AGENDA

Mississippi-Rideau Source Protection Committee

Date: June 2, 2011
Time: 4 pm
Location: Perth Civitan
6787 County Road 43, Perth

Welcome and Introductions			
1.0	a. Agenda Review b. Notice of Proxies c. Adoption of the Agenda (D) d. Declarations of Interest e. Approval of Minutes – May 5, 2011 (D) ► draft minutes attached as a separate document f. Status of Action Items – Staff Report Attached (D) …… g. Correspondence – None……	**Pg.** 1	*Chair Stavinga*
Source Protection Plan			
2.0	**Source Protection Plan Development –** Staff Report Attached (I) …… Staff will update members on policy development progress	4	*Sommer Casgrain-Robertson*
3.0	**Draft Policy Ideas –** Staff Reports Attached (D) Members will consider approving draft policy concepts for the following drinking water threats and directing staff to undertake early engagement: a. Liquid Fuel (e.g. gas stations, marinas, on farms, for heavy equipment)..... b. Aircraft De-icing……..	 12 23	*Sommer Casgrain-Robertson*
Assessment Report			
4.0	**Assessment Report Updates** – Staff Report Attached (D) …… Members will consider approving updates to the proposed Assessment Reports submitted to the Ontario Ministry of the Environment in December, 2010.	29	*Sommer Casgrain-Robertson*
Other			
5.0	**Community Outreach** – Staff Report Attached (D) …… Members & staff report on past activities and upcoming events and opportunities	51	*Sommer Casgrain-Robertson*
6.0	**Other Business**		*Chair Stavinga*
7.0	**Member Inquiries**		*Chair Stavinga*
8.0	**Next Meeting** – July 7, 2011, 4pm Carleton Place Arena 75 Neelin Street, Carleton Place		*Chair Stavinga*
9.0	**Adjournment**		*Chair Stavinga*

(I) = Information (D) = Decision

Delegations: If you wish to speak to an item on the Agenda please contact Sommer Casgrain-Robertson before the meeting (sommer.robertson@mrsourcewater.ca or 613-692-3571 / 1-800-267-3504 x 1147)

1.0 f) STATUS OF ACTION ITEMS

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

That the Mississippi-Rideau Source Protection Committee receive the Status of Action Items staff report for information.

Staff & Chair Action Items:

	Issue	Action	Lead	Status
1	O. Reg 903	A member suggested O. Reg 903 be added as applicable law under Ontario's Building Code	Patricia Larkin	**In Progress** Staff and members are working on a draft motion to be considered by the Committee at a future meeting
2	Salvage Yards	A member asked why private salvage yards are not identified as a waste disposal site in the provincial threats list	Mary Wooding	**In Progress** MOE will look into why salvage yards are not identified in the threats list.
3	Road Salt	A member indicated that road salt contaminated groundwater in an area with 45% impervious surface	Mary Wooding	**In Progress** MOE will look into the effectiveness of 80% impervious surface being the significant threat circumstance for road salt application
4	Home Heating Oil	Local fuel distributor and insurance experts indicated that outdoor storage tanks are much more prone to leaks than indoor tanks.	Mary Wooding	**In Progress** MOE will look into the effectiveness of basement tanks > 250 litres and outdoor above grade tanks > 2500 litres being the significant threat circumstances for fuel oil storage

	Issue	Action	Lead	Status
5	Questions for OMAFRA	Following OMAFRA's presentation at our January 6, 2011 meeting, members asked for a nutrient unit chart and clarification about setbacks from municipal surface water intakes when applying nutrients	Sommer Casgrain-Robertson	**Complete** OMAFRA staff provided a nutrient unit chart (emailed to Members) and explained there are setbacks from surface water when applying nutrients (they vary based on site conditions like slope or application method). Staff will start an Accompanying Document to the SPP and recommend the *Nutrient Management Act* contain a setback from municipal intakes like there is from municipal wells.
6	Vacant "City of Ottawa" seat on the MRSPC	Fill the vacancy on the MRSPC	City of Ottawa staff	**In Progress** City of Ottawa staff are in the process of filling this seat
7	Ottawa River Watershed Inter-Jurisdictional Committee	Encourage MOE to take the lead role in establishing an Ottawa River watershed inter-jurisdictional committee	Chair Stavinga & Brian Stratton	**Ongoing** Baird completed a proposal to revise Ottawa's IPZ-2s and delineate IPZ-1s and IPZ-2s for Gatineau's intakes. Chair Stavinga has provided this proposal to the MOE for a preliminary review and input.
8	Uranium	MVC and local Health Units work together to raise public awareness about naturally occurring uranium in drinking water	Sommer Casgrain-Robertson	**In Progress** Health Canada released a "Uranium and Drinking Water" fact sheet. It is available on their website at http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/uranium-eng.php
9	Compensation Models	Staff to collect other compensation models (e.g. Ottawa wetland policy, Alternate Land Use Services).	Sommer Casgrain-Robertson	**In Progress** Staff will build this in to the Source Protection Plan work plan.

MRSPC Member Action Items:

	Issue	Action	Lead	Status
1	Members were concerned that attendance might be low at public open houses and groups who should be involved in the process are not	Members were asked to provide Sommer with contact information for groups they feel should be involved in the process – they will be added to our mailing list.	All Members	**Ongoing**

2	OFEC Conference Calls & Training Sessions	Richard Fraser will provide the MRSPC with updates on OFEC conference calls & training sessions	Richard Fraser	**Ongoing**
3	Community Outreach opportunities	Members to notify Sommer of potential events and opportunities to engage the public about source protection	All members	**Ongoing**

2.0 Source Protection Plan Progress

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Background

Across Ontario, Source Protection Committees (SPC) are working with municipalities, farmers, property owners, businesses, industries, First Nations, environmental groups, Provincial Ministries and the general public. Together they are developing policies to prevent the contamination and overuse of lakes, rivers and aquifers that supply drinking water.

2006 to 2010

Source Protection Committees completed **Assessment Reports** that:

- Mapped local sources of drinking water (primarily municipal drinking water);
- Determined how vulnerable these sources could be to contamination; and
- Identified types of land use activities that could pose a contamination risk

2011 to 2012

Source Protection Committees must now develop **Source Protection Plans:**

- Plans must contain policies that protect local sources of drinking water (primarily municipal drinking water)
- Policies will be implemented in areas where drinking water sources are vulnerable
- Policies will address those land use activities that pose a contamination risk

Where Will Policies Apply?

Land use activities can only be considered drinking water threats if they are taking place in a vulnerable area. There are four types of vulnerable areas:

- Wellhead Protection Areas
  - vulnerable area around a municipal well
- Intake Protection Zones
  - vulnerable area upstream of a municipal surface water intake
- Highly Vulnerable Aquifers
  - Areas where groundwater is vulnerable to surface contaminants
- Significant Groundwater Recharge Areas
  - Areas where high amounts of groundwater infiltration takes place

Land use activities can only be considered a significant drinking water threat if they are taking place in the most vulnerable parts of a:

- **Wellhead Protection Areas**; or
- **Intake Protection Zones**.

These are typically areas closest to the municipal well or intake.

Only 3% of the Mississippi-Rideau region is considered vulnerable enough to produce significant threats. Maps of these areas are in the Assessment Reports which are available from staff or on our website at www.mrsourcewater.ca (Assessment Report page).

Source Protection Plans:

- Must contain policies to address significant drinking water threats; and
- May contain policies to address moderate and low drinking water threats.

What is Considered a Threat?

The province has determined that under certain circumstances the following land use activities can be considered drinking water threats if occurring in certain vulnerable areas:

- **Waste** disposal sites (including the application of untreated septage to land)
- **Sewage** storage, treatment, transmission or disposal
- **Agricultural source material** (e.g. manure) storage, management or application
- **Non-agricultural source material** (e.g. biosolids) storage, handling or application
- **Farm animal** pasturing, grazing, outdoor confinement areas or farm yards
- **Fertilizer** storage, handling or application
- **Pesticide** storage, handling or application
- **Fuel** storage or handling
- **Dense Non-aqueous Phase Liquids** (DNAPLSs) storage or handling
- **Organic solvents** storage or handling
- **Road salt** storage, handling or application
- **Snow storage**
- **Airplane de-icing**

To be a threat most of these activities must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. These threat criteria or "circumstances" are listed in provincial tables accessible on the "Assessment Report" page of our website (www.mrsourcewater.ca)

What are the Policy Tools?

While most source protection policies will manage land use activities that have the potential to contaminate drinking water, prohibition can be used as a tool of last resort to address significant drinking water threats. All policies will undergo thorough public consultation at various draft stages.

Policies to address drinking water threats can use one or more of the following tools. Some tools can only be used to address significant drinking water threats.

Policy Tools	Address Significant Threats	Address Moderate & Low Threats
Education & Outreach	√	√
Incentives	√	√
Other*	√	√
Land Use Planning	√ Must conform	√ Have regard for
Prescribed Instruments	√ Must conform	√ Have regard for
Risk Management Plans	√	X
Prohibition (under *Clean Water Act*)	√	X

* "Other" policy tools include:
  - Specify Actions (that would help implement the Plan or achieve it's objectives)
  - Stewardship Programs
  - Best Management Practices
  - Pilot Programs
  - Research

How Will Policies Be Developed?

In the Mississippi-Rideau region, source protection plans will be developed in five stages (a policy development flowchart is attached):

1. Draft Policy Ideas:
    - Municipal staff, SPC members, sector experts and staff will develop policy ideas
    - These ideas will be considered by the SPC when developing Draft Policy Concepts
2. Draft Policy Concepts
    - Staff will seek input from people/bodies who would be affected by the policy concepts and who have been tasked with implementing the policy concepts
    - This input will be considered by the SPC when developing Draft Policies
3. Draft Policies
    - Staff will seek formal comments from people/bodies who have been tasked with implementing the policies
    - These comments will be considered by the SPC when finalizing Draft Policies
4. Draft Source Protection Plans
    - Draft Policies will be compiled into Draft Source Protection Plans
    - Plans will be posted for a 35 day public comment period
    - At least two public meetings will be held to solicit comments
    - All comments will be considered by the SPC when developing Proposed Policies
5. Proposed Source Protection Plans
    - Proposed Policies will be compiled into Proposed Source Protection Plans
    - Plans will be posted for a 30 day comment period
    - All comments will be submitted to the MOE for their consideration when reviewing Proposed Source Protection Plans for possible approval

Proposed Source Protection Plans must be submitted to the Minister of the Environment by August, 2012. The following is a general policy development schedule.

