

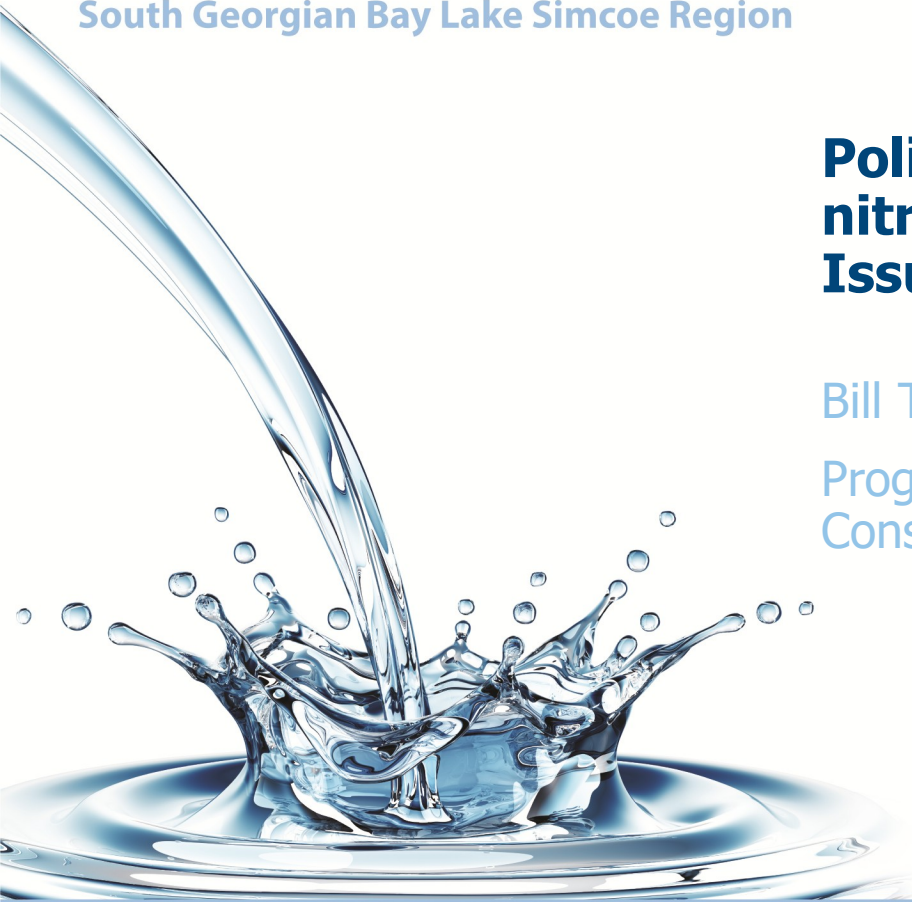
Source Water Protection

South Georgian Bay Lake Simcoe Region

Policy options for addressing nitrate activities in the Cannington Issue Contributing Area

