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Purpose

Ontario Regulation 287/07 requires that each source protection plan submitted to the Minister of the Environment be accompanied by an explanatory document. The purpose of the explanatory document is to provide stakeholders, the general public, other interested parties, the source protection authority, and the Minister of the Environment with an understanding of the rationale for the policies included in the plan, by providing information that may have influenced policy decisions. This supports a transparent decision-making process.

The explanatory document must include the following (where applicable):

- The reasons that S57 prohibition is used to address the risk of an **existing** activity.
- A statement indicating that the committee is of the opinion that non-regulatory measures are sufficient to address significant threats, when used as a stand-alone policy tool.
- A summary of comments received and an explanation of how they affected policy development.
 - Ensure that comments received during pre-consultation are discussed.
 - Explain how comments received during public consultation affected policies.
- A summary of how financial implications may have affected policy decisions.
- An explanation of how climate change considerations may have impacted policies.
- Explanation of why a policy is written generally or with specific details; if general policies are included, an explanation on how the specifics will be determined locally during implementation.

Plan Objectives

Ontario Regulation 287/07, Section 22 (1) lists the following two objectives for all plans developed in Ontario:

To protect existing and future drinking water sources in the source protection area.

- I. To ensure that, for every area identified in an assessment report as an area where an activity is or would be a significant drinking water threat, the activity never becomes a significant drinking water threat, or
- II. If the activity is occurring when the source protection plan takes effect, the activity ceases to be a significant drinking water threat.

The background research, discussions on policies, and consultations with stakeholders summarized in this document support the policies developed to meet the objectives of the Source Protection Plan.

Policy Development Process

The policies evaluated and discussed within this Explanatory Document are the result of a comprehensive consultation and review process carried out by the ABMV Source Protection Committee.

Municipal planning groups were formed in the winter of 2010/2011 to assist in the development of possible policies to mitigate significant threats in the ABMV SP Region. Three groups, located in

Wingham, Clinton and Exeter, met once per month to discuss threats, and policy development related to specific property types.

All municipalities within the ABMV SP Region were contacted in early December 2010, and were invited to send one or more representatives to the proposed planning group meetings in 2011. Fifteen municipalities confirmed at least one representative, many choosing to send two or three. The representatives came from various municipal departments including administration, planning and building, by-law enforcement and public works. Additionally, county planners and several independent planners were also asked to participate, along with planners from both the Ausable Bayfield Conservation Authority and Maitland Valley Conservation Authority. In total, 34 participants agreed to attend the meetings.

The recommended approaches identified by the municipal working groups were then presented to the SPC for discussion at their monthly meetings in March, April, May and June of 2011. Based on the policy feedback provided by the SPC, a working draft of the Source Protection Plan was created in the summer of 2011. The SPC then held a 2-day meeting at the end of August 2011 that was dedicated to reviewing the document. The recommended policies were again reviewed and evaluated. During this meeting, the SPC engaged with subject matter experts on the use of the various tools proposed to address existing and future threats.

Following that, the draft plan was further refined and another round of working group meetings was held to gather further input from municipal staff in late September 2011. This information combined with the efforts of other SPC's, MOECC guidance, and any additional information that was gathered was incorporated into a draft plan that was approved for pre-consultation by the Source Protection Committee on November 30th, 2011.

Pre-Consultation is a phase designed for implementing bodies and other interested parties to review the draft policies. Through pre-consultation, source protection committees gather information about the capacity required for implementers to undertake the policies, collect thoughts on ways to collaborate to complete policy tasks, and obtain suggestions for improved policy clarity. Pre-consultation notices were mailed out along with the draft plan to all implementing bodies (municipalities, conservation authorities and provincial ministries) in mid-December 2011. Notices were also sent to any interested parties including industry groups and non-implementing provincial ministries. Five pre-consultation meetings were held for municipalities to explain the draft policies in January and February 2012. DWSP staff was also invited by several municipal councils to provide presentations on the draft plan.

Pre-Consultation comments were required by February 8th, 2012 for provincial ministries and interested parties, and March 14th, 2012 for municipalities and conservation authorities. All comments received were reviewed by the SPC at meetings held in February, March and April of 2012. Substantial changes were made to the draft plan based on pre-consultation feedback and a revised version of the plan was approved for public consultation on May 16th, 2012. For this version of the plan, virtually every policy in the plan was changed in some way, either substantially to change the intent of the policy, to switch to a different tool, or only in a minor way to improve policy clarity.

A 35-day public consultation period was initiated on May 22nd, 2012 on the draft proposed Source Protection Plans and draft Explanatory Document. Three public meetings (as well as a webinar and teleconference) were held during this phase in which affected landowners and other members of the public were invited to attend. The public was also invited to submit written comments on the draft proposed policies by Wednesday, June 27, 2012. The Source Protection Committee reviewed all comments received during the public consultation phase at a meeting held on July 4, 2012. As was the case after pre-consultation, the SPC made extensive amendments to the Plans and Explanatory document as a result of the feedback received through public consultation. While fewer policies required substantial changes, almost all policies were revised slightly to provide additional clarity or to conform to legislative requirements.

The Proposed Source Protection Plans and Explanatory Document were posted online for a final 30-day comment period beginning on July 13th, 2012. Any additional comments received during this time were attached to the Proposed Source Protection Plans and submitted to the Minister of the Environment.

Policy Layout

The policies in the Ausable Bayfield and Maitland Valley Proposed Source Protection Plans are divided into three land use categories: residential, agricultural, and all other uses (including commercial, industrial, institutional, recreation, open space, extraction, etc.). By grouping policies in this way, both implementing bodies and landowners can quickly reference all of the policies that may apply to a property they are interested in, based on the land use.

While several commenters praised the Committee for taking this approach, concerns were raised by the Ministry of the Environment and Climate Change during both public and pre-consultation. The concern was that by only including policies for certain threat activities in one land use category, policy gaps could be created. For example, snow storage policies were originally only included in the “All Other Land Uses” category. This was because the amount of snow storage required to create a significant drinking water threat was so substantial that the Committee felt it was unlikely that this type of threat would occur on an agricultural or residential property. However, the Committee ultimately decided that in the event that this type of activity ever occurred on a residential or agricultural property, these policies should be repeated in all land use categories. In fact, this is what the Committee chose to do in most cases, and therefore, the majority of policies are repeated in all three land use categories. In certain cases, where policies were not repeated, an explanation is provided below in the policy specific rationale.

Broader Financial Consideration within the Source Protection Plan

The ABMV Source Protection Committee is very aware of the concerns that affected residents and implementing bodies have about the costs of implementing policies. In fact, several members of the public brought these concerns forward during the public consultation phase. There were some who stated objections to the entire source protection planning process, and others who suggested that municipal wells either be moved, or land be purchased from affected property owners. Some members of the public simply stated that appropriate compensation should be provided.

While the Committee carefully considered all of the feedback they received during consultation, including objections to the process, they were legislated to develop Source Protection Plans under the *Clean Water Act*. Given the scope for which they could work under locally, the Committee feels they have developed policies that are effective at protecting drinking water sources, but also practical and cost-effective to implement.

The Source Protection Committee originally attempted to include compensation for affected landowners in their submission of the Terms of Reference. However, the MOECC required the Committee to remove the word “compensation” in order to have the Terms of Reference approved. To address concerns about implementation costs, the SPC has included policy (O.11.5) to recommend that the Ministry of the Environment and Climate Change continue funding the Ontario Drinking Water Stewardship Program, which provides financial assistance or incentives to landowners for eligible projects which help protect source water. The Committee also intend to press the MOECC to provide compensation in their covering letter with the submission of the plan.

While the province needs to provide further direction on funding the costs of implementing policies, municipalities must consider how to distribute costs in order to continue providing and protecting local water to their customers. Municipalities would incur the costs of administering Part IV tools (Section 57 Prohibition, Section 58 Risk Management Plans and Section 59 Restricted Land Use) because they are responsible for enforcing these tools under the *Clean Water Act, 2006*. Under the *Clean Water Act*, municipalities can charge fees to recover the cost of administering Part IV tools. Costs could be borne by those requiring a Risk Management Plan (like a permit fee), costs could be covered by those using the municipal water being protected (charge on water bills), or costs could be covered by all property owners through taxes.

Climate Change Considerations

Chapter five of the Assessment Reports contain summaries of the projected impacts of climate change in both the Ausable Bayfield and Maitland Valley Source Protection Areas. These summaries indicate a potential for negative impacts on water quantity in the Region. However, those impacts are not considered to be significant. The development of the draft Source Protection Plan was not directly influenced by the climate change summary in the Assessment Reports give that water quantity was not identified as a significant threat.

Explanation of Policy Decisions

There are a total of 21 categories of activities listed as potential drinking water threats in the *Clean Water Act* regulations. The explanation of policy decisions below is organized by various threat categories. In some cases, the categories are further subdivided (e.g., sewage is discussed separately from septic systems and holding tanks), and in some cases categories have been combined (e.g., salt storage and salt application).

The provincial Tables of Drinking Water Threats (Threats Tables) are also part of the *Clean Water Act* regulations. The Threats Tables take each of the 21 categories of activities and state what circumstances must be present in order for that activity to be considered as a potential drinking water threat. The circumstances establish specific quantities or thresholds that an activity must meet in order for it to be a significant threat. For example, fuel storage is only a significant threat in areas with a vulnerability score is 10, and if it is stored below grade in quantities greater than 250 litres, or above grade in quantities greater than 2500 litres. These specific circumstances are prescribed by the Province and, for the most part, are identified in each significant threat policy in the draft Source Protection Plan, so that it is clear to the reader what type of activity the policy is addressing. The Source Protection Committee has no authority to determine under what circumstances an activity becomes a significant drinking water threat. However, they are responsible for developing policies to address every significant threat circumstance.