		2011												2012							
	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	**M**	A	M	**J**	J	A
Policy Ideas																					
Policy Concepts																					
Draft Policies																					
Draft Plans																					
Proposed Plans																					

Policy Development Progress

As policy concepts are developed for each drinking water threat, the attached tables will be used to track:

- Policy Development Progress
- Potential Policy Effect (encourage, manage or prohibit activities)
- Potential Policy Tools (e.g. education, land use planning, risk management plan)

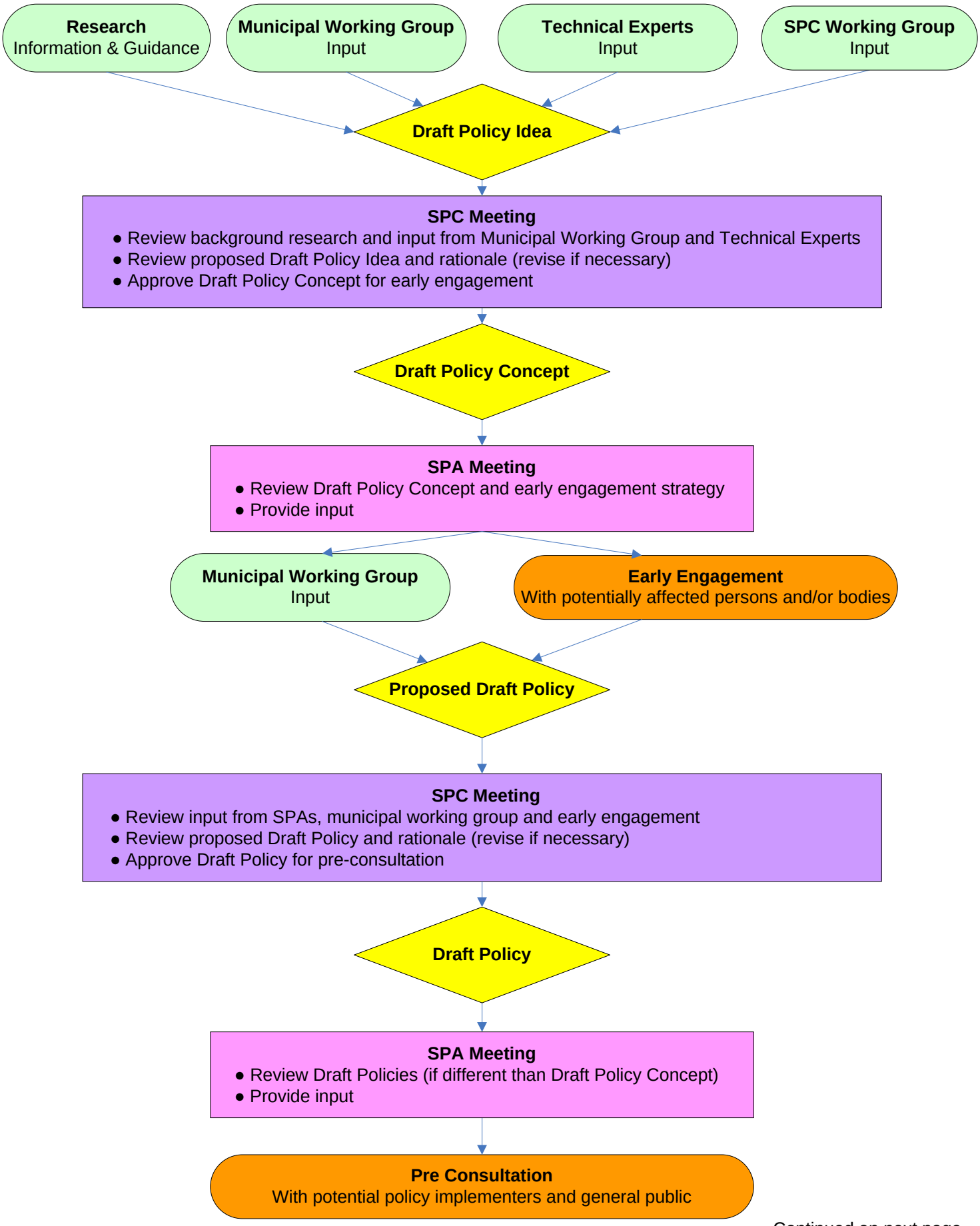
In the coming months, additional tables will be added to track:

- Potential Policy Implementers (e.g. provincial ministries, health units, municipalities)
- Potential Municipal Responsibilities (for each individual municipality)

Attachments:

- Policy Development Process
- Draft Policy Concepts: Policy Development Progress
- Draft Policy Concepts: Potential Policy Effect
- Draft Policy Concepts: Potential Policy Tools

Source Protection Plan
Policy Development Process



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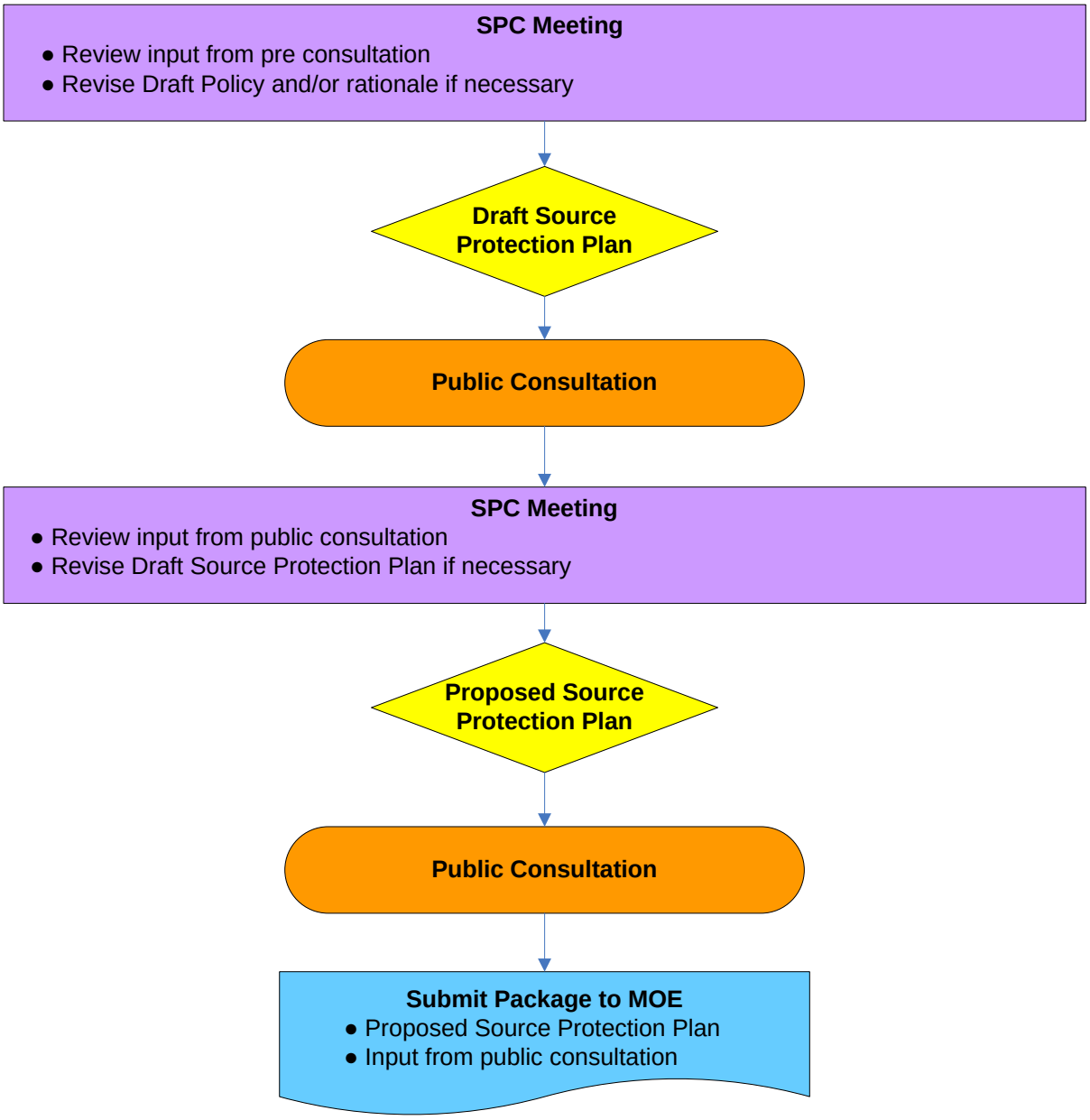


Policy Development Progress

Drinking Water Threats		Municipal Working Group (generate policy ideas)	SPC Working Group (generate policy ideas)	Local Sector Experts (generate policy ideas)	Draft Policy Concept	Municipal Working Group (review draft policy concepts)	Policy Implementers (review draft policy concepts)	Affected People (review draft policy concepts)	Draft Policy	Pre-Consultation (policy implementers & public)	Draft SPP Policy	Draft SPP (post for public consultation)
Waste	Application of untreated septage to land	✓	✓	✓	✓							1-Mar-12
	Storage, Treatment and Discharge of Tailings from Mines	✓	✓	✓								
	Landfarming of Petroleum Refining Waste	✓	✓	✓	✓							
	Liquid Industrial Waste Injection into a Well	✓	✓	✓	✓							
	PCB Waste Storage	✓	✓	✓								
	Landfilling (Hazardous Waste)	✓	✓	✓	✓							
	Landfilling (Municipal Waste)	✓	✓	✓	✓							
	Landfilling (Solid Non Hazardous Industrial or Commercial)	✓	✓	✓	✓							
	Storage of Hazardous Waste at Disposal Sites	✓	✓	✓	✓							
	Storage of Wastes described in clauses…of the definition of hazardous waste	✓	✓	✓	✓							
Sewage	Discharge of Untreated Stormwater from a Stormwater Retention Pond	✓		✓								
	Sanitary Sewers and Related Pipes	✓		✓								
	Sewage Treatment Plant Effluent Discharges Including Lagoons	✓		✓								
	Storage of Sewage (e.g. Treatment Plant Tanks)	✓		✓								
	Combined Sewer Discharge from a Stormwater Outlet to Surface Water	✓		✓								
	Sewage Treatment Plant Bypass Discharge to Surface Water	✓		✓								
	Industrial Effluent Discharge	✓		✓								
	Septic System / Holding Tank - large	✓		✓								
	Septic System / Holding Tank - small	✓		✓	✓		✓					
ASM	Application	✓		✓								
	Storage	✓		✓								
NASM	Application	✓		✓								
	Handling and Storage	✓		✓								
Fertilizer	Application	✓		✓								
	Storage	✓		✓								
Pesticide	Application	✓		✓								
	Handling and Storage	✓		✓								
Road Salt	Application	✓	✓	✓	✓							
	Handling and Storage	✓	✓	✓	✓							
Snow	Storage	✓	✓	✓	✓							
Fuel	Handling and Storage - fuel oil	✓	✓	✓	✓							
	Handling and Storage - liquid fuel	✓	✓									
DNAPLs	Handling	✓										
	Storage	✓										
Organic Solvent	Handling											
	Storage											
De-Icing												
Livestock	Management or Handling of ASM Generation (grazing and pasturing)	✓		✓								
	Management or Handling of ASM Generation (farm-yards or outdoor confinement areas)	✓		✓								

✓	Task accomplished before last Source Protection Committee meeting
✓	Task accomplished since last Source Protection Committee meeting