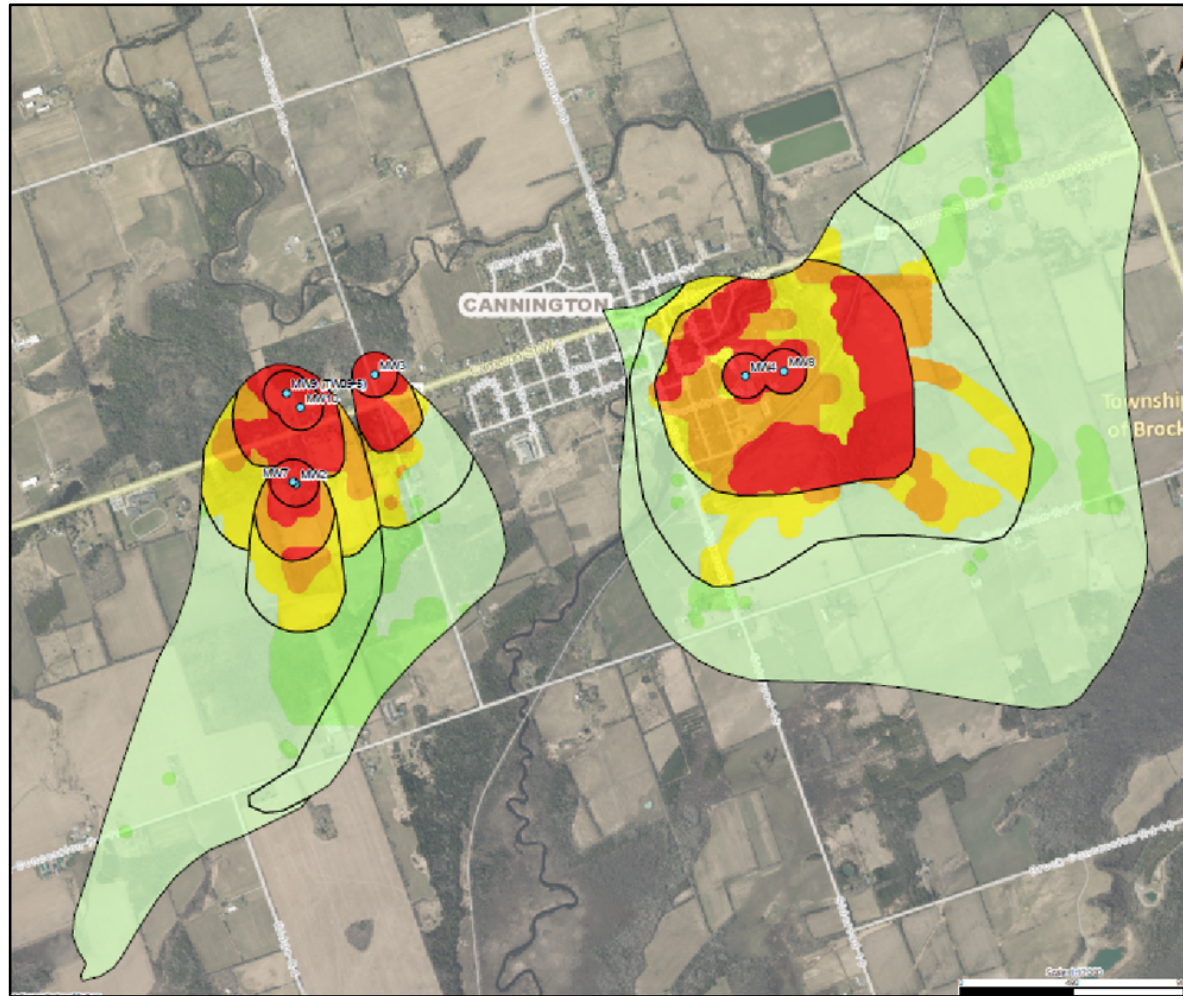
Bill Thompson

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