Concerns were raised during public consultation that errors or omissions could occur if the complete threat circumstances were listed within each policy, rather than just indicating that policies applied wherever the threat was significant. If the policies were changed to remove the circumstances, then the onus would be on the reader or implementing body to determine under what circumstances are significant by referencing the MOECC Tables of Circumstances. The Source Protection Committee liked the circumstances included within the policies so that readers could gain a sense of what the policies actually applied to. They therefore chose to leave the circumstances in the policies but clarified that the circumstances listed are examples only. For full policy circumstances, the reader should still reference the MOECC Tables of Circumstances. They can be found through the following link:

<https://www.ontario.ca/environment-and-energy/provincial-tables-circumstances>

Septic Systems

Septic systems and holding tanks are considered a drinking water threat due to the potential discharge of contaminants such as *E. coli*, acetone, chloride, nitrogen and phosphorus, and their potential impact on sources of drinking water. There are two categories of systems: small and large. Small systems (design flow less than or equal to 10,000 L/day) are subject to approval under the *Ontario Building Code Act*. Small systems most frequently service individual residences in rural areas or hamlets or small villages that do not have municipal or communal sewage services. Large systems (design flow greater than 10,000 L/day) are subject to approval by the MOECC under the *Ontario Water Resources Act (OWRA)*. Also, any system, no matter its size, which cannot be located within the confines of a single property, is subject to approval by the MOECC under the *OWRA*. Schools, campgrounds, larger businesses and communal systems are examples of facilities that may require a large system. These systems are approved by the MOECC and issued an Environmental Compliance Approval (formerly Certificate of Approval). These approvals are considered “prescribed instruments” under the *Clean Water Act* through which the Source Protection Plan policy objectives can be achieved.

Policies R.1.1, A.1.1 and C.1.1

The intent of these policies is to prohibit new development (such as lot creation) where significant septic systems threats can exist, unless that development is serviced by a municipal sanitary sewer. This will limit new septic systems from being established in areas where they would pose a significant threat to sources of municipal drinking water. While municipal sanitary sewers are also considered a significant drinking water threat, they transport sewage away from wellhead protection areas for off-site treatment and disposal. This makes them a preferred alternative to septic systems. These policies are also consistent with the Provincial Policy Statement.

Pre-consultation feedback indicated that these policies would limit development of lots that are only partially within a wellhead protection area where the vulnerability score is 10. The SPC therefore added the following to the last sentence in each of these policies “...or the system can be located outside of the area with a vulnerability score of 10”.

Policies R.1.2, A.1.2 and C.1.2

The intent of these policies is to prohibit future large septic systems that are approved under the *Ontario Water Resources Act* from establishing in areas where the vulnerability score is 10. The SPC is of the opinion that future large septic systems should be located outside of wellhead protection areas where the vulnerability score is 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, through feedback received during pre-consultation, the SPC chose to prohibit through prescribed instruments instead. Since these types of systems are regulated by the MOECC through Environmental Compliance Approvals, this approach made more sense.

Policies R.1.3, A.1.3, and C.1.3

Originally the SPC created these policies with the intent that as new septic systems were installed, or existing systems were replaced, these policies would require those systems to be tertiary treatment systems through land use planning. While the costs of replacing septic systems can be substantial, the SPC was of the opinion that the costs of tertiary systems are not significantly higher than a standard system, and those costs would be offset by the benefits of an extra level of treatment for sewage and additional protection for drinking water supplies.

However, many comments were received during pre-consultation indicating that this type of policy was not implementable. The SPC discussed each of these comments at length and chose to change these policies dramatically. Instead of using land use planning to require tertiary systems, they chose to write a specific action policy requiring the lot size for any proposed development on existing lots of record that would include a small on-site sewage system, be based at a minimum on the most current MOECC Guidelines for Individual On-Site Sewage Systems. Additionally, the hydrogeological assessment to

determine the appropriate development density shall be conducted by a professional licensed to carry out that work. The SPC felt that this would ensure that lots are of an acceptable size and scale to safely accommodate a septic system, without burdening landowners with the cost of installing a tertiary treatment system.

Policies R.1.4, A.1.4, and C.1.4

These policies require that as existing septic systems are replaced or new systems are installed, they must be located as far from the wellhead as possible. The rationale behind this was that if contaminants were discharged from the system, the further away the system is from the wellhead, the further the contaminants would have to travel to reach the drinking water supply. By requiring new/replacement systems to be located as far from the well as possible, the risk of contamination is decreased. Since moving a septic system further away from a municipal well could potentially move it closer to a private well, the policies specify that such a move must also be in compliance with the Building Code. Thus, the septic system will also stay the appropriate distance away from private wells.

Policies R.1.5, A.1.5 and C.1.5

The intent of these policies is to mandate connection to a municipal sanitary sewer where such sewers exist, and would affect only those properties which are directly adjacent to the existing sanitary system. This will affect any landowners who own property in areas with a vulnerability score of 10, whose municipalities have installed sanitary sewers, but they have yet to connect. The SPC felt that three years (or at time of sale) was a reasonable amount of time for these connections to be made, and hope that the costs of connection could be offset through stewardship funding (see policy O.11.5). Pre-consultation feedback indicated that municipalities are not immediately informed about property sales. The policy was therefore changed to stipulate within two years of the time of sale.

While municipal sanitary sewers are also considered a significant drinking water threat, they transport sewage away from wellhead protection areas for off-site treatment and disposal. The SPC feels that this makes them a preferred alternative to septic systems. Although the cost of connecting to a sanitary sewer is high, the SPC is of the opinion that the number of affected properties is low.

Policies R.1.6, A.1.6, and C.1.6

Septic systems that are approved under the *Ontario Water Resources Act* are subject to rigorous requirements regarding preventing and monitoring for contamination. While the SPC is of the opinion that future septic systems should be prohibited from establishing (as per policies R.1.2, A.1.2 and C.1.2), they feel that any existing systems should be **managed**. These policies will require the MOECC to review any existing (policies R.1.6, A.1.6 and C.1.6) environmental compliance approvals for large septic systems, and, if required, make amendments to adequately manage the risk to drinking water. The SPC is of the opinion that having the MOECC manage this activity through their existing environmental compliance approvals would be an effective way to protect drinking water sources.

The original timeframe given for the MOECC to review and amend existing ECA's was one year. However, through pre-consultation and public consultation feedback the MOECC requested the timeframe be changed to three years or another date to be determined by the Director. The SPC felt

that the three year timeframe coincided with the timeframe provided to establish risk management plans where required, and therefore agreed to change the timeframe from one year to three years. They did not however, include the provision “or another date to be determined by the Director”. The SPC felt that this left the conformity date too open, and provided too much flexibility, particularly when no other policies in the plan provide this type of flexibility.

Policies R.1.7, A.1.7, and C.1.7

The Ontario Building Code’s new septic system maintenance inspection program will ensure septic systems and holding tanks are inspected every five years in areas where they are considered a significant drinking water threat. These policies require that an education program be developed for all landowners who own or operate a septic system where the vulnerability score is 10. The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA’s. However, it is expected that the work be shared among both SPA’s, particularly with respect to delivery.

The program will run in conjunction with the mandatory inspection program and should include information on the proper use and maintenance of a septic system. The SPC feels that the information provided through education will increase awareness about mandatory inspections as well as the potential threat to drinking water. There are existing successful examples within the SPA which may be used as a basis for such an education program. During public consultation, it was pointed out that the one-year timeframe provided for implementation of these policies did not correspond with the septic inspection program which will run on a five-year cycle. These policies were therefore revised to clarify that the education program should be developed and staff trained within one year, but that delivery of the program coincide with the mandatory inspection program.

Concerns were raised through pre-consultation about partnerships between municipalities and conservation authorities, the delivery and development of education and outreach by the lead SPA rather than both SPA’s, and cross-border issues for municipalities that fall into two different regions. These concerns were raised for all of the education and outreach policies included in the draft plans.

For those municipalities that are sited in more than one region, approaches to education, risk management and some other policies present unique challenges. From the outset, source protection planning was designed to be delivered on a watershed basis. The challenges experienced in source protection will be similar to those experienced in other watershed-based programs. However, the solutions will also be similar.

The lead SPA indicated through pre-consultation feedback that they had the staff capacity to undertake the responsibilities outlined in these policies, but would work largely in partnership with the neighbouring SPA, as well as other subject matter experts as required.

The SPC felt that the policies as written, foster collaboration between municipalities and conservation authorities, build on existing expertise and capacity, and minimize cost while maximizing effectiveness. For all of these reasons, as well as the reasons listed in the paragraphs above, the Source Protection Committee chose not to make any significant changes to any of the education and outreach policies in the plan. However, it was also noted during pre-consultation that the policies were not clear who the implementing body was for these policies. The SPC therefore, changed the wording of the policies from “municipalities shall work in cooperation with the lead SPA” to “municipalities shall work in collaboration with the lead SPA” in order to make it clear that both parties are legally bound by these policies.

Policies R.1.8, A.1.8 and C.1.8

The intent of these policies is to **recommend** that in highly vulnerable aquifers and significant groundwater recharge areas, MOECC require all future or replacement septic systems that are regulated under the *Ontario Water Resources Act* be tertiary treatment systems. Although significant threats cannot occur in HVA’s and SGRA’s, the SPC chose to write optional policies to address septic systems as moderate and low threats in these areas. While the costs of tertiary systems can be higher than standard systems, the SPC feels that they provide the benefit of an extra level of treatment for sewage and additional protection for drinking water supplies. Since these policies address moderate and low drinking water threats only, they are “have regard for policies” only.

During pre-consultation, the MOECC submitted a comment requesting more flexibility be provided in these policies rather than requiring tertiary treatment systems. Since these are “have regard for” policies only, the SPC decided to change the language from “the MOECC should **require** tertiary systems” to “the MOECC should **recommend** tertiary systems”. More flexibility and policy clarity was also requested during the public consultation phase of the process. The policies were therefore further amended to specify that where the Director considers it appropriate, it was recommended that terms and conditions be included in the Environmental Compliance Approval to require a tertiary system.

Policies R.1.9, A.1.9 and C.1.9

If an on-site sewage system is functioning properly, contaminants from the system are greatly reduced or eliminated. Therefore, ensuring systems are functioning properly is an effective approach to ensure they cease to be a significant drinking water threat. The new On-site Sewage System Maintenance Inspection Program is intended to determine whether or not systems are functioning properly. This policy supports the inspection program because it has already been made mandatory through recent amendments to the Ontario Building Code. The inspection program will be implemented by the local Principal Authorities (in the ABMV Region, this is either the Municipality or the local Health Unit), and will apply where on-site sewage systems are a significant drinking water threat (Wellhead Protection Areas with vulnerability scores of 10). Compliance dates are also set out in the amendment to the Ontario Building Code. Inspections must be completed within five years of the Assessment Report being approved (January 9th, 2017 in the ABMV Region) and then must be inspected once every five years thereafter.