Draft Policy Concepts: Potential Policy Effect

Drinking Water Threats		Significant Threats	Encourage	Manage	Prohibit	Moderate / Low Threats	Encourage - Moderate Threat in WHPAs & IPZs	Encourage - HVA
Waste	Application of untreated septage to land		✓		F			F
	Storage, Treatment and Discharge of Tailings from Mines		✓					
	Landfarming of Petroleum Refining Waste		✓		F			F
	Liquid Industrial Waste Injection into a Well		✓		F			F
	PCB Waste Storage		✓					
	Landfilling (Hazardous Waste)		✓		F			F
	Landfilling (Municipal Waste)		✓		F			F
	Landfilling (Solid Non Hazardous Industrial or Commercial)		✓		F			F
	Storage of Hazardous Waste at Disposal Sites		✓		F			F
	Storage of Wastes described in clauses…of the definition of hazardous waste		✓		F			F
Sewage	Discharge of Untreated Stormwater from a Stormwater Retention Pond		✓					
	Sanitary Sewers and Related Pipes		✓					
	Sewage Treatment Plant Effluent Discharges Including Lagoons		✓					
	Storage of Sewage (e.g. Treatment Plant Tanks)		✓					
	Combined Sewer Discharge from a Stormwater Outlet to Surface Water		✓					
	Sewage Treatment Plant Bypass Discharge to Surface Water		✓					
	Industrial Effluent Discharge		✓					
	Septic System / Holding Tank - large		✓					
	Septic System / Holding Tank - small		✓	E, F	E, F			
ASM	Application		✓					
	Storage		✓					
NASM	Application		✓					
	Handling and Storage		✓					
Fertilizer	Application		✓					
	Storage		✓					
Pesticide	Application		✓					
	Handling and Storage		✓					
Road Salt	Application		✓	E, F				E, F
	Handling and Storage		✓		F			E, F
Snow	Storage		✓	E, F	F			
Fuel	Handling and Storage - fuel oil		✓	E, F			E, F	
	Handling and Storage - liquid fuel		✓					
DNAPLs	Handling		✓					
	Storage		✓					
Organic Solvent	Handling		✓					
	Storage		✓					
De-Icing			✓					
Livestock	Management or Handling of ASM Generation (grazing and pasturing)		✓					
	Management or Handling of ASM Generation (farm-yards or outdoor confinement areas)		✓					

E Indicates potential policy effect on "existing" significiant drinking water threats
F Indicates potential policy effect on "future" significiant drinking water threats
✓ Indicates public education to encourage best management practices will be combined with all policies

3.0a Draft Policy Ideas: Liquid Fuel Handling and Storage

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation 1:

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for the handling and storage of liquid fuel and direct staff to undertake early engagement with potentially affected persons and bodies.

Background

Drinking Water Threats

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff property and contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat "circumstances" are listed in a provincial table accessible from the "Assessment Report" page of our website (www.mrsourcewater.ca).

The provincial drinking water threat categories are:

- Waste disposal sites (including the application of untreated septage to land)
- Sewage storage, treatment, transmission or disposal
- Agricultural source material (e.g. manure) storage or application
- Non-agricultural source material (e.g. biosolids) storage, handling or application
- Farm animal pasturing, grazing, outdoor confinement areas or farm yards
- Fertilizer storage, handling or application
- Pesticide storage, handling or application
- **Fuel storage or handling**
- Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- Organic solvents storage or handling
- Road salt storage, handling or application
- Snow storage
- Airplane de-icing

Liquid Fuel Handling and Storage

This staff report discusses the handling and storage of liquid fuel. It provides:

- Background information about this significant drinking water threat; and
- Draft policy ideas for how it could be addressed in a Source Protection Plan.

Liquid Fuel Storage and Handling — Background Info

As noted above (in bold), one of the provincial threat categories is fuel, specifically:

- The handling and storage of fuel.

This staff report proposes draft policy ideas for **liquid fuel** (often fuel for transportation) which is regulated under Ontario Regulation 217/01 of the *Technical Standards and Safety Act, 2000*. Liquid fuel can pertain to:

- Retail outlet, bulk plant, marina, cardlock / keylock, private outlet or farm (where gasoline or an associated product is handled other than in portable containers for subsequent transmission by pipeline or transportation or distribution by tank vessel, tank car or tank vehicle).

A previous staff report (April 7, 2011) proposed draft policy ideas for **fuel oil** (often fuel for heating; also called "heating oil") which is regulated under Ontario Regulation 213/01 of the *Technical Standards and Safety Act, 2000*. Fuel oil can pertain to:

- Forced-air furnaces, boilers, water heaters or standby generators

Where is it a Significant Threat?

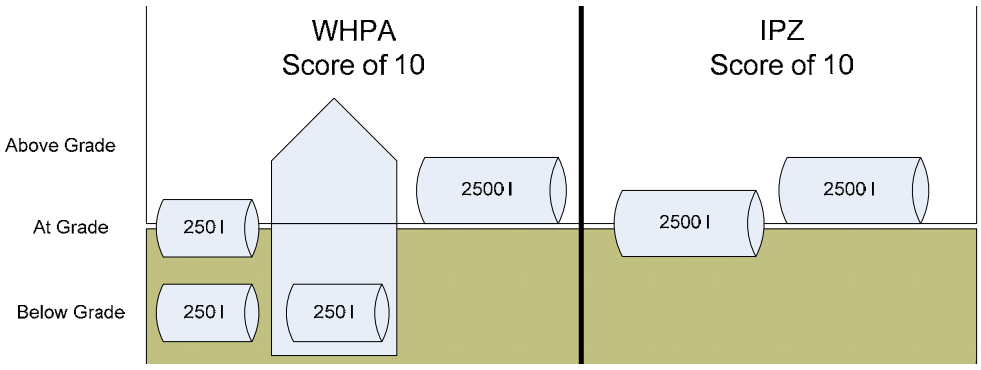
The handling and storage of liquid fuel is a significant drinking water threat:

- In the following locations; and
- Under the following circumstances.

Locations	Circumstances
Wellhead Protection Areas (WHPA) with a vulnerability score of 10	Facility* storing: • > 250 litres of fuel – below or partly below grade • >2,500 litres of fuel – at or above grade Handling of liquid fuel at a facility* in relation to the storage of: • > 2,500 litres of fuel – above or below grade
Intake Protection Zones (IPZ) with a vulnerability score of 10	Facility* (not including a bulk plant or refinery) storing: • > 2,500 litres of fuel – partly below, at or above grade Handling of liquid fuel at a facility* (not including a bulk plant or refinery) in relation to the storage of: • > 2,500 litres of fuel – above grade

* Facility as defined by O. Reg. 217/01 (retail outlet, bulk plant, marina, cardlock/keylock, private outlet or farm where gasoline or an associated product is handled other than in portable containers) or a facility that manufactures or refines fuel (refinery).

Illustration of the significant threat circumstances outlined above for liquid fuel storage



Maps showing the location of WHPAs and IPZs and their vulnerability scores are available on the "Assessment Report" pages of our website (www.mrsourcewater.ca). In the Mississippi-Rideau region vulnerability scores of 10 are only found in:

Drinking Water System	WHPA			
	100 m	2 year	5 year	25 year
Almonte	whole area	partial area		
Carp	whole area	partial area		
Kemptville	whole area	partial area		
Merrickville	whole area	partial area		
Munster	whole area	partial area		
Richmond	whole area	partial area		
Westport	whole area	partial area		

Drinking Water System	IPZ		
	IPZ-1	IPZ-2	IPZ-3
Carleton Place	whole area		
Perth	whole area		
Smiths Falls	whole area		
Ottawa – Britannia & Lemieux Island			

Existing and Future Significant Threats

In the Mississippi-Rideau region there are some properties where existing liquid fuel handling and storage is a significant drinking water threat. There are also some areas where future liquid fuel handling and storage could be undertaken creating new significant threats.

Drinking Water System		Existing Significant Threats	Future Significant Threats
WHPA	Almonte	**6 unlicensed facilities** Farms	**Possible** **In all areas**
	Carp	**2 unlicensed facilities** Farms	
	Kemptville	**2 unlicensed facilities** Electrical transmission station Ambulatory health care services	
	Merrickville	**2* unlicensed facilities** RV park Electrical transmission station **2* licensed facilities** Gas station Marina	
	Munster	0	
	Richmond	0	
	Westport	**1 unlicensed facility** farm	

* These numbers will drop significantly if the municipal well casings are successfully deepened through the Ontario Drinking Water Stewardship Program grant.

Drinking Water System		Existing Significant Threats	Future Significant Threats
IPZ	Carleton Place	0	**Possible** In all areas
	Perth	0	
	Smiths Falls	0	
	Ottawa – Britannia & Lemieux Island	No vulnerability score of 10 so a significant threat is not possible	

Where is it a Moderate Threat?

In areas of a WHPA or IPZ with a vulnerability score of 10, the handling and storage of liquid fuel is a moderate drinking water threat:

- Under the following circumstances.

Locations	Circumstances
Wellhead Protection Areas (WHPA) with a vulnerability score of 10	Facility* storing: • > 25 litres of fuel – partly below at or above grade Handling of liquid fuel in relation to the storage of: • any amount of fuel – above or below grade
Intake Protection Zones (IPZ) with a vulnerability score of 10	Facility* (not including a bulk plant or refinery) storing: • Any amount of fuel – partly below, at or above grade • >250 litres of fuel – below grade Bulk plant or a refinery storing: • >25 litres of fuel – partly below at or above grade • >250 litres of fuel – below grade Handling of liquid fuel in relation to the storage of: • Any amount of fuel – above grade at a facility*(not including a bulk plant or refinery) • >25 litres of fuel – above grade at a bulk plant or refinery • >250 litres of fuel – below grade at a facility*

* Facility as defined by O. Reg. 217/01 (retail outlet, bulk plant, marina, cardlock/keylock, private outlet or farm where gasoline or an associated product is handled other than in portable containers) or a facility that manufactures or refines fuel (refinery).

Existing Regulations

The Technical Standards and Safety Authority (TSSA) is a not-for-profit, self-funded corporation that was created in 1996 to deliver public safety services on behalf of the Government of Ontario. They administer and enforce public safety laws which include the transportation, storage, distribution and utilization of fuel. They do this through Ontario's *Technical Standards and Safety Act, 2000*.

Legislation

There are two regulations under the *Technical Standards and Safety Act* pertaining to fuel:

- Ontario Regulation 213/01 – Fuel Oil
- Ontario Regulation 217/01 – Liquid Fuel

In addition to Ontario Regulation 217/01, the requirements for the installation, testing, maintenance, repair, removal, replacement, inspection and use of equipment, components and accessories that dispense, handle or store gasoline or an associated product are found in the:

- *Liquid Fuels Handling Code 2007*

Types of Facilities

The drinking water threat includes three categories of "facilities":

1. A **facility that manufactures or refines fuel** (not regulated by TSSA)
2. **Licensed facilities** (regulated by TSSA).
    - These are a bulk plant, retail outlet, marina and cardlock/keylock (meaning an outlet not used by the general public where gasoline or diesel fuel is dispensed unsupervised).
3. **Unlicensed facilities** (regulated by TSSA).
    - These are farms or private outlets (meaning any premises, other than a retail outlet where gasoline or an associated product is put into the fuel tanks of motor vehicles or floating motorized watercraft or into portable containers). Examples of private outlets that are existing significant threats are fire stations, RV parks, automotive dealers, manufacturing and electric power transmission stations.

