
	Approvals - Quasi
Planning	General (No related Specific Activity)
Planning	Hearings
Planning	Lawyers' Letters
Planning	Official Plan Ammendments Reviewed
Planning	Official Plans Reviewed
Planning	Outreach
Planning	Policy & Program Improvement
Planning	Pre-Submission Consultation (PSC)
Planning	Severences Reviewed
Planning	Subdivision Plans Reviewed
Planning	Surveys/Impact Assessments
Planning	Training
	Contingency Planning
Pollution Prevention	General (No related Specific Activity)
Pollution Prevention	Green Industry Projects
Pollution Prevention	MOU's

Program	Activity
Pollution Prevention	Outreach
Pollution Prevention	Policy & Program Improvement
Pollution Prevention	Pollution Prevention Projects
Pollution Prevention	Site Visits
Pollution Prevention	Training
	Approvals - Industrial Sewage Works
Sewage – Industrial	Approvals - Sites (Part V)
Sewage – Industrial	Approvals - Systems (Part V)
Sewage – Industrial	Charges or P.O.A.'s
Sewage – Industrial	Control Documents
Sewage – Industrial	General (No related Specific Activity)
Sewage – Industrial	Inspections - Biosolids Sites
Sewage – Industrial	Inspections - Clean Water Reg. (MISA)
Sewage – Industrial	Inspections - Non-MISA Facilities
Sewage – Industrial	Investigations - IEB
Sewage – Industrial	Notifications (ORIS)
Sewage – Industrial	Outreach
Sewage – Industrial	Policy & Program Improvement
Sewage – Industrial	Pollution Incidents Reports (ORIS)
Sewage – Industrial	Surveys/Impact Assessments
Sewage – Industrial	Training
Sewage – Mun., Priv. & Comm.	Approvals - Process/Transfer/Disposal (Part V)
Sewage – Mun., Priv. & Comm.	Approvals - Sewage Works
Sewage – Mun., Priv. & Comm.	Approvals - Waste Management Systems (Part V)
Sewage – Mun., Priv. & Comm.	Approvals/Ammendments to Schedule - Land Application (Part V)
Sewage – Mun., Priv. & Comm.	Charges or P.O.A.'s
Sewage – Mun., Priv. & Comm.	Control Documents
Sewage – Mun., Priv. & Comm.	General (No related Specific Activity)
Sewage – Mun., Priv. & Comm.	Inspections - Biosolids Sites
Sewage – Mun., Priv. & Comm.	Inspections - Hauler/Septage Stor./Disp. Sites
Sewage – Mun., Priv. & Comm.	Inspections - Municipal S.T.P.'s
Sewage – Mun., Priv. & Comm.	Investigations - IEB
Sewage – Mun., Priv. & Comm.	Notifications (ORIS)
Sewage – Mun., Priv. & Comm.	Outreach
Sewage – Mun., Priv. & Comm.	Policy & Program Improvement
Sewage – Mun., Priv. & Comm.	Pollution Incidents Reports (ORIS)
Sewage – Mun., Priv. & Comm.	Surveys/Impact Assessments
Sewage – Mun., Priv. & Comm.	Training
Support	Accommodations
Support	Assets Management
Support	Clerical Support
Support	Financial
Support	Fleet Management