This policy was added to the Plan while it was under review by the Ontario Ministry of the Environment and Climate Change. The SPC discussed and concluded that receiving an annual report on the mandatory inspection requirements would be beneficial. Since the number of septic systems that are considered a significant drinking water threat, are higher than any other threat type in the ABMV Region, the SPC felt it would be prudent to have regular updates on the results of this new inspection program. Since this is a significant threat policy, Principal Authorities will be required to report on the implementation of this policy annually, as per Policy P.12.10.

Fuel Handling and Storage

Fuel storage tanks have the potential to leak and contaminate both ground and surface water. A small volume of spilled fuel can contaminate a large volume of water. Residential heating oil is commonly stored in above or below ground storage tanks (approximately 900 litres in quantity) on residential properties where services are unavailable (e.g., natural gas). These furnace oil tanks are used for home or business heating purposes and may contain different types of fuels depending on the use. For commercial and industrial properties the types of liquid fuels under consideration include hydrocarbon fuel (e.g. gasoline) and diesel. The types of storage facilities to be considered include bulk plants or facilities where it is manufactured or refined; permanent or mobile retail outlets; marinas; cardlocks/keylocks (unattended liquid fuel depots); private outlets (e.g. public works yard); and farms.

The Tables of Drinking Water Threats identify BTEX compounds (benzene, toluene, ethylbenzene and xylene) and petroleum hydrocarbons F1 to F4 as contaminants that could make their way into surface water or groundwater from spills associated with the handling and storage of liquid fuel. Classifying existing liquid fuel threats as a significant drinking water threat is dependent on vulnerability zones, vulnerability score, the type of storage and the volume of liquid fuel stored.

Policies R.2.1, A.2.1 and C.2.1

These policies are intended to ensure that new fuel tanks be prohibited. The SPC is of the opinion that future fuel storage should be located outside of wellhead protection areas where the vulnerability score is 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities.

Using Section 57 Prohibition to prohibit future threats instead would take immediate effect whenever the Plan takes effect. Additionally, using Section 57 Prohibition would provide clarity about which

activities are prohibited as they would be directly stated in the policies and are not subject to debate. Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using Section 57 Prohibition under the *Clean Water Act* to prohibit most future threats from establishing, including future fuel storage and handling.

Policies R.2.2, A.2.2 and C.2.2

These policies require all landowners with existing fuel storage (where they are a significant threat as per the MOECC Tables of Circumstances) to develop a Risk Management Plan (RMP), and are intended to complement the other corresponding education and outreach policies described below. According to industry experts, the most common failures related to fuel handling and storage are: corrosion of tanks, problems with oil lines and overfills. There are effective risk mitigation measures to address all of these potential failures. With the potential consequences of a failure being severe (clean-up costs can exceed a million dollars), the SPC felt that a RMP would be necessary to ensure effective risk mitigation measures were undertaken. The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Through pre-consultation feedback, it was requested that risk management plans not be used for residential home heating oil. However, after SPC discussion of this request, it was decided that the policies requiring RMP's for home heating oil should remain, since the SPC feels this is the best way to ensure that the threat ceases to be significant. Additional pre-consultation feedback requested that since there is already legislation in place that regulates fuel storage, risk management plans be based on this existing legislation, rather than creating new requirements. The SPC therefore changed these policies to indicate that the RMP's should reflect current Ontario regulations such as, but not limited to, the requirements of the Liquid Fuels Handling Code and/or the Fuel Oil Code. This will be used as a starting point for the Risk Management Plan, but is not intended to limit the flexibility of the RMP negotiated between the RMO and the persons engaged in the significant threat activity.

Minor wording changes were made to these policies as a result of pre-consultation feedback from MOECC in order to tie the policies to the legal effect of the *Act* in the event of an appeal.

Policies R.2.3, A.2.3 and C.2.3

The intent of these policies is to develop an education and outreach program for all residential property owners which store fuel in the quantities specified (quantities are based on the MOECC Tables of Circumstances). The program would provide information on the potential threat to drinking water and emphasize the need to inspect, upgrade, repair, retrofit, or decommission heating fuel oil tanks. Individuals, especially those new to rural communities where these activities are more prevalent, may not be aware of the requirements to have tanks inspected and certified on an annual basis. This

information would increase awareness and also provide advice to those residents who will require a risk management plan.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

These policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Policies R.2.4, A.2.4 and C.2.4

While the MOECC Tables of Circumstances identify certain quantities of fuel as significant threats (greater than 250 L below grade and 2500 L above grade), the SPC considers all quantities of fuel to be a potential risk to drinking water. These policies were therefore created as a recommendation that the mandatory education and outreach programs be expanded to include to all landowners who store any quantity of fuel in areas with a vulnerability score of 10. Individuals, especially those new to rural communities where these activities are more prevalent, may not be aware of the requirements to have tanks inspected and certified on an annual basis. This information would increase awareness of the potential threat to drinking water.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

The SPC felt this would be particularly useful for landowners who have home heating oil tanks located outdoors. Although outdoor tanks are not considered a significant threat unless they are storing greater than 2500 litres, the SPC believes that the risk of a spill is just as likely for outdoor tanks as those located in a basement, and owners should be properly informed about how to protect and maintain these tanks.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Grazing, Pasturing and Outdoor Confinement Areas

The use of land as livestock grazing or pasturing land, and outdoor confinement areas or a farm animal

unit is always a significant threat. Nutrients and pathogens found in animal manure are contaminants that could make their way into surface water and groundwater from outdoor livestock areas. Pathogens can cause a variety of short-term and long-term human health impacts, and excessive nutrients can cause toxic algae blooms or negative human health effects. Generally speaking, keeping greater numbers of livestock in a space intensifies the accumulation of nutrients and pathogens, thereby increasing the risk of contamination and the requirement for more active management.

Outdoor livestock areas are partly regulated by the OMAFRA under the *Nutrient Management Act*. The main philosophy of the *Nutrient Management Act* is that properly managing nutrients for crop requirements will benefit crops while minimizing environmental impacts including impacts to water quality. A Nutrient Management Strategy prepared by a certified individual pursuant to the *Nutrient Management Act* sets out how all the nutrients that are generated on the farm will be managed. The strategy would address nutrients generated from a farm-animal yard or outdoor confinement area. A Nutrient Management Plan sets out how much and where the nutrients will be applied to the land. Nutrient Management Strategies and Plans may be used as Prescribed Instrument tools under the *Clean Water Act*. However, these instruments are not required for all farms and they do not address the use of land for grazing and pasturing.

While grazing, pasturing and outdoor confinement areas are primarily agricultural activities, the policies pertaining to these activities are also included in the residential and other land uses sections. This is to ensure that policies are in place to protect drinking water should these activities ever occur on land uses other than agricultural. Further explanation around the policies contained in each land use section can be found above under “Policy Layout”.

Policies R.3.1, A.3.1 and C.3.1

These policies are intended to ensure that future outdoor confinement areas will not be established in a WHPA-B where the vulnerability score is 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the scope and size of areas in the ABMV region with a vulnerability score of 10 within WHPA-B are very limited, the SPC believes that these prohibitions will have little impact on future growth and development. The SPC initially chose to use land use planning to prohibit future outdoor confinement areas. However, this was changed to a section 57 prohibition based on feedback received from MOECC during plan review. It should be noted that other policies address this threat in WHPA-A.

Feedback provided through both pre- and public consultation by OMAFRA indicated that they were not supportive of any prohibitions (existing or future) within WHPA-B. However, through assessments conducted during the preparation of the Assessment Reports it was determined that there are only very small parcels of agricultural land within WHPA-B where the score is 10, which are either being cropped or pastured. There are no existing outdoor confinement areas within WHPA-B where the score is 10. Given that these policies only apply within a very limited area and the potential pathogen risk that outdoor confinement areas present, the Committee chose to leave these policies as they were.

Policies R.3.2, A.3.2 and C.3.2

Pathogens are one of two contaminants that were identified as extremely problematic from a human health standpoint if they got into source water (the other is chemicals, including DNAPLs). Because of this threat, the SPC felt that **ALL** (existing and future) grazing, pasturing and outdoor confinement areas should be prohibited within 100 metres of a municipal wellhead (WHPA-A). The SPC felt that the 100 metre zone is already widely accepted as a “pathogen free” zone and the impacts on existing agricultural operations in the ABMV region would be low. The SPC also felt that since the events that occurred in Walkerton in 2000 were caused by pathogen contamination of the water supply which resulted in the development of the *Clean Water Act* and source protection planning, that prohibition in the 100 metre zone was the only reasonable measure to take. It should be noted that the SPC added the provision “where greater than 1 nutrient unit per acre would be generated” to grazing and pasturing. This was added since it was of the opinion of the Committee that any grazing and pasturing that did not generate more than 1 nutrient unit per acre did not pose a serious enough threat to drinking water as to require prohibition.

The SPC chose to use Section 57 prohibition to prohibit these activities since this is the only tool that can be used to prohibit both existing and future threats. Minor wording changes were made to these policies as a result of pre-consultation feedback from MOECC in order to tie the policies to the legal effect of the *Act* in the event of an appeal.

Feedback provided through both pre- and public consultation by OMAFRA indicated that they were not supportive of the prohibition of existing outdoor confinement areas in WHPA-A, since this could create economic hardship for farmers that have made significant investments in these facilities. However, through detailed assessments and site surveys conducted during the preparation of the Assessment Reports, it was determined that there are no existing outdoor confinement areas within WHPA-A. Given that none of these facilities currently exist within a WHPA-A in the ABMV Region, the Committee chose to leave these policies as they were.

