

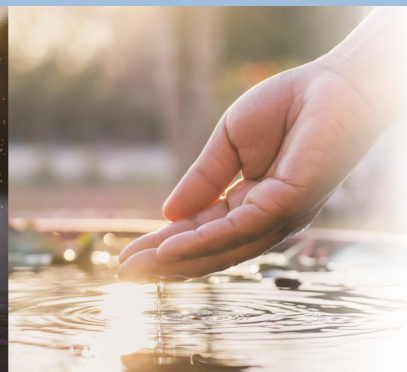
Source Water Protection

South Georgian Bay Lake Simcoe Region

Status of Drinking Water Issues

Bill Thompson, Lake Simcoe Region Conservation Authority

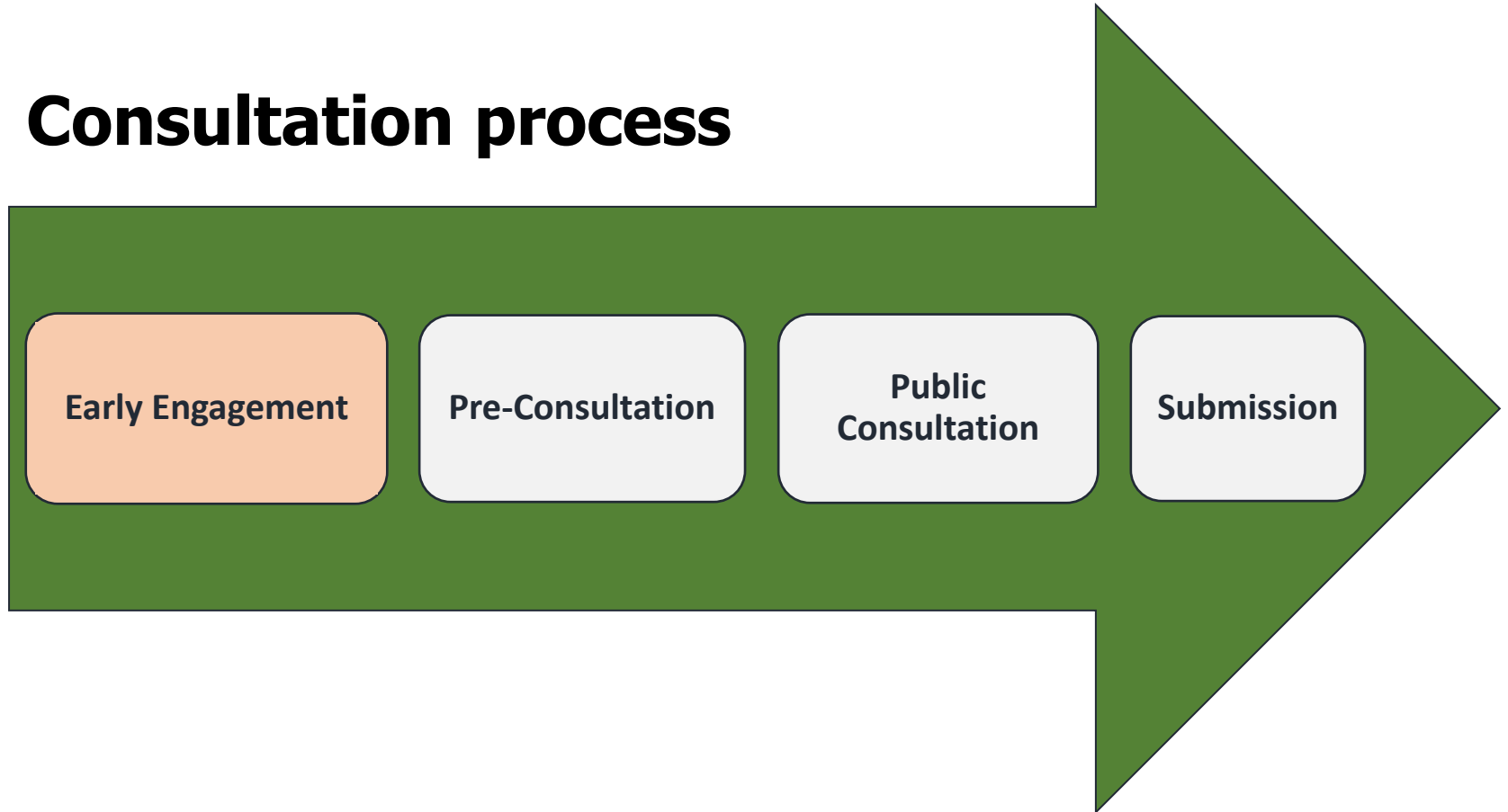
Melissa Carruthers, Severn Sound Environmental Agency