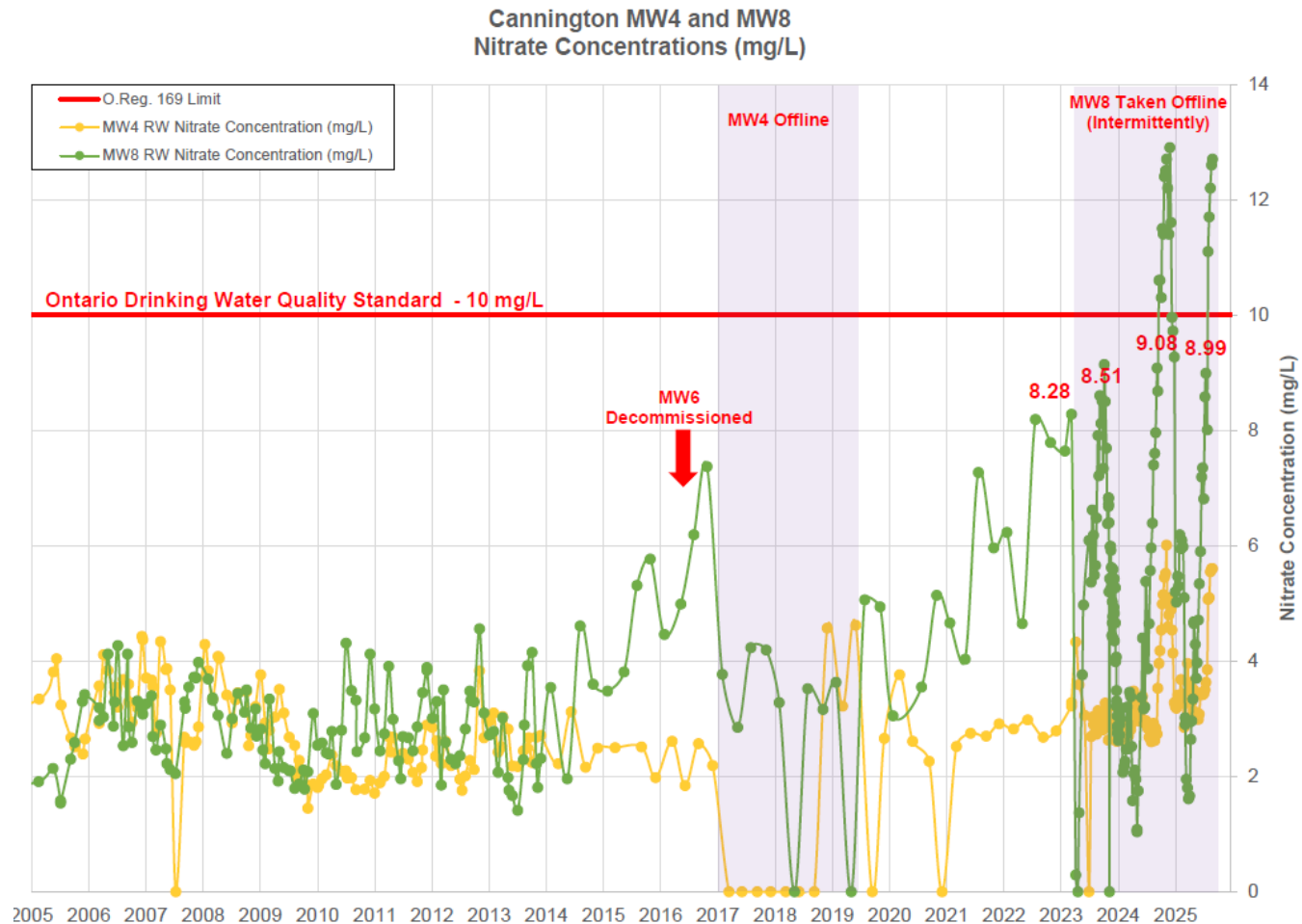
Water
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Protect
Yours.