Section 57 (2) of the *Clean Water Act* states that where Section 57 prohibitions have been applied to existing activities, those prohibitions shall not take effect until 180 days after the plan takes effect or such later date as set out in the source protection plan. Based on a recommendation from the MOECC during plan review, the SPC added a statement to these policies indicating their intent that the prohibitions of existing activities shall take effect 180 days after the plan takes effect, in order to provide clarity for the reader.

Policies R.3.3, R.3.4, R.3.5, A.3.3, A.3.4, A.3.5, C.3.3, C.3.4 and C.3.5

With the potential consequences of contamination being severe, the SPC chose to take a more prohibitive approach to grazing/pasturing and outdoor confinement areas. While they determined that these activities should be prohibited within 100 metres of a wellhead, they felt that a Risk Management Plan was more appropriate in WHPA-B where the vulnerability score is 10. Since the SPC stipulated that grazing/pasturing was only prohibited within WHPA-A where greater than 1 nutrient unit per acre was generated, they also chose to use a RMP in WHPA-A where less than 1 nutrient unit per acre was

generated (Policies R.3.5, A.3.5 and C.3.5). They chose the RMP approach for both existing and future grazing/pasturing threats (Policies R.3.3, A.3.3 and C.3.3), and only existing threats for outdoor confinement areas (Policies R.3.4, A.3.4 and C.3.4). Future outdoor confinement areas are prohibited through policies R.3.1, A.3.1 and C.3.1.

Although the committee discussed at length, the effectiveness of the existing nutrient management instruments, they determined that a Risk Management Plan was the best way to ensure that these threats are managed. This was based on the fact that not all farms require Nutrient Management Strategies or Plans, and for the farms that do, the Strategies and Plans do not always require approval. Additionally, the *Nutrient Management Act* does not have standards for managing the use of land for livestock grazing and pasturing.

Comments received through pre-consultation and public consultation from both OMAFRA and Wellington County requested that prescribed instruments be used for those farms that already have a Nutrient Management Strategy or Plan in place. The SPC considered these comments, but chose to continue to require a RMP based on the reasons listed above. However, the SPC recognizes that these instruments provide necessary and effective environmental benefits through the nutrient management standards they require. Therefore, the Committee added to the policy text that Nutrient Management Strategies and Plans are expected to form the basis of the RMP. They will be used as a starting point for the RMP, but are not intended to limit the flexibility of the RMP negotiated between the RMO and the persons engaging in the significant threat activity. The RMP would take into account the good work already being done by farmers on their properties.

The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of pre-consultation and public consultation feedback from MOECC in order to provide more policy clarity and tie the policies to the legal effect of the *Act* in the event of an appeal.

Policies R.3.6, A.3.6 and C.3.6

The intent of these policies is to provide education and outreach to all residential landowners who own, board or keep large animals. The policies are intended to complement the other grazing, pasturing and outdoor confinement area policies that have been created. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan. It is anticipated that these policies will promote voluntary action to address significant threats.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

The policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Sewage Systems and Sewage Works

The following circumstances describe when the establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage is a significant threat:

- A stormwater management facility handling run-off from more than 10 hectares (in industrial or commercial land use areas) or more than 100 hectares (in rural, agricultural or residential land use areas).
- Sanitary sewers and related pipes that collect, store transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.
- Sewage treatment plant effluent discharges (includes lagoons) that discharges to surface water through a means other than a designed bypass
- A sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility.
- Industrial effluent discharges (including mine tailings ponds).

The *Ontario Water Resources Act* applies to approvals of prescribed instruments to establish, alter, extend or replace new or existing sewage works with a design capacity of greater than 10,000 litres per day. An Environmental Compliance Approval (ECA) is issued for approved systems, and the Ministry of the Environment and Climate Change is responsible for enforcing the *Act*. Environmental Compliance Approvals for sewage works can be used as a prescribed instrument tool to manage significant drinking water threats. However, in some specific circumstances, an ECA is not required.

Policies pertaining to sewage systems and sewage works are included in all land use sections of the Plans. This is to ensure that policies are in place to protect drinking water should these activities ever occur on any given land use. Further explanation around the policies contained in each land use section can be found above under "Policy Layout".

Policies R.4.1 to R.4.5, A.4.1 to A.4.5 and C.4.1, to C.4.5

These policies are intended to ensure that future sewage systems and sewage works (as described in the policies) be prohibited where the vulnerability score is 10 (Policies R.4.1, R.4.2, A.4.1, A.4.2, C.4.1 and C.4.2) and 8 or greater (Policies R.4.4, R.4.5, A.4.4, A.4.5, C.4.4 and C.4.5). The SPC is of the opinion that any future sewage works described in these policies should be located outside of wellhead protection areas where the vulnerability score is 8 or 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 8 or 10 is very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities. Since most sewage works are regulated under the *Ontario Water Resources Act*, prohibiting these threats through prescribed instruments is a useful way to prevent these threats from establishing in the future.

Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using prescribed instruments to prohibit future sewage threats (Policies R.4.1, A.4.1, C.4.1, R.4.4, A.4.4 and C.4.4). However, while most sewage threats are subject to approval by the MOECC through Environmental Compliance Approvals, there are some circumstances where they are not. Policies R.4.2, A.4.2, C.4.2, R.4.5, A.4.5 and C.4.5 were written to capture those future sewage threats which do not need an ECA, and prohibit them through Section 57 Prohibition instead.

Additional feedback through pre-consultation suggested that future sanitary sewers should be managed rather than prohibited since this could significantly impact municipalities from delivering essential services. The SPC agreed that sanitary sewer pipes are necessary components of infrastructure, and decided to remove them from future prohibition policies and add additional policies to manage them instead (Policies R.4.3, A.4.3 and C.4.3). These policies indicate that the MOECC should ensure all future ECA's contain terms and conditions to adequately manage risks to municipal drinking water. The SPC felt that leaks and cracks in sewer lines have the potential to lead to serious contamination of drinking water, and therefore suggested that that ECA's should include conditions for the proponent to conduct camera inspections every 5 years. This will ensure that pipes in these areas are inspected regularly and receive priority maintenance if required.

Policies R.4.6, R.4.7, A.4.6, A.4.7, C.4.6 and C.4.7

Sewage systems and sewage works that are regulated by MOECC are already subject to rigorous requirements regarding preventing and monitoring for contamination. The SPC is of the opinion that

having the MOECC manage existing sewage threats through their Environmental Compliance Approval process would be an effective way to protect drinking water sources. These policies will require MOECC to review any existing ECA's and, if required, make amendments to adequately manage the risk to drinking water. These policies apply to existing sewage systems and sewage works within areas with a vulnerability score of 10 (Policies R.4.6, A.4.6 and C.4.6) and areas with a vulnerability score of 8 or greater (R.4.7, A.4.7 and C.4.7).

Originally the SPC had indicated that the MOECC should review and amend all existing ECA's within one year of the plan taking effect. However, MOECC requested through pre-consultation and public consultation that this time period be extended to three years or another date determined by the Director. The SPC felt that the three year timeframe coincided with the timeframe provided to establish risk management plans where required, and therefore agreed to change the timeframe from one year to three years. They did not however, include the provision "or another date to be determined by the Director". The SPC felt that this left the conformity date too open, and provided too much flexibility, particularly when no other policies in the plan provide this type of flexibility.

Policies R.4.8, R.4.9, A.4.8, A.4.9, C.4.8 and C.4.9

While most sewage works are subject to approval by the MOECC through Environmental Compliance Approvals, there are some circumstances where they are not. The intent of these policies is to capture those sewage works which do not need an ECA and require them to develop a risk management plan instead in areas where the vulnerability score is 10 (R.4.8, A.4.8 and C.4.8) and areas where the score is 8 or greater (R.4.9, A.4.9 and C.4.9).

The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of pre-consultation feedback from MOECC in order to tie the policies to the legal effect of the Act in the event of an appeal.

Policies R.4.10, A.4.10 and C.4.10

These policies are intended to complement the other sewage system and sewage works policies that have been created. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan or amendments to a prescribed instrument. It is anticipated that these policies will promote voluntary action to address significant threats.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and

knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

The policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans or prescribed instrument amendments. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

R.4.11, A.4.11 and C.4.11

These policies require municipalities to, where feasible, locate future sanitary sewers and related pipes outside of wellhead protection areas where the vulnerability score is 10. While the committee chose to remove sanitary sewers and related pipes from future prohibition policies and manage them instead (as per policies R.4.3, A.4.3 and C.4.3), they would still like to see future sanitary sewers located outside of areas with a vulnerability score of 10 wherever possible.

Waste Disposal Sites

The following circumstances describe when the establishment, operation or maintenance of waste disposal sites within the meaning of Part V of the *Environmental Protection Act* is a significant threat:

- The application of septage to land (hailed sewage) or,
- The storage, treatment and discharge of tailings from mines when:
 - Tailings are stored in a pit or
 - Tailings are stored in an above grade impoundment structure,
- The landfarming of petroleum refining waste in areas that are more than 10 hectares or,
- The landfilling of: hazardous waste, municipal waste, solid non-hazardous industrial or commercial waste or,
- The injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year or,
- PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container or,
- The storage of hazardous waste or liquid industrial waste or,
- The storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Waste disposal sites are generally regulated by the MOECC through the Environmental Compliance Approval process under the *Environmental Protection Act*. These approvals are considered "prescribed instruments" under the *Clean Water Act* through which the Source Protection Plan policy objectives can

be achieved. This means that the MOECC's decisions about approvals must conform to significant threat policies in the Source Protection Plan (if any activity is prohibited, an approval cannot be issued, or if the risks of an activity must be managed, the approval must contain appropriate risk management terms and conditions).

Two of the waste disposal site categories are not regulated by the MOECC under the *Environmental Protection Act*. These are the storage, treatment and disposal of mine tailings which are regulated by the MOECC under the *Ontario Water Resources Act* and PCB waste storage sites which have no prescribed instrument. Policies for PCB waste storage sites and any other waste disposal site not governed by a prescribed instrument can therefore use other policy tools such as Section 57 Prohibition and Section 58 Risk Management Plans to address significant threats.

Policies pertaining to waste disposal sites are included in all land use sections of the Plans. This is to ensure that policies are in place to protect drinking water should these activities ever occur on any given land use. Further explanation around the policies contained in each land use section can be found above under "Policy Layout".