Inspections and Compliance

Licensed Facilities:

- Liquid fuel licensed facilities are inspected by TSSA on a three year cycle (in accordance with O. Reg. 217/01) to ensure compliance with codes and regulations
- Licensed facilities are also subject to certain requirements that do not apply to unlicensed facilities (partly due to the nature of the facility) such as training, spill contingencies and record keeping. The owner/operator of a licensed facility is responsible for familiarity with the codes, licensing requirements and associated monitoring and record keeping.

Unlicensed Facilities:

- Unlicensed facilities are inspected on an ad-hoc basis for compliance.
- At unlicensed facilities it is the fuel distributors' responsibility to instruct the owner/operator about the *Liquid Fuels Handling Code* with regard to leak detection, spills and safe dispensing. In addition, the distributor must obtain written acknowledgment and maintain records regarding this instruction.

Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address the handling and storage of liquid fuel where it is or would be a significant drinking water threat.

Policy Tool	Address the handling and storage of liquid fuel
Education and Outreach	**Yes**
Incentives	**Yes**
Prescribed instruments	**No prescribed instruments exist**
Land Use Planning	**Yes**
Risk Management Plans	**Yes**
Prohibition (under the Clean Water Act)	**Yes**
Other: • Specify Actions to be taken by a person or body to achieve Source Protection Plan objectives • Establish stewardship programs • Promote best management practices • Establish pilot programs • Govern research	**Yes**

Draft Policy Ideas

Draft policy ideas have been developed to address the application, handling and storage of liquid fuel. These ideas were developed by staff in conjunction with:

- Sector experts; and
- Our municipal working group
    - Meeting #3 (February 17, 2011)

The draft policy ideas are outlined in the attached table.

Rationale

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of our policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of their Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for the handling and storage of liquid fuel:

Licensed Facilities

Effectiveness

- The draft policy idea is to continue to manage the handling and storage of fuel at existing licensed facilities through TSSA's comprehensive system of monitoring, licensing and inspections.
- The draft policy idea also recommends that it would be prudent for TSSA to increase the frequency of inspections at licensed facilities where the handling and storage of fuel is a significant threat.
- While risks will be managed at existing licensed facilities, the draft policy idea is to prohibit the establishment of future licensed facilities where the handling and storage of fuel would be a significant threat.
    - It is unlikely that new licensed facilities would be established in vulnerable areas scored 10 as these areas tend not to be well suited for this type of land use because they are largely residential in nature and can be adjacent to sensitive environmental features and/or have prohibitive zoning regarding this type of land use.
    - It is also unnecessary that new licensed facilities be established where they would be considered a significant threat because these facilities are "fuel based businesses" that can be established in any suitable location, there is no operational need for them to be located in vulnerable areas scored 10.
    - Even though risks associated with the handling and storage of fuel could be managed, licensed facilities are most often associated with large volumes of fuel which still poses a substantial level of risk (e.g. spills, leaks, contaminated runoff).

Cost / Impact

- Existing facilities will continue to operate and be managed through TSSA's current regulatory system, therefore existing facilities should not be impacted.
- If TSSA increases the frequency of their inspections (as is recommended), the cost of more frequent inspections would be borne by the owners of licensed facilities. A basic inspection by a TSSA Fuel Safety Inspector costs approximately $300.
- TSSA inspectors could have a slight increase in workload (fewer than five facilities in the region) if they implement the recommendation to undertake more frequent inspections.
- Since it is unlikely and unnecessary that a new licensed facility be established in these areas, prohibiting this activity should have no financial or development impacts.
- The cost of implementing the prohibition would be administrative in nature:
    - Some municipalities will need to amend their Official Plan and Zoning by-laws

Practicality

- Relying on TSSA's system of monitoring, licensing and inspections to manage current licensed facilities makes use of an existing system and avoids regulatory duplication (e.g. requiring a Risk Management Plan which would duplicate the amount of monitoring, record keeping and inspections licensed facilities are already subject to).
- MOE guidance acknowledges prohibition is an effective and efficient source protection tool that may be appropriate for ensuring certain hazardous activities get located in less vulnerable areas. Since it is unlikely and unnecessary for new licensed facilities to be established in these small areas, prohibition seems reasonable.
- The draft policy ideas are simply enforcing current regulatory requirements.
- Portions of the draft policy ideas for liquid fuel mirror the draft policy concepts for fuel oil. This will result in ease of implementation and monitoring:

    - One Education and Outreach program could address both liquid fuel and fuel oil handling and storage where they pose a moderate threat.
    - One Education and Outreach program could address both liquid fuel and fuel oil handling by distributors and fuel truck drivers.
- Education and outreach targeted at fuel distributors and their drivers will build upon training initiatives that already exist within these companies where possible.
- Monitoring the effectiveness of the policies would be achieved mainly through reports from TSSA and the education and outreach program implementer.

Acceptance

- For most communities the area of land affected by prohibition is small and largely unsuitable for the establishment of a licensed facility, so the policy should be well accepted.
- The exception is Merrickville, where the vulnerable area where fuel handling and storage is or would be a significant threat is large, encompassing much of the village and a portion of land outside of the urban boundary. Consultation of this draft policy concept would be especially important in this community since policies could affect a larger number of properties. The affected area could shrink if the municipal well casings are successfully deepened through the Ontario Drinking Water Stewardship Program funding.
- Draft policy concepts will be provided to potentially affected property owners for review and input and their comments will be reviewed by the SPC prior to considering a draft policy for the draft Source Protection Plan.
- Fuel industry associations and insurance industry representatives will also be consulted to obtain input on draft policy concepts.

Unlicensed Facilities

Effectiveness

- The draft policy idea is to manage the handling and storage of fuel at both existing and future unlicensed facilities through a Risk Management Plan.
- Compliance with TSSA regulations and codes at unlicensed facilities is less well assured because they are not subject to regular TSSA inspections and lack the record keeping and reporting requirements of a licensed facility. A Risk Management Plan would fill this gap and create a system of record keeping and reporting. The contents of the Risk Management Plan would simply require demonstration of compliance with the requirements of TSSA's existing regulation and codes.
- The draft policy idea also recommends that TSSA give inspection priority to unlicensed facilities located within vulnerable areas where the handling and storage of fuel is a significant threat.
- In contrast to the recommendation that future licensed facilities be prohibited in vulnerable areas scored 10, the draft policy idea recommends future unlicensed facilities be permitted and managed through a Risk Management Plan.
    - Unlike licensed facilities, certain types of new unlicensed facilities could be established in vulnerable areas scored 10 because these facilities can be accommodated in areas largely residential in nature even if adjacent to sensitive environmental features. These areas do not tend to have prohibitive zoning regarding many types of unlicensed facilities.
    - It is also possible that it would be necessary to establish a new unlicensed facility in these areas to support an existing or future land use. Unlicensed facilities are not "fuel based businesses", they provide fuel to support other land uses (e.g. farming, small businesses with heavy equipment). Therefore it is necessary to allow new unlicensed facilities in these areas otherwise it could inadvertently prohibit the establishment of an array of businesses, institutions and public buildings where fuel may be handled and stored (e.g. fire halls).

Unlike licensed facilities, there could be an operational need for an unlicensed facility to be located in vulnerable areas scored 10.
    - Unlicensed facilities are commonly associated with smaller volumes of fuel compared to licensed facilities which means they often pose less of a risk (e.g. spills, leaks, contaminated runoff). There are exceptions however where unlicensed facilities involve large volumes of fuel (e.g. a quarry site).
- An Education and Outreach program for moderate threats at unlicensed facilities would address smaller volumes (e.g. a standard tank for diesel fuel is 1,360 litres). This would be consistent with the fuel oil policy and could be covered by one Education and Outreach initiative.
- An Education and Outreach program targeted at fuel distributors and fuel truck drivers is also recommended to address fuel handling. This would also be consistent with the fuel oil policy and could be rolled into one program.

Cost / Impact

- The cost of administering Risk Management Plans falls to municipalities, however:
    - Under the *Clean Water Act*, municipalities may charge fees to recover the costs of administering Risk Management Plans. Therefore the cost could be borne by the property owner requiring the Risk Management Plan (like a permit fee) or could be paid for by those on municipal water services through an additional charge on their water bill.
    - Once the existing significant threats enumeration is refined we anticipate that the number of existing unlicensed liquid fuel significant threats will be relatively low (fewer than 10). This means the cost of administering a Risk Management Plan program for this threat could be reasonable, although this will become clearer as further information about Risk Management Plans is received from the MOE.
- The measures required through the Risk Management Plan may have additional costs associated with them (if upgrades are required to bring installations up to code) but they would be modest compared to the costs associated with a spill.
- Insurance companies will be encouraged to reduce insurance premiums for property owners who have a Risk Management Plan or undertake the measures outlined in the education and outreach policy.
- Future facilities will be permitted subject to a Risk Management Plan so financial and development impacts should be minimal in comparison to prohibiting new unlicensed facilities.

Practicality

- The proposed draft policy ideas are current best management practices and common industry standards and they are enforcing current regulatory requirements.
- Portions of the draft policy ideas for liquid fuel mirror the draft policy concepts for fuel oil. This will result in ease of implementation and monitoring:
    - A property owner with fuel oil and liquid fuel can have one Risk Management Plan to address both threats.
    - One Education and Outreach program could address both liquid fuel and fuel oil handling and storage where they pose a moderate threat.
    - One Education and Outreach program could address both liquid fuel and fuel oil handling by distributors and fuel truck drivers.

- Education and outreach targeted at fuel distributors and their drivers will build upon training initiatives that already exist within these companies where possible.
- Monitoring of the effectiveness of the policies would be achieved mainly through annual reports to the SPA from the Risk Management Official and the education and outreach program implementer.

Acceptance

- In many cases, the Risk Management Plan would include measures that are already mandatory or standards that are commonly required by local fuel suppliers or insurance companies. This means many property owners may have already undertaken some or all of these measures to maintain their fuel delivery or their insurance policy.
- Insurance companies will be encouraged to reduce the insurance premiums of owner/operators who have undertaken a Risk Management Plan or implemented the best management practices promoted through the education and outreach program as these actions will reduce the risk to insurance companies of having to clean up a spill.
- As outlined above, the additional costs for property owners to implement the risk mitigation measures required by the Risk Management Plan should be modest and these measures will help protect the owner's property and business. A spill can bankrupt a property owner or cause them to lose their business and/or property even if they have insurance.
- Draft policy concepts will be provided to potentially affected property owners for review and input and their comments will be reviewed by the SPC prior to considering a draft policy for the draft Source Protection Plan.
- Fuel industry associations and insurance industry representatives will also be consulted to obtain input on draft policy concepts.