Water
is life.
Protect
Yours.

Plan review and amendments

Consultation process



MECP feedback was of 5 types

1. Typographic
2. Mapping
3. Threats enumeration
- 4. Status of Issues**
5. Policy conformity



What is an Issue

A drinking water 'Issue' should be declared, if the Committee becomes aware of:

- A contaminant at a level that exceeds the Ontario Drinking Water Quality Standards; or,
- A contaminant whose concentration is increasing, such that it is expected to exceed the Standard

What to do when an Issue is declared

1. Map 'Issue contributing area'

- The area in which activities are believed to be contributing to the contamination

2. Implement policies

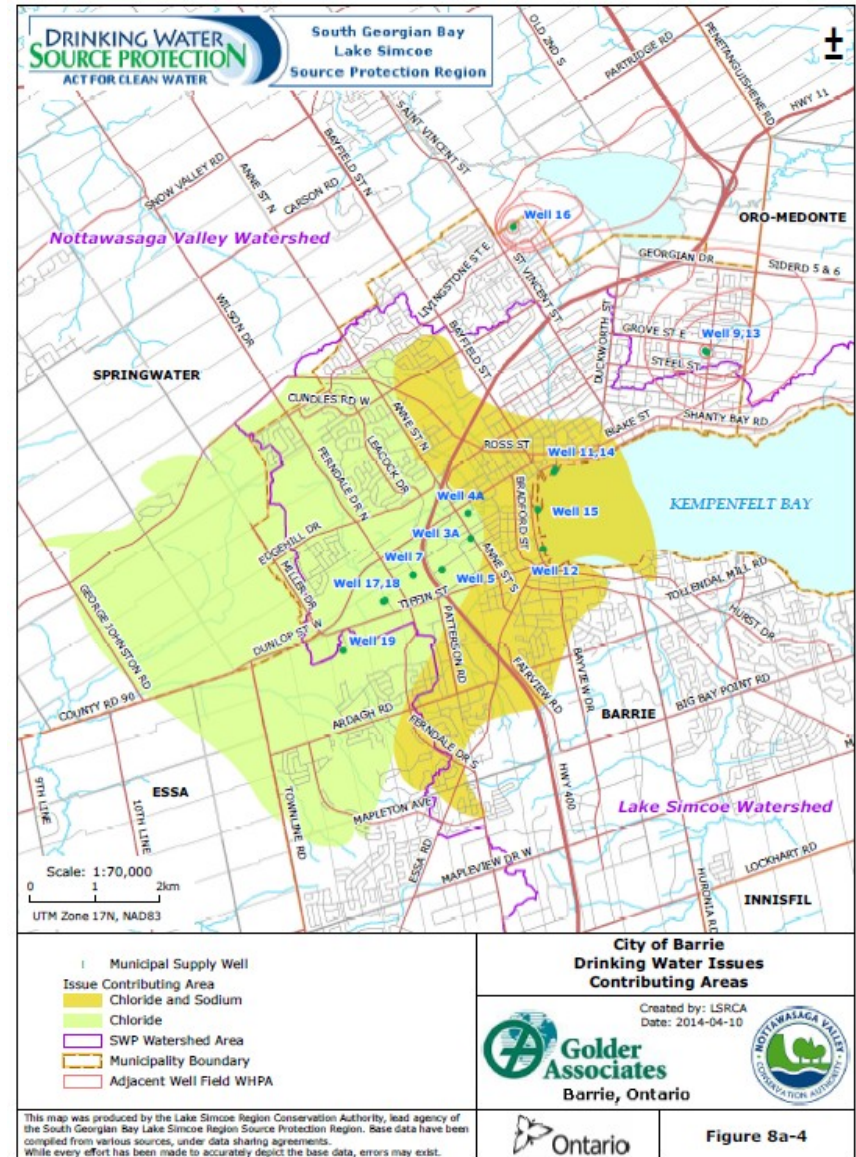
- All threat activities which may contribute to further impairment are “promoted” to Significant
- ICA-specific policies may be developed