Existing policy application



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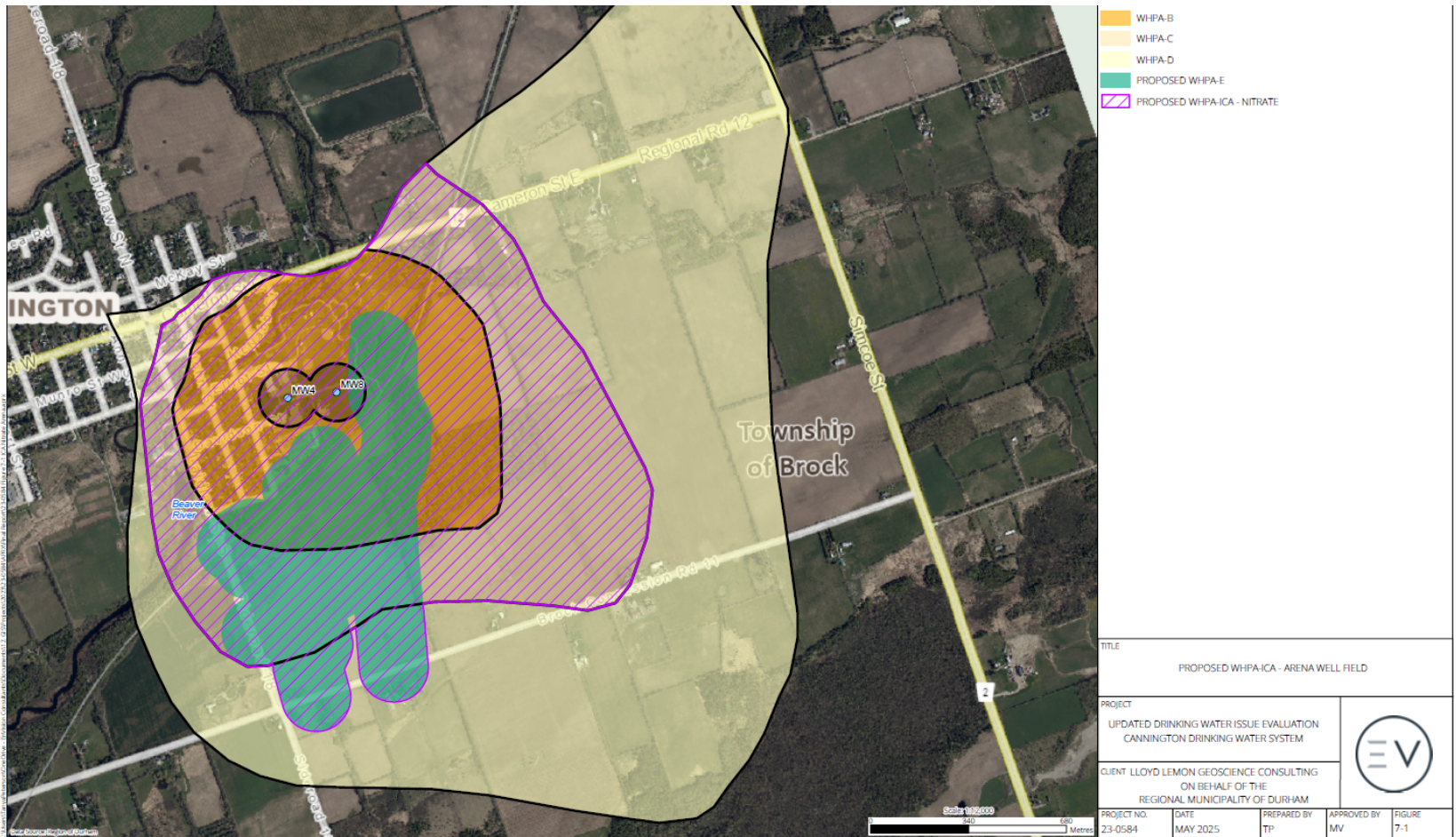
Nitrate trends: arena well field