Additional Information

- MOE Bulletin: Technical Standards and Safety Association (January 2011)

Attached:

- Draft Policy Ideas for the Handling and Storage of Liquid Fuel

3.0a Draft Policy Ideas: Handling and Storage of Liquid Fuel

Facilities Regulated under the *Technical Standards and Safety Act, 2000,* O. Reg. 217/01 and the Liquid Fuels Handling Code (2007) and Facilities that Manufacture or Refine Fuel

Situation	Description	Policy Tool and Concept	Monitoring Policy	Implementer	Legal Effect	Compliance Date
#1 Existing Significant Threat **licensed facilities**	Existing fuel storage and handling identified as a significant threat* at these types of **licensed facilities**: • Retail outlet • Marina	**Specify Actions:** TSSA ensures compliance with Ontario Regulation 217/01 and the Liquid Fuels Handling Code (2007) through its system of licensing and inspections that are conducted on a three year cycle. TSSA should conduct annual inspections at existing licensed facilities located in areas where they are a significant drinking water threat.	TSSA to provide a response to the Source Protection Authority regarding their decision about conducting annual inspections of licensed facilities where they are a significant drinking water threat.	TSSA	Strategic action	Within 6 months of Source Protection Plan taking effect
	Existing fuel storage and handling identified as a significant threat* at these types of **licensed facilities**: • Cardlock/keylock • Bulk Plant • Facility that manufactures or refines fuel	There are no existing significant threats so no policy is required.	n/a	n/a	n/a	n/a
#2 Future Significant Threat **licensed facilities**	Future fuel storage and handling that would be a significant threat* at these types of **licensed facilities**: • Retail outlet • Marina • Cardlock/keylock • Bulk Plant • Facility that manufactures or refines fuel	**Land Use Planning** Municipalities shall ensure their Official Plans and Zoning By-laws prohibit the establishment of the following where the handling and storage of fuel would be a significant drinking water threat: • Retail outlet (permanent or mobile)[+] • Marina[+] • Cardlock/keylock[+] • Bulk plant[+] • Facility that manufactures or refines fuel [+] as defined in Section 1 of Ontario Regulation 217/01 (Liquid Fuels)	Municipality shall notify the Source Protection Authority when their Official Plan and Zoning By-laws prohibit the establishment of these types of facilities where fuel storage would be a significant threat.	Municipality	Must conform	Municipalities are encouraged to amend their Official Plans and Zoning By-laws as quickly as possible, but no later than their regular 5 year review (Planning Act decisions must conform immediately upon Source Protection Plans taking effect)
#3 Existing and Future Significant Threat **unlicensed facilities**	Existing and future fuel storage and handling that is or would be a significant threat* at these types of **unlicensed facilities:** • Private outlet • Farm	**Risk Management Plan** with the following mandatory content: • New installations shall be above ground if feasible and installed in accordance with O. Reg. 217/01 and the *Liquid Fuels Handling Code* • Tanks and piping systems must be tested and monitored in accordance with Section 7 of the *Liquid Fuels Handling Code* • Dispensing operations must be in compliance with Section 6 of the *Liquid Fuels Handling Code* • Owner/operator must demonstrate proof of pollution liability insurance • Owner/operator must be given information about procedures to follow in the event of a spill • Unused fuel tanks must be decommissioned in accordance with the *Liquid Fuels Handling Code, 2007* (Section 2.4 for Underground Storage Tanks and Section 3.4 for Above Ground Storage Tanks) **Restricted Land Use** as an administrative tool to implement the Risk Management Plans	Municipal Risk Management Official provide an annual report to the Source Protection Authority with the following content: • Number of Risk Management Plans prepared and a summary of the general content • Feedback regarding the effectiveness of the policy and recommendations for improvement	Municipality	Must comply	Existing: Date to be set by municipality based on Risk Management Official work load Future: Immediately upon Source Protection Plan taking effect
		Specify Actions: TSSA conducts inspections of unlicensed facilities on an ad hoc basis. TSSA should be made aware of the vulnerable areas where fuel handling and storage is a significant threat and prioritize inspections in these areas.	TSSA to provide a response to the Source Protection Authority regarding their plans for inspections of unlicensed facilities that are located in the vulnerable areas where fuel handling and storage is a significant threat.	TSSA	Strategic action	Within 6 months of Source Protection Plan taking effect
#4 Existing and Future Moderate Threat **unlicensed facilities**	Existing and future fuel storage and handling that is or would be a moderate threat* at these types of **unlicensed facilities** in a WHPA scored 10 or an IPZ scored 10: • Private outlet • Farm	**Education and Outreach** targeted at property owners to promote the following: • New installations shall be above ground if feasible and installed in accordance with O. Reg. 217/01 and the *Liquid Fuels Handling Code* • Tanks and piping systems must be tested and monitored in accordance with Section 7 of the *Liquid Fuels Handling Code* • Dispensing operations must be in compliance with Section 6 of the *Liquid Fuels Handling Code.* • Owner/operator should carry pollution liability insurance • Procedures to follow in the event of a spill • Unused fuel tanks must be decommissioned in accordance with the *Liquid Fuels Handling Code, 2007* (Section 2.4 for Underground Storage Tanks and Section 3.4 for Above Ground Storage Tanks) •	Implementer to provide an annual report to the Source Protection Authority on the education and outreach activities and their outcome.	To be determined	Strategic action	To be determined
#5	Fuel Handling	**Education and Outreach** targeted at fuel distributors and fuel truck drivers to promote the following: • Awareness of the vulnerable areas • Adherence to basic filling precautions • Procedures to follow in the event of a spill during handling that occurs in a vulnerable area	Implementer to provide an annual report to the Source Protection Authority on the education and outreach activities and their outcome.	To be determined	Strategic action	To be determined

***Significant Threats – Storage of Fuel**

- WHPA scored 10: The storage of >250 litres of liquid fuel in a tank below or partly below grade at a facility as defined by O. Reg. 217/01 or a facility that manufactures or refines fuel
  The storage of >2,500 litres of liquid fuel in a tank at or above grade at a facility as defined by O. Reg. 217/01 or a facility that manufactures or refines fuel
- IPZ scored 10: The storage of >2,500 litres of liquid fuel in a tank partly below, at or above grade at a facility as defined by O. Reg. 217/01 but not including a bulk plant

***Significant Threats – Handling of Fuel**

- WHPA scored 10: The above or below grade handling of liquid fuel in relation to its storage (>2,500 litres) at a facility as defined by O. Reg. 217/01 or facility that manufactures or refines fuel
- IPZ scored 10: The above grade handling of liquid fuel in relation to its storage (>2,500 litres) at a facility as defined by O. Reg. 217/01 but not including a bulk plant

3.0b Draft Policy Ideas: Runoff that Contains Chemicals used in De-Icing Aircraft

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation 1:

That the Mississippi-Rideau Source Protection Committee approve the Draft Policy Ideas for the management of runoff that contains chemicals used in the de-icing of aircraft and direct staff to undertake early engagement with potentially affected persons and bodies.

Background

Drinking Water Threats

Certain land use activities involving chemicals or pathogens (e.g. bacteria) are considered a significant drinking water threat if they take place close to a municipal well or upstream of a municipal water treatment plant intake. This is because a leak, spill or runoff could soak into the ground and contaminate groundwater or runoff property and contaminate a lake or river. If this happened near a municipal well or intake, municipal drinking water could become contaminated. Source Protection Committees must write policies to address these activities.

The province has determined that under certain circumstances the following land use activities are considered drinking water threats. To be a threat most of the activities below must involve a minimum amount of material, be occurring on a minimum size area and/or involve a certain type of chemical. All these threat "circumstances" are listed in a provincial table accessible from the "Assessment Report" page of our website (www.mrsourcewater.ca).

The provincial drinking water threat categories are:

- Waste disposal sites
- Sewage storage, treatment, transmission or disposal
- Agricultural source material (e.g. manure) storage or application
- Non-agricultural source material (e.g. biosolids) storage, handling or application
- Farm animal pasturing, grazing, outdoor confinement areas or farm yards
- Fertilizer storage, handling or application
- Pesticide storage, handling or application
- Fuel storage or handling
- Dense Non-aqueous Phase Liquids (DNAPLs) storage or handling
- Organic solvents storage or handling
- Road salt storage, handling or application
- Snow storage
- **Aircraft de-icing**

Aircraft De-Icing

This staff report discusses the management of runoff that contains chemicals used in the de-icing of aircraft (hereafter referred to as "aircraft de-icing"). The staff report provides:

- Background information about this significant drinking water threat; and
- Draft policy ideas for how it could be addressed in a Source Protection Plan.

Aircraft De-Icing	Background Info

The Threat

As noted above (in bold), one of the provincial threat categories is aircraft de-icing, specifically:

- The management of runoff that contains chemicals used in the de-icing of aircraft

The types of airports that may pose a drinking water threat are:

- Remote (moderate or low threats only),
- Small (moderate or low threats only),
- Regional, or
- National

Where is it a Significant Threat?

Aircraft de-icing is a significant drinking water threat:

- In the following locations
  - Wellhead Protection Areas (WHPA)
  - Intake Protection Zones (IPZ)
- Under the following circumstances:

Locations		Circumstances
WHPA	vulnerability score of 10	Run off containing de-icing materials may discharge to land or water. The runoff originates at a **national airport**.
IPZ	vulnerability score of 10	Run off containing de-icing materials may discharge to land or water. Runoff originates at a **national airport** or **regional airport.**
	vulnerability score of 9	Run off containing de-icing materials may discharge to land or water. The runoff originates at a **national airport**.

Maps showing the location of WHPAs and IPZs and their vulnerability scores are available on the "Assessment Report" pages of our website (www.mrsourcewater.ca). In the Mississippi-Rideau region vulnerability scores of 9 to 10 are only found in:

Drinking Water System	WHPA			
	100 m	2 year	5 year	25 year
Almonte	whole area	partial area		
Carp	whole area	partial area		
Kemptville	whole area	partial area		
Merrickville	whole area	partial area		
Munster	whole area	partial area		
Richmond	whole area	partial area		
Westport	whole area	partial area		

* If the municipal well casings are successfully deepened through the Ontario Drinking Water Stewardship Program, scores of 10 and 8 will only be found in the 100m area

Drinking Water System	IPZ		
	IPZ-1	IPZ-2	IPZ-3
Carleton Place	whole area	whole area	
Perth	whole area	whole area	
Smiths Falls	whole area		
Ottawa – Britannia & Lemieux Island	whole area		

Are There Existing Significant Threats?

In the Mississippi-Rideau region there are no existing airports that are considered significant drinking water threats.

Could There Be Future Significant Threats?

There are no areas where future airports could be established creating new significant threats.

WHPAs and IPZs	Vulnerability Score	Future Significant Threats
WHPAs	10	Not possible due to lack of space and/or incompatible existing land uses
IPZs	10	Not possible due to lack of space and/or incompatible existing land uses
	9	Not possible due to lack of space and/or incompatible existing land uses

Moderate and Low Drinking Water Threats

Draft policy ideas have not been developed for moderate and low drinking water threats.