Policies R.5.1, R.5.2, R.5.3, A.5.1, A.5.2, A.5.3, C.5.1, C.5.2 and C.5.3

These policies are intended to ensure that future waste disposal sites (as described in the policies) be prohibited where the vulnerability score is 10 (Policies R.5.1, R.5.2, A.5.1, A.5.2, C.5.1 and C.5.2) and 8 or greater (Policy R.5.3, A.5.3 and C.5.3). The SPC is of the opinion that any future waste disposal site described in these policies should be located outside of wellhead protection areas where the vulnerability score is 8 or 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 8 or 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit these threats was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities. Since most waste disposal sites are regulated under the *Environmental Protection Act*, prohibiting these threats through prescribed instruments is a useful way to prevent these threats from establishing in the future.

Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using prescribed instruments to prohibit future waste disposal sites (Policies R.5.1, R.5.3, A.5.1, A.5.3, C.5.1 and C.5.3). However, while most waste disposal sites are subject to approval by the MOECC through Environmental Compliance Approvals, there are some circumstances where they are not. Policies R.5.2, A.5.2 and C.5.2

were therefore written to capture those future waste disposal sites which do not need an ECA, and prohibit them through Section 57 Prohibition instead.

Policies R.5.4, A.5.4 and C.5.4

Waste disposal sites that are regulated by MOECC are already subject to rigorous requirements regarding preventing and monitoring for contamination. The SPC is of the opinion that having the MOECC manage existing waste disposal threats through their Environmental Compliance Approval process would be an effective way to protect drinking water sources. These policies will require MOECC to review any existing ECA's and, if required, make amendments to adequately manage the risk to drinking water. These policies apply to existing waste disposal sites within areas with a vulnerability score of 10.

Originally the SPC had indicated that the MOECC should review and amend all existing ECA's within one year of the plan taking effect. However, MOECC requested through public and pre-consultation that this time period be extended to three years or another date determined by the Director. The SPC felt that the three year timeframe coincided with the timeframe provided to establish risk management plans where required, and therefore agreed to change the timeframe from one year to three years. They did not however, include the provision "or another date to be determined by the Director". The SPC felt that this left the conformity date too open, and provided too much flexibility, particularly when no other policies in the plan provide this type of flexibility.

Based on assessments and site surveys conducted during the preparation of the Assessment Reports, it was determined that there are no existing waste disposal sites that meet the circumstances to make it a significant threat activity where the vulnerability score is 8 or greater. Policies R.5.3, A.5.3 and C.5.3 prohibit these activities from establishing in the future. Since the Committee is confident that these threats do not currently exist and will not be established prior to the approval of the Plans, they chose not to write a policy to address existing waste disposal site threats where the score is 8 or greater.

Policies R.5.5, A.5.5 and C.5.5

While most waste disposal sites are subject to approval by the MOECC through Environmental Compliance Approvals, there are some circumstances where they are not. The intent of these policies is to capture those waste disposal sites which do not need an ECA, and require them to develop a risk management plan instead.

The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of public and pre-consultation feedback from MOECC in order to provide policy clarity and tie the policies to the legal effect of the *Act* in the event of an appeal.

Policies R.5.6, A.5.6 and C.5.6

These policies are intended to complement the other waste disposal site policies that have been created. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan, or amendments to a prescribed instrument. It is anticipated that these policies will promote voluntary action to address significant threats.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

These policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans or prescribed instrument amendments. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Policies R.5.7, A.5.7 and C.5.7

The SPC is aware that many households and small business may store small quantities of hazardous waste, but are not considered a significant waste disposal threat. These landowners may not be aware of proper storage and disposal requirements for hazardous wastes. These policies were therefore created as a recommendation that municipalities expand the mandatory education and outreach policies (see Policies A.5.2 and C.5.7) to all landowners who may store hazardous waste where the vulnerability score is 8 or greater. This information would increase awareness of potential threats to drinking water.

While the implementing body is the municipality, the policies indicate that they should work in cooperation with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Policies R.5.8, A.5.8 and C.5.8

The SPC is aware of several landfills that are located within HVA's and SGRA's within the ABMV Region which would constitute a moderate or low waste disposal site threat. Since waste disposal sites can pose potentially serious threats to sources of drinking water and human health, the SPC developed this policy as a recommendation that the MOECC (or municipalities if MOECC is not regulating/monitoring the site) provide the SPC with annual monitoring reports from these sites. It should be noted that the monitoring reports are only expected for landfills located in HVA's and SGRA's that would be captured under the following threat subcategory in the MOECC Table of Circumstances:

- The landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste.

Comments from MOECC during public consultation indicated that these policies did not address a specific threat, and related to the collection of environmental monitoring information, both of which are out of scope of the policy requirements. The Committee therefore amended the policies to clarify that they addressed moderate and low waste disposal site threats, and rather than requiring MOECC to send annual monitoring reports, the policies were changed to specify that the MOECC (or municipalities) should alert the SPA of any environmental problems or concerns at these sites.

Feedback was received from MOECC prior to plan approval indicating that the policy was still out of scope for a threat policy since it relates to the collection of information. It was recommended that the SPC change the policy from a moderate and low threat policy to a general outreach policy, and that the policy wording should be modified from "shall" to "is requested to". The SPC agreed to make these changes prior to resubmission of the plans for final approval.

Dense Non-Aqueous Phase Liquids (DNAPLs) Handling and Storage

DNAPLs (dense non-aqueous phase liquids) are chemical compounds that are denser than water and do not dissolve readily in water. Many DNAPLs are highly toxic, persistent and carcinogenic. DNAPLs are particularly dangerous near sources of drinking water because a small amount can cause toxic levels of contamination for human health. DNAPLs have a high solubility to toxicity ratio and are extremely difficult and sometimes impossible to remediate once an aquifer is contaminated. For these reasons, any quantity handled or stored is considered a significant threat in a very large area around municipal wells (five year time-of-travel or within WHPA-C).

The Source Protection Committee has chosen to set 25 litres as a threshold for establishing certain policies. For quantities up to 25 litres, the policies focus on providing education and outreach.

While the handling and storage of large quantities of DNAPLs is primarily associated with industrial or commercial operations, DNAPL handling and storage can also be found on residential or agricultural properties (e.g. the storage of certain types of paints). The policies pertaining to the handling and storage of DNAPLs were therefore included in all land uses sections. Further explanation around the policies contained in each land use section can be found above under "Policy Layout".

Policies R.6.1, A.6.1 and C.6.1

These policies are intended to ensure that future storage of DNAPL's is prohibited in WHPA-A, B and C. Given that DNAPLs are so highly toxic and difficult to remove from a water supply, The SPC is of the opinion that all future DNAPL storage and handling should be located outside of these areas. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk.

Due to the proliferation of small quantities of DNAPL's associated with personal/residential use, the SPC is only considering quantities greater than 25 litres to be a significant threat.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally, official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities.

Using Section 57 Prohibition to prohibit future threats instead would take immediate effect whenever the Plan takes effect. Additionally, using Section 57 Prohibition would provide clarity about which activities are prohibited as they would be directly stated in the policies and are not subject to debate. Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using Section 57 Prohibition under the *Clean Water Act* to prohibit most future threats from establishing, including future DNAPL storage and handling (Policies R.6.1, A.6.1 and C.6.1).

Policies R.6.2, A.6.2 and C.6.2

These policies stipulate that all existing handling or storage of DNAPLs within the 5 year time-of-travel (WHPA-A, B and C), requires a Risk Management Plan. Due to the proliferation of small quantities of DNAPL's associated with personal/residential use, the SPC is only considering quantities greater than 25 litres to be a significant threat.

With the potential consequences of a spill being severe, the SPC felt that a RMP would be necessary to ensure effective risk mitigation measures were undertaken. The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of public and pre-consultation feedback from MOECC in order to provide more clarity and tie the policies to the legal effect of the *Act* in the event of an appeal.

Policies R.6.3, A.6.3 and C.6.3

These policies are intended to complement the other DNAPL policies that have been created. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan. It is anticipated that these policies will promote voluntary action to address significant threats.

It should be noted that while other policies address DNAPLs in quantities greater than 25 litres, this is the only policy directed at ALL quantities of DNAPLs, including small quantities up to 25 litres. The SPC is of the opinion that both the handling and storage of these smaller quantities can be successfully managed through education and outreach alone. Due to the proliferation of small quantities of DNAPLs, and the fact that many household products may have trace amounts of DNAPLs as a component in very low concentrations, the SPC felt that a more regulatory approach to addressing small quantities of DNAPLs was unnecessary, and potentially costly and onerous for implementing bodies.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

These policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Organic Solvents Storage

Organic solvents are carbon-based substances that are capable of dissolving or dispersing other substances. The storage of organic solvents has been identified as a drinking water threat because, under certain circumstances, the following contaminants pose a hazard to drinking water sources: carbon tetrachloride, chloroform, methylene chloride (dichloromethane) and pentachlorophenol. Many are recognized as carcinogens, reproductive hazards and neurotoxins.

While the storage of large quantities of organic solvents is primarily associated with industrial or commercial operations, organic solvent storage can also be found on residential or agricultural properties (e.g. the storage of certain types of paints). The policies pertaining to the storage of organic solvents were therefore included in all land uses sections. Further explanation around the policies contained in each land use section can be found above under "Policy Layout".

Policies R.7.1, A.7.1 and C.7.1

These policies are intended to ensure that future storage of organic solvents is prohibited. The SPC is of the opinion that future organic solvent storage should be located outside of wellhead protection areas where the vulnerability score is 10. This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities.

Using Section 57 Prohibition to prohibit future threats instead would take immediate effect whenever the Plan takes effect. Additionally, using Section 57 Prohibition would provide clarity about which activities are prohibited as they would be directly stated in the policies and are not subject to debate. Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using Section 57 Prohibition under the *Clean Water Act* to prohibit most future threats from establishing, including future organic solvent storage (Policies R.7.1, A.7.1 and C.7.1).