Water quality issues in our Source Protection Region

- Barrie: sodium and chloride
- Cannington (Durham Region): Trichloroethylene
- Orillia: Trichloroethylene and Perchloroethylene
- Penetanguishene: Trichloroethylene
- Coldwater (Severn): Trichloroethylene
- Georgian Sands / Lafontaine (Tiny): nitrate

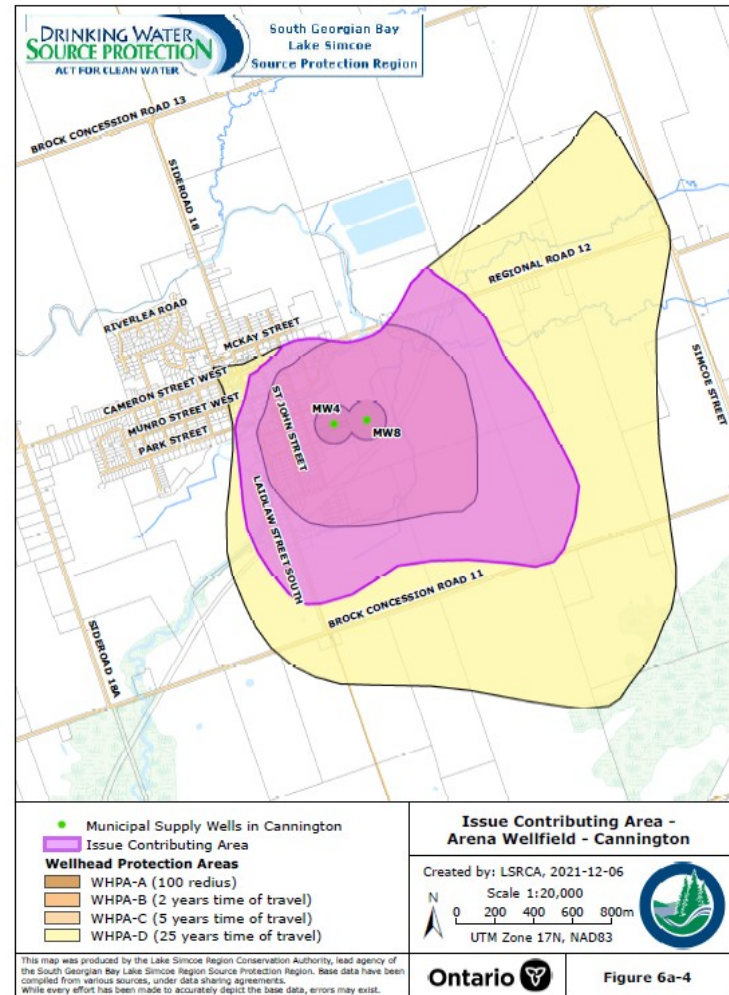
Barrie

- Sodium (wells 11, 12, 14)
- Chloride (wells 3A, 11, 12, 14)
- Trend continues to increase
- Threats in the WHPA-A (wellhead protection area) have been addressed
- City has requested extension of policy. Endorsed by Committee and included in draft amendment