Existing Regulations

To establish a new airport approval would be required from:

- Transport Canada.

De-icing fluids shall be stored, handled and managed in accordance with:

- Federal *CCME Environmental Code of Practice for Above Ground and Underground Storage Tank Systems containing Petroleum and Allied Petroleum Products, 2003*

A Glycol Management Plan must be prepared in accordance with:

- Federal *TP 14052 – Guidelines for Aircraft Ground Icing Operators, 2005*

Depending on where the runoff is discharged, other regulations may apply:

- *Ontario Water Resources Act, 1990*
    - Certificates of Approval (sewage) are issued for discharge from airports when the discharge is offsite or outside the property line.

Aircraft De-icing	Draft Policy Ideas

Policy Options

There are many policy tools that can be used to address drinking water threats. Some are existing tools (education and outreach, incentives, prescribed instruments, and land use planning). Others were newly created under the *Clean Water Act* (Risk Management Plans, prohibition and others). The following chart shows what policy tools are available to address the handling and storage of liquid fuel where it is or would be a significant drinking water threat.

Policy Tool	Address Aircraft De-icing
Education and Outreach	**Yes**
Incentives	**Yes**
Prescribed instruments	**No** (except where off-site runoff requires a Sewage C of A)
Land Use Planning	**Yes**
Risk Management Plans	**Yes**
Prohibition (under the Clean Water Act)	**Yes**
Other: • "Specify Actions" to be taken by a person or body to achieve the Source Protection Plan objectives • Establish stewardship programs • Specify and promote best management practices • Establish pilot programs • Govern research	**Yes**

Draft Policy Ideas

The draft policy ideas are outlined in the attached table.

Rationale

Each Source Protection Committee has to write an Explanatory Document to accompany their Source Protection Plan. This document must provide a rationale for each source protection policy. It will therefore be important to document at each stage of policy development, why Committees approve certain draft ideas, concepts and policies.

The Mississippi-Rideau Source Protection Committee developed a qualitative evaluation framework to help them evaluate different policy options and ultimately decide which ones to use. The framework has four categories: Effectiveness, Cost / Impact, Practicality and Acceptance. At each stage of our policy development process (draft policy ideas, draft policy concepts, draft policies and proposed policies) this evaluation framework will be used by the Committee to make decisions. This will form the content of the Explanatory Document.

Below, staff used the four main categories of the framework to do an initial evaluation of the draft policy ideas being proposed for aircraft de-icing (airports):

Effectiveness

- In the Mississippi-Rideau region there are no existing airports where de-icing could be a significant threat.
- It is also impossible for any future significant threats pertaining to de-icing to be established. Approximately 160 hectares (400 acres) would be required to establish a new regional airport and even more for a national airport. *The Provincial Policy Statement, 2005* reminds us that airports and adjacent land uses must be buffered and/or separated from each other to prevent adverse effects from odour, noise and other contaminants. For these reasons, it is impossible that a new national airport could be established in a WHPA scored 10 or in an IPZ scored 9 or 10. It is also impossible that a regional airport could be established in an IPZ scored 10.

- Since there are no existing significant threats, and there will not be any future ones, prohibition is an efficient and reasonable policy in this situation.

Cost / Impact

- With no airports, now or in the future, being located in areas where aircraft de-icing would be a significant threat, a prohibition policy will not impact any persons or bodies.
- The cost of delivering this policy would be administrative in nature as some municipalities will need to amend their Official Plan and Zoning by-laws:
    - Land Use Planning policies in the Source Protection Plan have legal effect as soon as the Plan is approved by the province, therefore municipalities do not need to rush to amend their Official Plans and Zoning By-laws in order for the requirements or restrictions to take effect. Source Protection Plans will likely require multiple amendments to local Official Plans and Zoning By-laws so municipalities can do all the amendments at once when it is convenient, but not later than their next regular five year review.
    - Monitoring would consist of municipalities notifying the Source Protection Authority when their Official Plan and Zoning amendments are completed.

Practicality

- MOE guidance acknowledges prohibition is an effective and efficient source protection tool that may be appropriate for ensuring certain hazardous activities get located in less vulnerable areas.
- Prohibiting through Land Use Planning policies (Official Plans and Zoning) makes use of existing tools and processes which prevents regulatory duplication.

Acceptance

- Municipal staff from each municipality with areas where the prohibition would take effect supported a general policy approach of locating large future land uses that involve drinking water threat activities (such as landfills and airports) outside of vulnerable areas.
- Draft policy concepts will be provided to potential policy implementers for review and input and their comments will be reviewed by the Source Protection Committee who can revise the policy if necessary before undertaking additional rounds of public consultation.

Attached:

- Draft Policy Ideas: Runoff that Contains Chemicals used in De-Icing Aircraft

3.0b Draft Policy Ideas: Runoff that Contains Chemicals used in De-Icing Aircraft

Situation	Description	Policy Tool and Concept	Implementer	Monitoring Policy	Legal Effect	Compliance Date
#1 Existing Significant Threat	Existing aircraft de-icing that is a significant threat	There are no existing significant threats so no policy is required.	n/a	n/a	n/a	n/a
#2 Future Significant Threat	Future aircraft de-icing that would be a significant threat	**Land Use Planning:** Prohibit the establishment of new airports through amendment to Official Plans / Zoning By-laws	Municipality	Municipality shall notify the Source Protection Authority when their Official Plan and Zoning By-laws prohibit new airports where aircraft de-icing would be a significant threat	Must conform	Municipalities are encouraged to amend their Official Plans and Zoning By-laws as quickly as possible, but no later than their regular 5 year review (Planning Act decisions must conform immediately upon Source Protection Plans taking effect).

4.0 Assessment Report Updates

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation 1:

That the Mississippi-Rideau Source Protection Committee approve the Assessment Report Updates and direct staff to submit them to the Ontario Ministry of the Environment for inclusion in the Proposed Assessment Reports currently under review.

Background

The Mississippi-Rideau Source Protection Region submitted proposed Assessment Reports to the Ministry of the Environment (MOE) on December 21, 2010. Since then staff have made a number of minor corrections and improvements, most in accordance with our Updated Assessment Report workplan approved by MOE on December 20, 2010. Since none of these updates create new significant drinking water threats, no additional public consultation was required. All updates must be submitted to the MOE by June 30, 2011.

Updated Assessment Report Workplan

The following tasks were identified in our Updated Assessment Report workplan approved by the MOE on December 20, 2010. Only two tasks will trigger updates at this time.

	Workplan Task	Assessment Report Update
1	Future Lanark Water Supply	No
2	On-going Confirmation of Significant Threats	**Yes**
3	Review of Westport GUDI designation	No
4	Review of IPZ-3 Vulnerability Scoring for City of Ottawa Intakes	No
5	Possible Significant Threats Reductions as a Result of ODWSP Early Response Program	**Yes**

Other Assessment Report Updates

In addition to the approved workplan tasks, staff also proposes the following updates:

6	Addition of a Summary of Public Consultation	**Yes**
7	Editorial Corrections	**Yes**

Assessment Report Updates

1. Future Lanark Water Supply

The Municipality of Lanark Highlands planned a future municipal drinking water system (groundwater-based) for the Village of Lanark and a Wellhead Protection Area (WHPA) is being delineated through the source water protection program. Since construction of this future drinking water system is dependent on the municipality receiving substantial funding, the MOE and the Source Protection Committee decided it would be more appropriate to include this planned drinking water system in a future amended Assessment Report when it has been confirmed that the drinking water system will be constructed (e.g. funding is received). In the meantime, the WHPA study will be completed and the municipality will be encouraged to include it in their Official Plan to alert current and future property owners about the potential future designation and associated land use policies. If the Assessment Report is ever amended to include the Lanark WHPA, the remaining technical work is quite simple and could be completed by source protection staff (managed lands, significant threats inventory). Full public consultation would also be undertaken on all aspects of the study and policies.

Outcome: MOE has been asked to provide direction on how to address this planned system in our Proposed Assessment Report for Mississippi because the system is included in our approved Terms of Reference.

2. On-going Confirmation of Significant Threats

The significant threats enumeration in the Proposed Assessment Reports was based on broad assumptions that had to be made about what land use activities might be taking place on properties in wellhead protection areas and intake protection zones. Assumptions were made because data was not available for a number of the activities on the threats list. When our draft Assessment Report was posted for public consultation, a survey was mailed to all properties identified as potentially engaging in a significant drinking water threat. It was used to gather more accurate property scale information so people not engaging in these activities could be eliminated from the list. MOE confirmed additional information collected during public consultation on the Assessment Report could be incorporated into the Assessment Report if the report was already being amended or updated. More accurate information has also been provided by municipalities about municipal threat activities (e.g. sewage treatment plants).

Outcome: Our region received hundreds of responses to the survey. The majority of responses confirmed people were <u>not</u> engaging in a significant drinking water threat (e.g. the property does not have a septic system or home heating oil tank). This information enabled staff to refine the significant threats enumeration. In addition, staff improved the threats database following recent MNR direction. They discontinued the use of “polygons, points and lines” and identified all significant threats by property parcel. The updated significant threats enumeration is attached, these tables can be submitted to MOE as an Assessment Report update.

3. Review of Westport GUDI designation

The MOE confirmed the Westport drinking water system is not classified as a GUDI system.

Outcome: No update is required.

4. Review of IPZ-3 Vulnerability Scoring for City of Ottawa Intakes

Some City of Ottawa staff expressed concern with the approach used to determine vulnerability scores in IPZ-3 for the City of Ottawa's municipal surface water intakes. City staff decided to support a motion in support of the Source Protection Committee asking the MOE or Conservation Ontario to undertake a review of different IPZ study approaches used across the province in approved Assessment Reports. This review will look at how IPZs were delineated and how vulnerability scores were assigned. It is hoped that this review will point to some best practices or suggested approaches that can be used in future to improve and strengthen IPZ studies.

Outcome: The motion will be forwarded to the MOE and Conservation Ontario and after the review is done and Source Protection Plans are approved in 2013, staff will revisit the IPZ studies and update them in accordance with any recommendations. This would trigger an amended Assessment Report and associated public consultation requirements.

5. Possible Significant Threat Reductions as a Result of ODWSP Program

The Village of Merrickville-Wolford and the Municipality of North Grenville both received funding through the Ontario Drinking Water Stewardship Program to deepen their well casings to ensure water is only being drawn out of the deeper Nepean aquifer. This will significantly reduce the intrinsic vulnerability of their Wellhead Protection Areas resulting in much smaller areas scored high enough to produce a significant drinking water threat (approximately 1500 fewer properties). The municipality of North Grenville has successfully completed this work and the Village of Merrickville-Wolford is in the process of engaging a consultant.