Policies R.7.2, A.7.2 and C.7.2

Due to the threat that organic solvents can pose to human health, these policies stipulate that all existing handling or storage of organic solvents (where they are a significant threat as per the MOECC Tables of Circumstances) require a Risk Management Plan to manage the risk.

With the potential consequences of a spill being severe, the SPC felt that a RMP would be necessary to ensure effective risk mitigation measures were undertaken. The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of public and pre-consultation feedback from MOECC in order to provide more policy clarity and tie the policies to the legal effect of the *Act* in the event of an appeal.

Policies R.7.3, A.7.3 and C.7.3

These policies are intended to complement the other organic solvent policies that have been created. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan. It is anticipated that these policies will promote voluntary action to address significant threats.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

These policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under “Policies R.1.7, A.1.7 and C.1.7” beginning on page 11.

Road Salt Handling, Storage and Application

Road salt contains sodium and chloride which are contaminants that can make their way into rivers and groundwater in runoff from road salt application, storage and handling. If chlorides or sodium contaminate a groundwater aquifer it is very difficult to remediate.

Road salt application is different from most other significant threat activities since the actual landscape has to meet certain criteria for the threat to be significant. Namely, the impervious surface areas must be 80% or greater in wellhead protection areas where the vulnerability score is 10 (as prescribed by the technical rules under the *Clean Water Act*). Impervious surfaces may include paved roads, concrete surfaces, and parking lots. Currently, there are no impervious surface areas inside the wellhead protection areas of the ABMV region that exceed the 80% threshold. Therefore, road salt application is not, and cannot be, a significant threat to drinking water until such time as the landscape changes and the assessment report mapping is updated. The Source Protection Committee chose to include road salt application policies in the plans. However, it is noted in the relevant policy sections of the plans that road salt application is not, and cannot, be a significant threat to drinking water.

While road salt handling, storage and application are not typically considered residential or agricultural activities, the policies pertaining to these activities are included in all of the land uses sections. This is to ensure that policies are in place to protect drinking water should these activities ever occur on any given

land use. Further explanation around the policies contained in each land use section can be found above under “Policy Layout”.

Policies R.8.1, A.8.1 and C.8.1

These policies stipulate that all existing and future application or storage of road salt (where it is or would be a significant threat as per the MOECC Tables of Circumstances) require a Risk Management Plan. While road salt can contaminate drinking water, it also provides great benefits to human health and safety by de-icing roadways and sidewalks. The SPC therefore decided not to prohibit this future threat activity and instead chose to risk manage both existing and future threats. The RMP does not need to be established for existing threats until 3 years after the Plan comes into effect.

Pre-consultation from both the Salt Institute and the Ontario Good Roads Association identified both the “Synthesis of Best Management Practices” for municipal properties and the “Smart About Salt” program for commercial properties as existing programs that provide education and best management practice guidelines. As a result of these comments the SPC chose to include in the policy text that these programs are expected to be used to form the basis of the Risk Management Plan. They will be used as a starting point for the RMP, but are not intended to limit the flexibility of the RMP negotiated between the RMO and the persons engaging in the significant threat activity.

Minor wording changes were made to these policies as a result of pre-consultation feedback from MOECC in order to tie the policies to the legal effect of the *Act* in the event of an appeal.

Feedback was received from MOECC, prior to plan approval, indicating that it was inappropriate to include significant threat policies in the plan to address road salt application when that activity is not, and cannot be a significant threat to drinking water in the ABMV Region (the reason for which is described on Page 29 above). Based on this feedback, the SPC chose to keep the significant threat policies pertaining to road salt application, but have made a note under these policies, indicating that road salt application is not, and cannot, be a significant threat.

Policy C.8.2

Despite the human safety benefits that road salt provides, the SPC is of the opinion that the storage and application of road salt should always be properly managed in order to prevent unnecessary contamination. This policy therefore, recommends that municipalities require all existing and future commercial properties that apply or store road salt to develop a salt management plan. Salt Management Plans would be effective at identifying appropriate best management practices where removal or prohibition would be unreasonable. Since this policy only applies to commercial properties, it was only included in the “All Other Land Uses” policy section.

As described in the explanation for Policies R.8.1, A.8.1 and C.8.1, pre-consultation feedback led the SPC to include in the policy a statement that the salt management plans are expected to be based on existing programs such as “Smart About Salt”.

Policy R.8.2, A.8.2 and C.8.3

This policy is intended to complement policies R.8.1, A.8.1 and C.8.1 because it will provide education and outreach for those individuals who will require a Risk Management Plan. It has also been selected as the policy approach because it will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. It is anticipated that this policy will promote voluntary action to address significant threats.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

The policy states that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Feedback was received from MOECC, prior to plan approval, indicating that it was inappropriate to include significant threat policies in the plan to address road salt application when that activity is not, and cannot be a significant threat to drinking water in the ABMV Region (the reason for which is described on Page 29 above). Based on this feedback, the SPC chose to keep the significant threat policies pertaining to road salt application, but have made a note under these policies, indicating that road salt application is not, and cannot, be a significant threat.

Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer and Pesticide Storage and Application

Nitrogen, total phosphorus and pathogens (such as *E. coli*) are contaminants that could make their way into surface water and groundwater from the application or storage of ASM and NASM. Pathogens can cause a variety of short-term and long-term human health impacts and excessive nutrients can cause toxic algae blooms or negative human health impacts. Pathogens are one of two contaminants that were identified as extremely problematic from a human health standpoint if they got into source water (the other is chemicals, including DNAPLs).

Nitrogen and phosphorus are substances that could make their way into surface water or groundwater as a result of the application of commercial fertilizer or through spills resulting from the handling and storage of commercial fertilizer. This would pose a threat in vulnerable drinking water areas.

The Ministry of the Environment and Climate Change identified 11 chemicals of concern that could make their way into surface water and groundwater as a result of the application of pesticides to land or

through spills resulting from the handling and storage of pesticide. This would pose a threat in vulnerable drinking water areas.

While the storage and application of ASM, NASM, commercial fertilizer and pesticides are primarily agricultural activities, they may also occur on other land uses (e.g. commercial fertilizer application on an institutional property). The policies pertaining to these activities therefore, are also included in the residential and other land uses sections. This is to ensure that policies are in place to protect drinking water should these activities occur on any given land use. Further explanation around the policies contained in each land use section can be found above under “Policy Layout”.

Policies A.9.1 and C.9.1

Pathogens are one of two contaminants that were identified as extremely problematic from a human health standpoint if they got into source water (the other is chemicals, including DNAPLs). Because of this threat, the SPC felt that **ALL** (existing and future) storage of ASM and NASM should be prohibited within 100 metres of a municipal wellhead. The SPC felt that the 100 metre zone is already widely accepted as a “pathogen free” zone and the impacts on existing agricultural operations in the ABMV region would be low. The SPC also felt that since the events that occurred in Walkerton in 2000 were caused by pathogen contamination of the water supply which resulted in the development of the *Clean Water Act* and source protection planning, that prohibition in the 100 metre zone was the only reasonable measure to take.

The SPC chose to use Section 57 prohibition to prohibit these activities since this is the only tool that can be used to prohibit both existing and future threats. Minor wording changes were made to these policies as a result of public and pre-consultation feedback from MOECC in order to improve policy clarity and tie the policies to the legal effect of the *Act* in the event of an appeal.

Feedback provided through both pre- and public consultation by OMAFRA indicated that they were not supportive of the prohibition of existing ASM storage in WHPA-A, since this could create economic hardship for farmers that have made significant investments in these facilities. However, through detailed assessments and site surveys conducted during the preparation of the Assessment Reports, it was determined that there is no existing ASM storage within WHPA-A. Given that this activity does not currently exist within a WHPA-A in the ABMV Region, the Committee chose to leave these policies as they were.

Section 57 (2) of the *Clean Water Act* states that where Section 57 prohibitions have been applied to existing activities, those prohibitions shall not take effect until 180 days after the plan takes effect or such later date as set out in the source protection plan. Based on a recommendation from the MOECC during plan review, the SPC added a statement to these policies indicating their intent that the prohibitions of existing activities shall take effect 180 days after the plan takes effect, in order to provide clarity for the reader.

Policies A.9.2, A.9.3, C.9.2 and C.9.3

These policies require all existing and future application of ASM and NASM (Policies A.9.2 and C.9.2) and existing storage of ASM and NASM (Policies A.9.3 and C.9.3) in WHPA-B where the vulnerability score is 10, to develop a Risk Management Plan (RMP). It should be noted that these threats located in WHPA-A are dealt with through other policies.

Pathogens are one of two contaminants that were identified as extremely problematic from a human health standpoint if they got into source water (the other is chemicals, including DNAPLs). With the potential consequences of contamination being severe, the SPC felt that a RMP would be necessary to ensure effective risk mitigation measures were undertaken. The RMP does not need to be established until 3 years after the Plan comes into effect. Prior to this time, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices.

With the potential consequences of contamination being severe, the SPC chose to take a more prohibitive approach to the storage and application of ASM and NASM in WHPA-A (Policies A.9.1 and C.9.1). While they determined that these activities (both existing and future) should be prohibited within 100 metres of a wellhead, they felt that a Risk Management Plan was more appropriate for both existing and future application (Policies A.9.2 and C.9.2), but only for existing storage (Policies A.9.3 and C.9.3) in WHPA-B where the vulnerability score is 10. Future storage of ASM and NASM is prohibited in WHPA-B through policies A.9.4 and C.9.4.

Originally, the Committee had intended to prohibit the future application of both ASM and NASM wherever the vulnerability score is 10 (as this was the approach taken with most other significant threat activities). However, as a result of feedback received through public consultation from both OMAFRA and Huron and Perth County's Federations of Agriculture, the SPC reconsidered this approach. The Committee determined that prohibiting these future activities could limit the ability of farmers to change practices in the future, hinder the sale of a property, and/or affect the farm business economically. The Committee therefore chose to risk manage both existing and future application activities.

Although the committee discussed at length, the effectiveness of the existing nutrient management instruments, they determined that a Risk Management Plan was the best way to ensure that these threats are managed. This was based on the fact that not all farms require Nutrient Management Strategies or Plans, and for the farms that do, the Strategies and Plans do not always require approval.