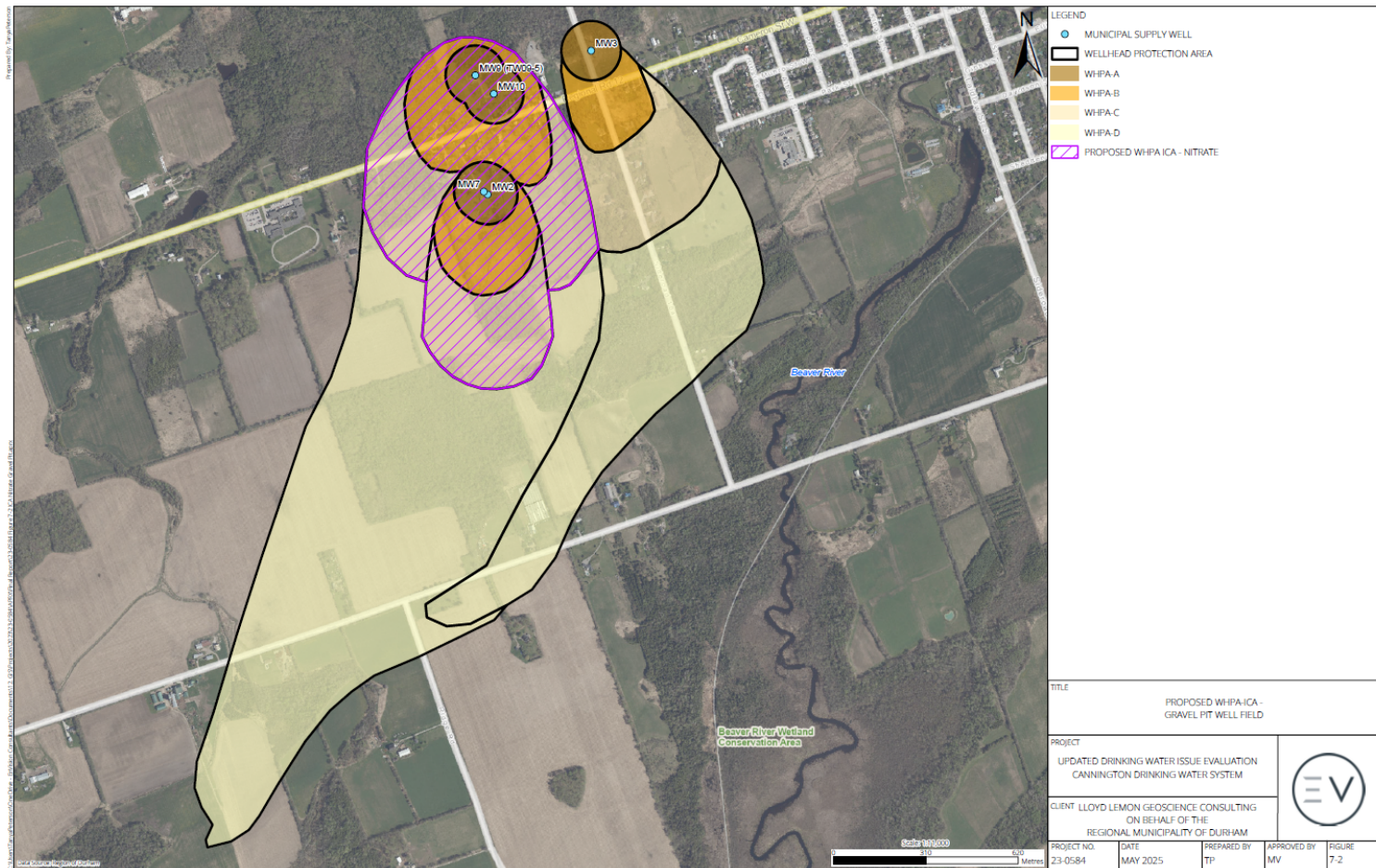
What is an 'Issue'?

- A drinking water Issue exists if:
 - A contaminant in a well exceeds the Ontario Drinking Water Quality Standard; or,
 - It is increasing such that it is projected to exceed the Standard
- If an Issue is identified
 - An Issue Contributing Area (ICA) needs to be identified
 - All low and moderate threats are to be addressed through policy

Issue Contributing Area – arena well field



Issue Contributing Area – gravel pit well field



Threat count

- Currently 57 significant drinking water threats (SDWT) identified in Cannington (on 49 properties)
- May increase to 953 (on 240 properties)
 - Septic systems
 - Fertilizer application
 - Agricultural source material storage or application
 - Livestock

Three policy options

1. Retain existing policies
2. Apply policies that apply within the Lafontaine / Georgian Sands nitrate ICA
3. Create new policies specific to the Cannington ICA

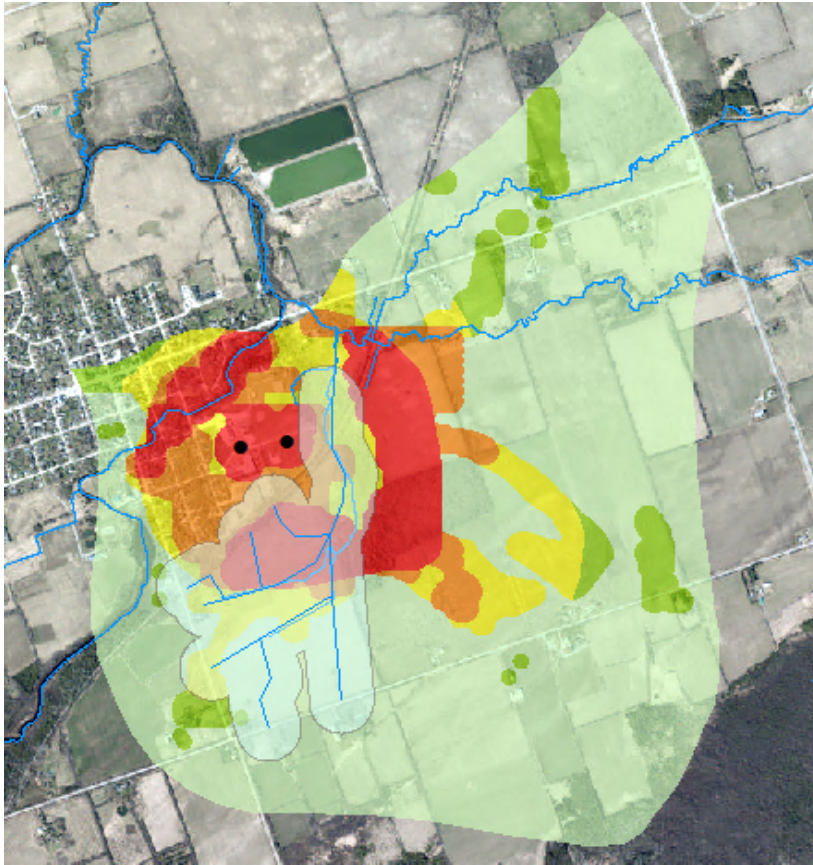
Policy comparison (existing threats)