When the MOE approved our updated Assessment Report workplan they deemed this work out of scope at this time and stated it should not be included in an updated Assessment Report. The proposed Assessment Report contained text and maps for both situations (current well casing depth and deepened casings) because the two aquifers supplying the wells were modeled separately and each set of results shown in the Assessment Report along with the combined results. This means no additional technical work needs to be undertaken to reflect the deepened well casings in the Assessment Reports, only a simple statement explaining the work that was done / may be done by the municipalities and the resulting vulnerable areas, vulnerability scores and significant threat enumerations. In future, the approved Assessment Report can be amended to remove references to the shallower Oxford aquifer (text, tables and maps).

Outcomes: The attached updated significant threats enumeration is based on the smaller vulnerable area for North Grenville's municipal wells. In addition staff will submit updated Assessment Report text to the MOE that will inform the reader of the work that was done in North Grenville and the work that may be done in Merrickville-Wolford and the corresponding wellhead protection area findings. This will allow the proposed Source Protection Plan to reference appropriate wellhead protection areas and vulnerability scores in 2012 in relation to where policies will apply.

6. Addition of Summary of Public Consultation

After submitting the proposed Assessment Reports, staff realized a summary of public consultation had not been included in the documents as had been done with the Terms of Reference. This is important information for the reader and it will also reference the Assessment Reports accompanying document: "*A Summary of Concerns Outside the Scope of the Assessment Reports*".

Outcome: Staff will develop a summary of the public consultation steps that were undertaken with the technical studies and subsequent Assessment Reports (including dates) and make reference to why the accompanying document was developed and how it can be obtained. This consultation summary will be included on the inside cover of the updated Assessment Reports.

7 Editorial Corrections

While reviewing the proposed Assessment Reports over the past five months, staff corrected a number of spelling mistakes, incorrect references, formatting errors and grammatical errors. Staff also made a number of editorial improvements, including revising text to reflect the Assessment Report updates listed above.

Outcome: These corrections will be submitted to the MOE.

Attachments: - Updated Significant Threats Enumeration

Table 5-xx

Summary of Potentially Significant Threats to Almonte Source Water

Mississippi - Rideau Source Protection Region

Mississippi Mills

VulnerabilityScore		10							6	
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Cattle Ranching and Farming	Oilseed and Grain Farming	On-Site Septic Systems - Recreational/Residential	Other Animal Production	Other Crop Farming	Residential Fuel / Hydrcarbon Storage	Sewer Mainlines and Connections	Dry Cleaning and Laundry Services	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land		1			2				**3**
The application of pesticide to land.	Application Of Pesticide To Land		1			2				**3**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes							2		**2**
	Sewage System Or Sewage Works - Septic System			8						**8**
The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)								1	**1**
	Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)								1	**1**
The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer		1			2				**3**
The handling and storage of fuel.	Handling Of Fuel				2	3				**5**
	Storage Of Fuel		1		2	3	53			**59**
The handling and storage of pesticide.	Storage Of A Pesticide		1			2				**3**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	2			2					**4**
	Total	**2**	**5**	**8**	**6**	**14**	**53**	**2**	**2**	**92**

Table 5-xx

Summary of Potentially Significant Threats to Carp Source Water

Mississippi - Rideau Source Protection Region

City of Ottawa

VulnerabilityScore		10				
Prescribed Drinking Water Threat	Land Use Activity / Threat Subcategory	Cattle Ranching and Farming	Oilseed and Grain Farming	Residential Fuel / Hydrcarbon Storage	Sewer Mainlines and Connections	Total
The application of pesticide to land.	Application Of Pesticide To Land		3			**3**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes				64	**64**
The handling and storage of fuel.	Handling Of Fuel		2			**2**
	Storage Of Fuel		2	105		**107**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	3				**3**
	Total	**3**	**7**	**105**	**64**	**179**

Table 6-xx

Summary of Potentially Significant Threats to Carleton Place Source Water

Mississippi - Rideau Source Protection Region

Carleton Place

VulnerabilityScore		10				
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Elementary and Secondary Schools	Road Salt Application	Sewer Mainlines and Connections	Snow Storage	Total
The application of road salt.	Application Of Road Salt		4			**4**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes			1		**1**
The handling and storage of fuel.	Storage Of Fuel	1				**1**
The storage of snow.	Storage Of Snow				2	**2**
	Total	**1**	**4**	**1**	**2**	**8**

Beckwith

VulnerabilityScore		9	8			
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Other Crop Farming	Cattle Ranching and Farming	Other Animal Production	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land				1	**1**
The handling and storage of pesticide.	Storage Of A Pesticide	1				**1**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)			2		**2**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation		1	4		**5**
	Total	**1**	**1**	**6**	**1**	**9**

Mississippi Mills

VulnerabilityScore		8		
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Cattle Ranching and Farming	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land		2	**2**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	1		**1**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	1		**1**
	Total	**2**	**2**	**4**

Total number of Potentially Significant Threats to Carleton Place Source Water = 21

Table 5-xx

Summary of Potentially Significant Threats to Kemptville Source Water

Mississippi - Rideau Source Protection Region

North Grenville

VulnerabilityScore		10							8	6	
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Dry Cleaning and Laundry Services	Electric Power Generation, Transmission and Distribution	Electronic and Precision Equipment Repair and Maintenance	Other Ambulatory Health Care Services	Residential Fuel / Hydrcarbon Storage	Road Salt Application	Sewer Mainlines and Connections	Dry Cleaning and Laundry Services	Other Wood Product Manufacturing	Total
The application of road salt.	Application Of Road Salt						3				**3**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes							3			**3**
The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	2	1	1					1	1	**6**
	Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	2	1	1					1	1	**6**
The handling and storage of fuel.	Handling Of Fuel		1		1						**2**
	Storage Of Fuel		1		1	78					**80**
	Total	**4**	**4**	**2**	**2**	**78**	**3**	**3**	**2**	**2**	**100**

Table 5-xx

Summary of Potentially Significant Threats to Merrickville Source Water

Mississippi - Rideau Source Protection Region

Merrickville-Wolford

VulnerabilityScore		10											
Prescribed Drinking Water Threat	Land Use Activity / Threat Subcategory	Cattle Ranching and Farming	Electric Power Generation, Transmission and Distribution	Elementary and Secondary Schools	Gasoline Stations	Marinas	Oilseed and Grain Farming	On-Site Septic Systems and Holding Tanks	Residential Fuel / Hydrcarbon Storage	RV (Recreational Vehicle) Parks and Recreational Camps	Sewer Mainlines and Connections	Ship and Boat Building	Total
The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)						2						**2**
The application of pesticide to land.	Application Of Pesticide To Land						1						**1**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes										5		**5**
	Sewage System Or Sewage Works - Septic System							76		1			**77**
	Sewage System Or Sewage Works - Septic System Holding Tank									1			**1**
The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)		1									1	**2**
	Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)		1									1	**2**
The handling and storage of fuel.	Handling Of Fuel		1	1	1	1				1			**5**
	Storage Of Fuel		1	1	1	1			403	1			**408**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	3											**3**
	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	3											**3**
	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	3											**3**
	Total	**9**	**4**	**2**	**2**	**2**	**3**	**76**	**403**	**4**	**5**	**2**	**512**

Table 5-xx

Summary of Potentially Significant Threats to Munster Source Water

Mississippi - Rideau Source Protection Region

City of Ottawa

VulnerabilityScore		10				
Prescribed Drinking Water Threat	Land Use Activity / Threat Subcategory	Oilseed and Grain Farming	Residential Fuel / Hydrcarbon Storage	Sewage Treatment Facilities	Sewer Mainlines and Connections	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	1				**1**
The application of pesticide to land.	Application Of Pesticide To Land	1				**1**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes				27	**27**
	Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)			1		**1**
The handling and storage of fuel.	Storage Of Fuel		226			**226**
	Total	**2**	**226**	**1**	**27**	**256**

Table 5-xx

Summary of Potentially Significant Threats to Richmond - King's Park Source Water

Mississippi - Rideau Source Protection Region

City of Ottawa

VulnerabilityScore		10			6			
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Other Crop Farming	Residential Fuel / Hydrcarbon Storage	Sewer Mainlines and Connections	Dry Cleaning and Laundry Services	Manufacturing and Reproducing Magnetic and Optical Media	Other Wood Product Manufacturing	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	2						**2**
The application of pesticide to land.	Application Of Pesticide To Land	2						**2**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes			14				**14**
The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)				3	1	1	**5**
	Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)				3	1	1	**5**
The handling and storage of fuel.	Storage Of Fuel		104					**104**
	Total	**4**	**104**	**14**	**6**	**2**	**2**	**132**

Table 5-xx

Summary of Potentially Significant Threats to Westport Source Water

Mississippi - Rideau Source Protection Region

Westport

VulnerabilityScore		10				
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Other Crop Farming	Rail Transportation	Residential Fuel / Hydrcarbon Storage	Sewer Mainlines and Connections	Total
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes				4	**4**
The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	1				**1**
The handling and storage of fuel.	Handling Of Fuel	1				**1**
	Storage Of Fuel	1	1	42		**44**
The handling and storage of pesticide.	Storage Of A Pesticide	1				**1**
	Total	**4**	**1**	**42**	**4**	**51**

Table 6-xx

Summary of Potentially Significant Threats to Britannia Source Water

Mississippi - Rideau Source Protection Region

City of Ottawa

VulnerabilityScore		10			
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Fruit and Tree Nut Farming	Oilseed and Grain Farming	Other Animal Production	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	2	13		**15**
The application of pesticide to land.	Application Of Pesticide To Land	2	13		**15**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)			3	**3**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation			3	**3**
	Total	**4**	**26**	**6**	**36**

Table 6-xx

Summary of Potentially Significant Threats to Perth Source Water

Mississippi - Rideau Source Protection Region

Perth

VulnerabilityScore		10			9	8		
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Golf Courses and Country Clubs	Road Salt Application	Snow Storage	Golf Courses and Country Clubs	Golf Courses and Country Clubs	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land						2	**2**
The application of pesticide to land.	Application Of Pesticide To Land	2			6	1		**9**
The application of road salt.	Application Of Road Salt		2					**2**
The storage of snow.	Storage Of Snow			1				**1**
	Total	**2**	**2**	**1**	**6**	**1**	**2**	**14**

Drummond / North Elmsley

VulnerabilityScore		8	
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	1	**1**
	Total	**1**	**1**

Tay Valley

VulnerabilityScore		9		8			
Prescribed Drinking Water Threat	Threat Subcategory \ Land Use Activity	Cattle Ranching and Farming	Other Animal Production	Cattle Ranching and Farming	Other Animal Production	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land					22	**22**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	2	2	16	1		**21**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	3	2	16	1		**22**
	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	3	2	2	1		**8**
	Total	**8**	**6**	**34**	**3**	**22**	**73**