Comments received through pre-consultation from both OMAFRA and Wellington County requested that prescribed instruments be used for those farms that already have a NASM Plan, Nutrient Management Strategy or Nutrient Management Plan in place. The SPC considered these comments, but chose to continue to require a RMP based on the reasons listed above. However, the SPC recognizes that these instruments provide necessary and effective environmental benefits through the nutrient

management standards they require. Therefore, the Committee added to the policy text that Nutrient Management Strategies, Nutrient Management Plans and NASM Plans are expected to form the basis of the RMP. They will be used as a starting point for the RMP, but are not intended to limit the flexibility of the RMP negotiated between the RMO and the persons engaging in the significant threat activity. The RMP would take into account the good work already being done by farmers on their properties.

The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Minor wording changes were made to these policies as a result of public and pre-consultation feedback from MOECC in order to provide additional clarity and tie the policies to the legal effect of the Act in the event of an appeal.

Policies A.9.4, A.9.7, C.9.4 and C.9.7

The intent of policies A.9.4 and C.9.4 is to prohibit future storage of ASM and NASM (where they are a significant threat as per the MOECC Tables of Circumstances) from establishing within Wellhead Protection Area B where the vulnerability score is 10. It should be noted that other policies address these threats in WHPA-A. Likewise, policies A.9.7 and C.9.7 prohibit future storage of commercial fertilizer and pesticide wherever the vulnerability score is 10.

This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit these threats was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities.

Using Section 57 Prohibition to prohibit future threats instead would take immediate effect whenever the Plan takes effect. Additionally, using Section 57 Prohibition would provide clarity about which activities are prohibited as they would be directly stated in the policies and are not subject to debate. Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using Section 57 Prohibition under the *Clean Water Act* to prohibit most future threats from establishing, including the storage of ASM, NASM, commercial fertilizer and pesticide.

Feedback provided through both pre- and public consultation by OMAFRA indicated that they were not supportive of any prohibitions outside of WHPA-A, since these activities can be managed using prescribed instruments under the *Nutrient Management Act* or through Risk Management Plans. The SPC's decision to prohibit future storage of ASM, NASM, commercial fertilizer and pesticides is based on the very limited amount of farm land located in such areas within the ABMV Region. The amount of property located within these highly sensitive areas is small enough that any future storage of ASM, NASM commercial fertilizer or pesticides can easily be located outside of it. The SPC felt that unlike, future application threats, where a prohibition could limit agricultural practices, the prohibition of future ASM, NASM, commercial fertilizer and pesticide storage facilities within these areas would have very little impact. Based on this, the SPC chose not to change these policies as a result of the feedback received.

The Committee's rationale behind their decision to manage certain agricultural threat activities through Risk Management Plans rather than prescribed instruments can be found under the discussion above for Policies A.9.2, A.9.3, C.9.2 and C.9.3.

Policies A.9.5, A.9.6, C.9.5 and C.9.6

These policies require all existing and future application (Policies A.9.5 and C.9.5) and existing storage (Policies A.9.6 and C.9.6) of commercial fertilizer and pesticides (where they are a significant threat as per the MOECC Tables of Circumstances) to establish risk management plans to manage the potential threat to drinking water.

The RMP does not need to be established until 3 years after the Plan comes into effect. The SPC chose this timeframe since within a year of the plan taking effect, an education and outreach program will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

Originally, the Committee had intended to prohibit the future application of both commercial fertilizer and pesticides. However, as a result of feedback received through public consultation from both OMAFRA and Huron and Perth County's Federations of Agriculture, the SPC reconsidered this approach. The Committee determined that prohibiting these future activities could limit the ability of farmers to change practices in the future, hinder the sale of a property and/or affect the farm business economically. The Committee therefore chose to risk manage both existing and future application activities.

Although the committee discussed at length, the effectiveness of the existing nutrient management instruments, they determined that a Risk Management Plan was the best way to ensure that these threats are managed. This was based on the fact that not all farms require Nutrient Management Strategies or Plans, and for the farms that do, the Strategies and Plans do not always require approval. Additionally, the *Nutrient Management Act* only sets out standards for application of commercial

fertilizer, and does not include standards for the application and storage of pesticides, or the storage of commercial fertilizer.

Comments received through pre-consultation and public consultation from both OMAFRA and Wellington County requested that prescribed instruments be used for those farms that already have a Nutrient Management Strategy or Plan in place. The SPC considered these comments, but chose to continue to require a RMP based on the reasons listed above. However, the SPC recognizes that these instruments provide necessary and effective environmental benefits through the nutrient management standards they require. Therefore, the Committee added to the policy text that Nutrient Management Strategies and Plans are expected to form the basis of the RMP. They will be used as a starting point for the RMP, but are not intended to limit the flexibility of the RMP negotiated between the RMO and the persons engaging in the significant threat activity. The RMP will take into account the good work already being done by farmers on their properties.

Policies R.9.1, A.9.8 and C.9.8

Policies A.9.8 and C.9.8 are intended to complement the other policies that have been created to address all storage and application of ASM, NASM, commercial fertilizer, and pesticide threats. It has also been selected as the policy approach because this program will inform landowners that they are in a wellhead protection area, what stewardship funds (if any) are available and best management practices that should be implemented. The information provided through education and outreach will also provide advice to those residents who will require a risk management plan. It is anticipated that these policies will promote voluntary action to address significant threats. Policy R.9.1, while identical to policies A.9.8 and C.9.8 is the only policy addressing these threats in the residential land use section of the plan. The Committee felt that the likelihood of these activities occurring under circumstances which would make it a significant threat on residential properties would be very low. Given the low likelihood of these activities occurring on residential properties, the SPC felt that education and outreach would be sufficient to minimize the risks to sources of drinking water.

The policies specify that municipalities should work in collaboration with the lead Source Protection Authority who should develop the program. The lead SPA was chosen due to their expertise and knowledge of source protection, as well as to provide consistency in education programs across the region, particularly where delivery will be in municipalities that fall into both SPA's. However, it is expected that the work be shared among both SPA's, particularly with respect to delivery.

The policies state that education and outreach shall be developed and delivered within one year of the plan taking effect. The intention of this timeframe is to equip landowners with ample knowledge of best management practices intended to manage the specific risks. The timing has been intentionally staggered so that education precedes Risk Management Plans where they are required. The principle is to educate thoroughly prior to requiring action.

For details on comments made during pre-consultation on all education policies, please refer to the previous discussion under "Policies R.1.7, A.1.7 and C.1.7" beginning on page 11.

Policies A.9.9 and C.9.9

While the MOECC Tables of Circumstances identify certain quantities and application areas as significant threats, the SPC considers all quantities and application areas of pesticides to be a potential risk to drinking water. These policies were therefore created as a recommendation that municipalities expand the mandatory education and outreach policies to all landowners who store or apply pesticides where it is a moderate or low drinking water threat. This information would increase awareness of the potential threat to drinking water.

Snow Storage and Air-Craft De-Icing

Runoff from snow storage areas (snow piles and snow dumps) can contain salt, oil, grease, heavy metals, litter and airborne pollutants which are all contaminants that can make their way into surface water and groundwater.

Aircraft de-icing materials contain dioxane-1,4 and ethylene glycol which are contaminants. If aircraft de-icing materials get into runoff, they can make their way into groundwater and surface water which would pose a threat in vulnerable drinking water areas.

While snow storage is not typically considered a residential or agricultural activity, the policies pertaining to this activity are included in all of the land uses sections. This is to ensure that policies are in place to protect drinking water should this activity ever occur on any given land use. However, the Committee felt certain that the circumstances under which aircraft de-icing is a significant threat would never occur on a residential or agricultural property and therefore, only included the policies pertaining to that activity in the “All Other Land Uses” section. Further explanation around the policies contained in each land use section can be found above under “Policy Layout”.

Policies R.10.1, A.10.1 and C.10.1

The intent of these policies is to prohibit future snow storage (where it is a significant threat as per the MOECC Tables of Circumstances) from establishing within Wellhead Protection Areas where the vulnerability score is 10. The SPC is of the opinion that any future storage of snow as described in these policies should be located outside of wellhead protection areas where the vulnerability score is 10.

This is the approach the SPC has chosen to deal with most future threat activities. If the threat does not currently exist, the Committee feels that it should be prevented from ever establishing and creating new risk. Given that the size and scope of areas in the ABMV region with a vulnerability score of 10 are very limited, the SPC believes that these prohibitions will have little impact on future growth and development.

The tool by which the SPC originally chose to prohibit this threat was land use planning. However, pre-consultation feedback suggested that this approach presents challenges. Specifically, land use planning documents regulate land uses, while source protection plan policies regulate specific activities. Concerns were therefore raised over the ability for municipalities to adequately amend planning documents to conform to policy requirements. Additionally official plans and zoning by-laws are open to appeal which can be time-consuming and costly for municipalities.

Using Section 57 Prohibition to prohibit future threats instead would take immediate effect whenever the Plan takes effect. Additionally, using Section 57 Prohibition would provide clarity about which activities are prohibited as they would be directly stated in the policies and are not subject to debate. Given the varying levels of capacity, the potential for expensive appeals and the concern that the proposed use of the planning tools may not be defensible, the SPC decided to switch to using Section 57 Prohibition under the *Clean Water Act* to prohibit most future threats from establishing, including future snow storage.

Policies R.10.2, A.10.2 and C.10.2

These policies require all existing future snow storage (where it is a significant threat as per the MOECC Tables of Circumstances within wellhead protection areas where the vulnerability score is 10, to develop a Risk Management Plan.

While the Committee is fairly confident that no significant snow storage threats currently exist where the score is 10, the MOECC encouraged the SPC (through public and pre-consultation) to include a policy addressing this activity as an existing threat due to the seasonal nature of snow storage. The Risk Management Plan is to be established within three years of the plan taking effect.

Policy C.10.3

Prohibition through land use planning is an ideal way of addressing large scale future activities that would create an unnecessary risk. However, municipal land use planning cannot be used to address national airports, since they are federally regulated. This policy was therefore created as a recommendation to Transport Canada that if this type of airport is established within a wellhead protection area, that the appropriate standards are in place to manage threats to drinking water. Given that national airports are nationally regulated, the Committee feels confident that this recommendation to Transport Canada will ensure that the appropriate standards are put in place to manage any potential threat to drinking water despite the fact that the policy is non-legally binding.