Activity	Standard SDWT policies	Additional policies in the Lafontaine ICA
Septic systems	Inspections necessary	Same
Ag source material application	Prohibited in WHPA-A Managed elsewhere	Prohibited where vulnerability score is 10 Managed elsewhere
Ag source material storage	Managed	Prohibited where vulnerability score is 10 Managed elsewhere
Fertilizer application	Managed	Prohibited where vulnerability score is 10 Managed elsewhere
Fertilizer storage	Managed	Prohibited where vulnerability score is 10 Managed elsewhere

Policy comparison

	Standard SDWT policies	Additional policies in the Lafontaine ICA
Advantages	<ul style="list-style-type: none">• Less workload for risk management official• Fewer restrictions on local residents	<ul style="list-style-type: none">• More effective protection of vulnerable aquifer• Evidently working at Latontaine• Equitable treatment across municipalities
Disadvantages		<ul style="list-style-type: none">• Did not consider implications of a WHPA-E

Wellhead Protection Area E



- Identifies areas where surface water is directly affecting groundwater
- Represents a shortened pathway where contaminant could enter well
- Additional precautions necessary

Policy recommendation

1. Retain existing policies
 - Not recommended
2. Apply policies that apply within the Lafontaine / Georgian Sands nitrate ICA
 - Recommended, with the addition of item below
3. Create new policies specific to the Cannington ICA
 - Addition of treating the WHPA-E the same as areas with a vulnerability score of 10

Recommended policies – commercial fertilizer

Policy #	E/F	Policy
FERT(ICA)-1	E/F	Unless addressed through a PI, the application, handling and storage of fertilizer requires a RMP, <u>if located outside the WHPA-E</u> in an area with VS<10
FERT(ICA)-2	E/F	Unless addressed through a PI, the application, handling and storage of fertilizer is prohibited <u>if located in the WHPA-E</u> or in an area with VS=10
FERT(ICA)-3	E/F	Terms and conditions shall be applied to PIs for application, handling, storage of fertilizer, <u>if located outside the WHPA-E</u> in an area with VS<10
FERT(ICA)-4	E/F	PIs shall prohibit the application, handling and storage of fertilizer <u>in the WHPA-E</u> or in an area with VS=10

Recommended policies – agricultural source material

Policy #	E/F	Policy
ASM(ICA)-1	E/F	Unless addressed through a PI, the application and storage of agricultural source material requires a RMP, <u>if located outside the WHPA-E</u> in an area with VS<10
ASM(ICA)-2	E/F	Unless addressed through a PI, the application and storage of agricultural source material is prohibited <u>if located in the WHPA-E</u> or in an area with VS=10
ASM(ICA)-3	E/F	Terms and conditions shall be applied to PIs for the application and storage of agricultural source material, <u>if located outside the WHPA-E</u> in an area with VS<10
ASM(ICA)-4	E/F	PIs shall prohibit the application and storage of agricultural source material <u>in the WHPA-E</u> or in an area with VS=10

Thank you

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