Total number of Potentially Significant Threats to Perth Source Water = 88

Table 6-xx

Summary of Potentially Significant Threats to Smiths Falls Source Water

Mississippi - Rideau Source Protection Region

Smiths Falls

	VulnerabilityScore	10					8	
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Electric Power Generation, Transmission and Distribution	Road Salt Application	RV (Recreational Vehicle) Parks and Recreational Camps	Sewer Mainlines and Connections	Snow Storage	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land						2	**2**
The application of road salt.	Application Of Road Salt		22					**22**
The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Sanitary Sewers and related pipes				5			**5**
The handling and storage of an organic solvent.	Storage Of An Organic Solvent	1		1				**2**
The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	1		1				**2**
The storage of snow.	Storage Of Snow					15		**15**
	Total	**2**	**22**	**2**	**5**	**15**	**2**	**48**

Drummond / North Elmsley

	VulnerabilityScore	8			
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Cattle Ranching and Farming	Other Animal Production	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land			6	**6**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	3	1		**4**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	3	1		**4**
	Total	**6**	**2**	**6**	**14**

Montague

	VulnerabilityScore	8		
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Cattle Ranching and Farming	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land		4	**4**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	2		**2**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	2		**2**
	Total	**4**	**4**	**8**

Rideau Lakes

	VulnerabilityScore	10	8		
Prescribed Drinking Water Threat	Threat Subcategory / Land Use Activity	Road Salt Application	Cattle Ranching and Farming	Other Crop Farming	Total
The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land			15	**15**
The application of road salt.	Application Of Road Salt	1			**1**
The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)		2		**2**
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation		2		**2**
	Total	**1**	**4**	**15**	**20**

Total number of Potentially Significant Threats to Smiths Falls Source Water = 90

Table 5-xx
Summary of Potentially Significant Threats
Groundwater Based Municipal Drinking Water Systems - MVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	66
		Sewage System Or Sewage Works - Septic System	8
		Sewage System Or Sewage Works - Septic System Holding Tank	0
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	0
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	3
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	0
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	0
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	3
10	The application of pesticide to land.	Application Of Pesticide To Land	6
11	The handling and storage of pesticide.	Storage Of A Pesticide	3
12	The application of road salt.	Application Of Road Salt	0
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	0
15	The handling and storage of fuel.	Handling Of Fuel	7
		Storage Of Fuel	166
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	1
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	1
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	0
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	7
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	0
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	0
		Totals	**271**

Table 6-xx
Summary of Potentially Significant Threats
Surface Water Based Municipal Drinking Water Systems - MVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	1
		Sewage System Or Sewage Works - Septic System	0
		Sewage System Or Sewage Works - Septic System Holding Tank	0
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	0
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	3
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	3
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	0
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	0
10	The application of pesticide to land.	Application Of Pesticide To Land	0
11	The handling and storage of pesticide.	Storage Of A Pesticide	1
12	The application of road salt.	Application Of Road Salt	4
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	2
15	The handling and storage of fuel.	Handling Of Fuel	0
		Storage Of Fuel	1
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	0
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	0
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	0
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	6
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	0
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	0
		Totals	**21**

Table 9-xx
Summary of Potentially Significant Threats
Groundwater and Surface Water Based Municipal Drinking Water Systems - MVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	67
		Sewage System Or Sewage Works - Septic System	8
		Sewage System Or Sewage Works - Septic System Holding Tank	0
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	0
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	6
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	3
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	0
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	3
10	The application of pesticide to land.	Application Of Pesticide To Land	6
11	The handling and storage of pesticide.	Storage Of A Pesticide	4
12	The application of road salt.	Application Of Road Salt	4
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	2
15	The handling and storage of fuel.	Handling Of Fuel	7
		Storage Of Fuel	167
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	1
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	1
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	0
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	13
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	0
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	0
		Totals	**292**

Table 5-xx
Summary of Potentially Significant Threats
Groundwater Based Municipal Drinking Water Systems - RVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	53
		Sewage System Or Sewage Works - Septic System	77
		Sewage System Or Sewage Works - Septic System Holding Tank	1
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	1
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	3
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	0
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	2
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	1
10	The application of pesticide to land.	Application Of Pesticide To Land	4
11	The handling and storage of pesticide.	Storage Of A Pesticide	1
12	The application of road salt.	Application Of Road Salt	3
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	0
15	The handling and storage of fuel.	Handling Of Fuel	8
		Storage Of Fuel	862
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	13
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	13
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	0
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	3
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	3
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	3
		Totals	**1051**

Table 5-xx
Summary of Potentially Significant Threats
Surface Water Based Municipal Drinking Water Systems - RVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	5
		Sewage System Or Sewage Works - Septic System	0
		Sewage System Or Sewage Works - Septic System Holding Tank	0
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	0
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	67
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	32
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	0
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	2
10	The application of pesticide to land.	Application Of Pesticide To Land	24
11	The handling and storage of pesticide.	Storage Of A Pesticide	0
12	The application of road salt.	Application Of Road Salt	25
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	16
15	The handling and storage of fuel.	Handling Of Fuel	0
		Storage Of Fuel	0
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	0
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	0
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	2
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	33
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	8
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	0
		Totals	**214**

Table 9-xx
Summary of Potentially Significant Threats
Groundwater and Surface Water Based Municipal Drinking Water Systems - RVSPA
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	58
		Sewage System Or Sewage Works - Septic System	77
		Sewage System Or Sewage Works - Septic System Holding Tank	1
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	1
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	70
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	32
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	2
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	3
10	The application of pesticide to land.	Application Of Pesticide To Land	28
11	The handling and storage of pesticide.	Storage Of A Pesticide	1
12	The application of road salt.	Application Of Road Salt	28
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	16
15	The handling and storage of fuel.	Handling Of Fuel	8
		Storage Of Fuel	862
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	13
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	13
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	2
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	36
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	11
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	3
		Totals	**1265**

Table 9-xx

Summary of Potentially Significant Threats
Groundwater and Surface Water Based Municipal Drinking Water Systems - Mississippi-Rideau SPR
Mississippi - Rideau Source Protection Region

Prescribed Drinking Water Threat		Threat Sub Category	Total Significant Threats Count for each Threat Subcategory
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Application Of Untreated Septage To Land	0
		Storage, Treatment And Discharge Of Tailings From Mines	0
		Waste Disposal Site - Landfarming Of Petroleum Refining Waste	0
		Waste Disposal Site - Landfilling (Hazardous Waste)	0
		Waste Disposal Site - Landfilling (Municipal Waste)	0
		Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial)	0
		Waste Disposal Site - Liquid Industrial Waste Injection into a well	0
		Waste Disposal Site - PCB Waste Storage	0
		Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites	0
		Waste Disposal Site - Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste	0
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	Sewage System Or Sewage Works - Combined Sewer discharge from a stormwater outlet to surface water	0
		Sewage System Or Sewage Works - Discharge Of Untreated Stormwater From A Stormwater Retention Pond	0
		Sewage System Or Sewage Works - Industrial Effluent Discharges	0
		Sewage System Or Sewage Works - Sanitary Sewers and related pipes	125
		Sewage System Or Sewage Works - Septic System	85
		Sewage System Or Sewage Works - Septic System Holding Tank	1
		Sewage System Or Sewage Works - Sewage treatment plant bypass discharge to surface water	0
		Sewage System Or Sewage Works - Sewage Treatment Plant Effluent Discharges (Includes Lagoons)	0
		Sewage System Or Sewage Works - Storage Of Sewage (E.G. Treatment Plant Tanks)	1
3	The application of agricultural source material to land.	Application Of Agricultural Source Material (ASM) To Land	76
4	The storage of agricultural source material.	Storage Of Agricultural Source Material (ASM)	35
5	The management of agricultural source material.	Management Of Agricultural Source Material - Aquaculture	0
6	The application of non-agricultural source material to land.	Application Of Non-Agricultural Source Material (NASM) To Land (Including Treated Septage)	2
7	The handling and storage of non-agricultural source material.	Storage of Non-Agricultural Source Material (NASM)	0
8	The application of commercial fertilizer to land.	Application Of Commercial Fertilizer To Land	0
9	The handling and storage of commercial fertilizer.	Storage Of Commercial Fertilizer	6
10	The application of pesticide to land.	Application Of Pesticide To Land	34
11	The handling and storage of pesticide.	Storage Of A Pesticide	5
12	The application of road salt.	Application Of Road Salt	32
13	The handling and storage of road salt.	Storage Of Road Salt	0
14	The storage of snow.	Storage Of Snow	18
15	The handling and storage of fuel.	Handling Of Fuel	15
		Storage Of Fuel	1029
16	The handling and storage of a dense non-aqueous phase liquid.	Handling Of A Dense Non Aqueous Phase Liquid (DNAPL)	14
		Storage Of A Dense Non Aqueous Phase Liquid (DNAPL)	14
17	The handling and storage of an organic solvent.	Storage Of An Organic Solvent	2
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	Management Of Runoff Containing Chemicals Used In The De-Icing Of Aircrafts	0
19	An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.		0
20	An activity that reduces the recharge of an aquifer.		0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation	49
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Grazing and pasturing)	11
		Management Or Handling Of Agricultural Source Material - Agricultural Source Material (ASM) Generation (Yards or confinement)	3
		Totals	**1557**

5.0 Community Outreach

Date: May 24, 2011
To: Mississippi-Rideau Source Protection Committee
From: Sommer Casgrain-Robertson, Co-Project Manager
Mississippi – Rideau Source Protection Region

Recommendation:

That the Mississippi-Rideau Source Protection Committee receive the Community Outreach staff report for information.

Background

Staff and MRSPC members participate in many different community outreach activities to raise awareness and understanding of the source protection planning process. These activities include information booths at events, presentations at meetings and articles in newsletters and local papers. It is important that staff and members keep each other informed about the activities they are involved in so that we can coordinate our participation and prepare appropriate materials in advance. This includes coordinating with our neighbouring regions for outreach covering Eastern Ontario.

Past Activities

Members & staff are asked to give a verbal update on any other activities that took place in the past month related to source protection.

1. *Ontario Environmental Network – Teleconference with MOE*
    - May 10 (Carol Dillon and Patricia Larkin participating)
2. *Agricultural Experts Meeting (brainstorm policy ideas for agriculture activities)*
    - May 19, Manotick (staff and members attended)
3. *Principal Authorities Meeting (review draft policy concepts for septic systems)*
    - May 24, Manotick (staff attending)
4. *Eastern Regions Meetings*
    - May 30, Brockville (Sommer and Brian attending)

Upcoming Activities

Members & staff are asked to give a verbal update about any other activities they know about in the coming months related to source protection.

1. *Source Protection Plan Advisory Committee meeting*
    - June 6, Toronto (Allison and Sommer attending)
2. *Ontario Road Salt Management Group*
    - June 9, Ottawa (Sommer presenting)
3. *Glens Community Association – Annual General Meeting*
    - June 13, Ottawa (Sommer presenting)
4. *Municipal Working Group Meeting*
    - June 16, Perth (staff and some members attending)
5. *Special Source Protection Committee Meeting – Assessment Report Revisions*
    - Tentatively - June 20, 1 pm, Manotick
    - This meeting will be held if MOE requests Assessment Report updates

6. *Eastern Regions Meetings*
    - June 27, Brockville (Sommer and Brian attending)