The Committee was certain that aircraft de-icing does not currently occur in the area where this threat could be significant, and feel it is extremely unlikely that this activity would be engaged in prior to the source protection plans taking effect. The Committee also feels that the likelihood of this activity ever establishing within the Region is extremely low. Therefore the Committee elected to write a policy addressing this activity as a future threat only, and did not write an existing threat policy.

Other Permissible Policies**Policies O.11.1 and O.11.2**

The SPC is aware of a number of areas within the SPA where residents are concerned about impairment of drinking water quality within vulnerable areas where moderate and low threats exist. The intent of these policies is to provide education and outreach to those landowners that reside within Highly Vulnerable Aquifers (O.11.1) and Significant Groundwater Recharge Areas (O.11.2) to inform them about the sensitivity of the area and raise awareness about drinking water threats.

Policy O.11.3

The ABMV SPC felt that municipal emergency plans and spills containment plans should address potential impacts to sources of drinking water. While some plans already address this, many do not. This policy therefore recommends that municipalities review and update their emergency plans if required. The Committee added that the review of emergency and spills containment plans should be conducted during regular updates to these documents as a result of feedback provided through public consultation.

Policy O.11.4

Since it is difficult to predict local impacts of climate change, this policy was intended as a recommendation that conservation authorities should continue monitoring climate change and its potential impacts on sources of drinking water, and report this information to the SPC. The policy was amended slightly as a result of public consultation to clarify that this information should be provided annually.

Policy O.11.5

The intent of this policy is to encourage the Ministry of the Environment to continue to provide stewardship funding for those landowners engaging in significant threat activities in order to financially assist them in managing those threats. The SPC received a great amount of support for this policy through both pre-consultation and public consultation. However, feedback provided from MOECC through both public and pre-consultation identified that this type of policy was out of scope of what could be included in a policy. However, the SPC felt strongly that stewardship funds continue to be provided through implementation for those landowners that are impacted by policies. Given the level of support they received for this policy, the SPC chose to leave the policy as it was originally worded.

Policy O.11.6

Many toxic chemicals are transported along provincial highways and county roads. Drivers transporting such potentially dangerous chemicals are unfamiliar with local conditions. This policy was intended to recommend that the Ministry of Transportation and upper and lower tier municipalities post signs along provincial highways and county roads, to make drivers aware that they are entering a wellhead protection area. It is also an important tool for local spills management. This policy underwent several re-writes as feedback was provided from the Ministry of Transportation through pre-consultation. The current wording was provided by MTO so that a consistent policy approach was taken across the province.

Administrative, Effective Dates, Monitoring and Transition Policies**Policy P.12.1**

The intent of this policy is to require that all applications for development in wellhead protection areas where *Clean Water Act* tools apply are flagged for review by the Risk Management Official. The restricted land use tool (s. 59 of the *CWA*) is a beneficial tool for municipalities to assist with implementation of the other tools contained in Part IV of the *CWA* (s. 57 prohibition and s. 58 risk

management plans). This tool ties the source water protection policies to the planning-approvals process through applicable law (Ontario Building Code). This allows municipalities to screen applications at the front end of the process to determine if they require review by the Risk Management Official. All land uses were designated for this tool to ensure that all potential drinking water threats are caught for all land-use types. The policy was revised in 2018 to provide more flexibility in the type of applications that are reviewed by Risk Management Officials.

Policy P.12.2

This policy sets out a timeframe of three years from the date that the plan takes effect, for a Section 58 Risk Management Plan to be established. The SPC chose this timeframe since within a year of the plan taking effect, education and outreach programs will be developed to raise landowner awareness about source protection and promote best management practices. This will give landowners time to become informed and establish risk management measures prior to a risk management plan being required.

In 2018 this policy was revised to extend the timeline for RMP completion to five years. Risk Management Officials requested a longer timeline, and the five-year timeline is consistent with policies in other source protection regions in the area.

Policy P.12.3

This policy stipulates that Section 59 Restricted Land Use will take effect on the same day that the plan takes effect.

Policy P.12.4

This policy sets out a timeline of three years for existing prescribed instrument conformity. Originally the SPC had indicated that the MOECC should review and amend all existing prescribed instruments within one year of the plan taking effect. However, MOECC requested through pre-consultation and public consultation that this time period be extended to three years or another date determined by the Director. The SPC felt that the three year timeframe coincided with the timeframe provided to establish risk management plans where required, and therefore agreed to change the timeframe from one year to three years. They did not however, include the provision “or another date to be determined by the Director”. The SPC felt that this left the conformity date too open, and provided too much flexibility, particularly when no other policies in the plan provide this type of flexibility.

Policy P.12.5

This policy sets out a five-year timeframe for municipalities to amend land use planning documents. The Committee originally set out a two-year timeframe for upper tier municipalities, and a three-year timeframe for lower municipalities, to encourage municipalities to take action as soon as possible, while leaving a reasonable amount of time to undertake amendments. However, feedback received through both public and pre-consultation recommended that the timeline correspond with the five-year review cycle that is stipulated under the Planning Act. The SPC decided to make this change since planning decisions must conform immediately and the five-year timeframe provides municipalities with additional flexibility to undertake the amendments to land use planning documents.

Policy P.12.6

This policy sets out a general effective date for policies that do not explicitly state when they take effect. The general effective date is immediately once the plan takes effect.

Policy P.12.7

For each significant threat policy, the *Clean Water Act (CWA)* requires source protection plans to include a corresponding monitoring policy. The monitoring policies will help the Source Protection Authority to create annual progress reports relating to policy implementation. This policy requires municipalities to provide the SPA with a notice of all proposed amendments to land use planning documents whenever amendments are being made as a result of source protection plan policies. Given that municipalities are required to circulate notices whenever amendments to planning documents are proposed, the SPC felt it was reasonable that the notice be circulated to the SPA as well.

Policy P.12.8

For each significant threat policy, the *Clean Water Act (CWA)* requires source protection plans to include a corresponding monitoring policy. The monitoring policies will help the Source Protection Authority to create annual progress reports relating to policy implementation. This policy requires the Ministry of the Environment and Climate Change to provide the SPA with an annual summary of the action it has taken to implement prescribed instrument policies.

Policy P.12.9

For each significant threat policy, the *Clean Water Act (CWA)* requires source protection plans to include a corresponding monitoring policy. The monitoring policies will help the Source Protection Authority to create annual progress reports relating to policy implementation. This policy requires Conservation Authorities or Source Protection Authorities to annually submit a report summarizing their actions for the year to implement source protection policies. The policy indicates that a form will be established for the report. The SPC feels that having a standardized form that most implementing bodies can use for reporting will streamline the reporting process, and anticipate that the form will be developed by the SPA.

Policy P.12.10

For each significant threat policy, the *Clean Water Act (CWA)* requires source protection plans to include a corresponding monitoring policy. The monitoring policies will help the Source Protection Authority to create annual progress reports relating to policy implementation. This policy requires municipalities to annually submit a report summarizing their actions for the year to implement source protection policies (including reporting from Risk Management Officials). The policy indicates that a form will be established for the report. The SPC feels that having a standardized form that most implementing bodies can use for reporting will streamline the reporting process, and anticipate that the form will be developed by the SPA.

Policy P.12.11

There is no requirement for optional content policies to have associated monitoring policies. However, the Source Protection Committee chose to add this policy which recommends that provincial ministries, municipalities, conservation authorities, and source protection authorities submit an annual progress report summarizing their actions for the year to implement optional content policies where they have been named as the implementing body. The policy indicates that a form will be established for the report. The SPC feels that having a standardized form that most implementing bodies can use for reporting will streamline the reporting process, and anticipate that the form will be developed by the SPA.

Policy P.12.12

For each significant threat policy, the *Clean Water Act* (CWA) requires source protection plans to include a corresponding monitoring policy. The monitoring policies will help the Source Protection Authority to create annual progress reports relating to policy implementation. This policy recommends that the SPA communicate with relevant airport authorities or operators if any national airports are proposed within wellhead protection areas, and if any are proposed, to obtain updates on progress related to the recommendations set out in Policy C.10.3 to manage runoff from aircraft de-icing.

Policy P.12.13

The intent of this policy is to capture any threat activities that may not currently be established but are pending some kind of approval, whether it is for a building permit, an environmental compliance approval, or an approval under the *Planning Act*. Applicants that are waiting for such an approval may have already invested significant time and money into the development of that application, and the SPC felt that in such cases, the application should be allowed to proceed as an existing threat activity.

Optional Policies Excluded From the Plan**Transport Pathways**

The *Clean Water Act* regulations define transport pathways as “a condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system.” In essence, transport pathways provide a channel to an aquifer that bypasses the natural protection of the overburden layer resulting in greater potential risk of contamination from nearby threats.

Although, not identified as one of the 21 prescribed drinking water threats, Section 27 of O. Reg. 287/07 allows Source Protection Committees to develop optional policies that are intended to ensure that the transport pathway ceases to endanger drinking water supplies. These types of policies may establish stewardship programs, specify and promote best management practices, establish pilot projects, govern research, or specify actions. Given that only these non-regulatory tools are available for transport pathway policies, and the fact that they would be non-legally binding, the ABMV Source Protection Committee chose not to write a transport pathway policy.

The Committee received pre-consultation and public consultation feedback requesting that a policy be included to address transport pathways. The SPC considered these requests but felt that there were already existing education and incentive programs around the region to promote decommissioning of abandoned or old transport pathways. Based on these reasons, and the fact that ~~may any~~ policy would be non-legally binding, the Committee felt that any policy they could write would result in a duplication of effort due to these existing programs.

Additionally, through work undertaken for the completion of the Assessment Reports, transport pathways were identified within Wellhead Protection Areas. The vulnerability scores around these pathways were elevated (see methodology for transport pathway identification and score elevations in Chapter 4 of the Assessment Reports) and new threats were identified as a result. The Committee is satisfied that other plan policies will manage any potential threats around transport pathways within the most highly vulnerable areas of the wellhead protection areas.