Program	Activity
Support	General (No related Specific Activity)
Support	Health & Safety
Support	Human Resources
Support	Performance Management Review
Support	Records Management
Support	Recruitment
Support	Systems
	Training
Waste – Hazardous and Liquid Industrial	Approvals - Emergency Generator Numbers
Waste – Hazardous and Liquid Industrial	Approvals - PCB Reg. 362
Waste – Hazardous and Liquid Industrial	Approvals - Sites (Part V)
Waste – Hazardous and Liquid Industrial	Approvals - Systems (Part V)
Waste – Hazardous and Liquid Industrial	Charges or P.O.A.'s
Waste – Hazardous and Liquid Industrial	Control Documents
Waste – Hazardous and Liquid Industrial	General (No related Specific Activity)
Waste – Hazardous and Liquid Industrial	Inspections - Hazardous Waste Disposal Sites
Waste – Hazardous and Liquid Industrial	Inspections - PCB Facilities
Waste – Hazardous and Liquid Industrial	Inspections - Reg 347 Generators
Waste – Hazardous and Liquid Industrial	Inspections - Transfer/Processing Sites
Waste – Hazardous and Liquid Industrial	Investigations - IEB
Waste – Hazardous and Liquid Industrial	Notifications (ORIS)
Waste – Hazardous and Liquid Industrial	Outreach
Waste – Hazardous and Liquid Industrial	Policy & Program Improvement
Waste – Hazardous and Liquid Industrial	Pollution Incidents Reports (ORIS)
Waste – Hazardous and Liquid Industrial	Spills (ORIS)
Waste – Hazardous and Liquid Industrial	Surveys/Impact Assessments
Waste – Hazardous and Liquid Industrial	Training
	Approvals - Sites (Part V)
Waste – Solid, Non-Hazardous	Approvals - Systems (Part V)
Waste – Solid, Non-Hazardous	Charges or P.O.A.'s
Waste – Solid, Non-Hazardous	Control Documents
Waste – Solid, Non-Hazardous	General (No related Specific Activity)
Waste – Solid, Non-Hazardous	Inspections - 3 R's Facilities
Waste – Solid, Non-Hazardous	Inspections - MNR WDS
Waste – Solid, Non-Hazardous	Inspections - Open Waste Disposal Sites
Waste – Solid, Non-Hazardous	Inspections - Transfer/Processing Sites
Waste – Solid, Non-Hazardous	Investigations - IEB
Waste – Solid, Non-Hazardous	Notifications (ORIS)
Waste – Solid, Non-Hazardous	Outreach
Waste – Solid, Non-Hazardous	Policy & Program Improvement
Waste – Solid, Non-Hazardous	Pollution Incidents Reports (ORIS)
Waste – Solid, Non-Hazardous	Spills (ORIS)
Waste – Solid, Non-Hazardous	Surveys/Impact Assessments

Program	Activity
Waste – Solid, Non-Hazardous	Training
Waste – Solid, Non-Hazardous	Waste Management Master Plans
Water – Communal	Approvals - Water Works
Water – Communal	Charges or P.O.A.'s
Water – Communal	Control Documents
Water – Communal	General (No related Specific Activity)
Water – Communal	Inspections - Municipal W.T.P.'s
Water – Communal	Investigations - IEB
Water – Communal	Notifications (ORIS)
Water – Communal	Outreach
Water – Communal	Policy & Program Improvement
Water – Communal	Pollution Incidents Reports (ORIS)
Water – Communal	Training
Water – Ground	Approvals - Permits to Take Water (PTTW)
Water – Ground	
Water – Ground	Charges or P.O.A.'s
Water – Ground	Control Documents
Water – Ground	General (No related Specific Activity)
Water – Ground	Inspections - PTTW
Water – Ground	Investigations - IEB
Water – Ground	Notifications (ORIS)
Water – Ground	Outreach
Water – Ground	Policy & Program Improvement
Water – Ground	Pollution Incidents Reports (ORIS)
Water – Ground	Spills (ORIS)
Water – Ground	Surveys/Impact Assessments
Water – Ground	Training
Water – Surface	Approvals - Permits to Take Water (PTTW)
Water – Surface	Charges or P.O.A.'s
Water – Surface	Control Documents
Water – Surface	General (No related Specific Activity)
Water – Surface	Inspections - PTTW
Water – Surface	Investigations - IEB
Water – Surface	Monitoring Stations Operated
Water – Surface	Notifications (ORIS)
Water – Surface	Outreach
Water – Surface	Policy & Program Improvement
Water – Surface	Pollution Incidents Reports (ORIS)
Water – Surface	Spills (ORIS)
Water – Surface	Studies - Watershed
Water – Surface	Surveys/Impact Assessments
Water – Surface	Training