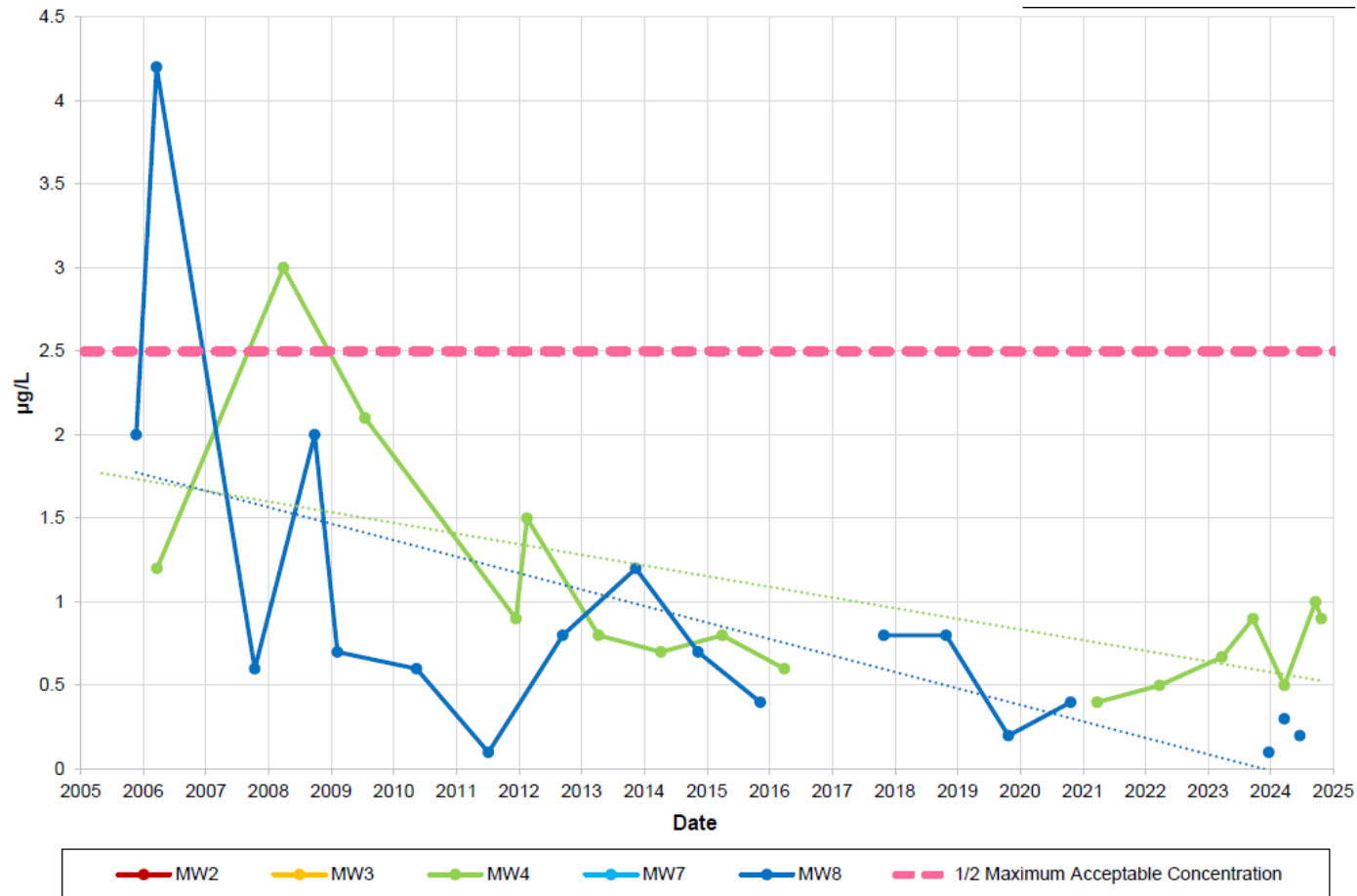


Cannington (Durham Region)

- Trichloroethylene (TCE) (wells MW4, MW8)
- Concentrations have been declining

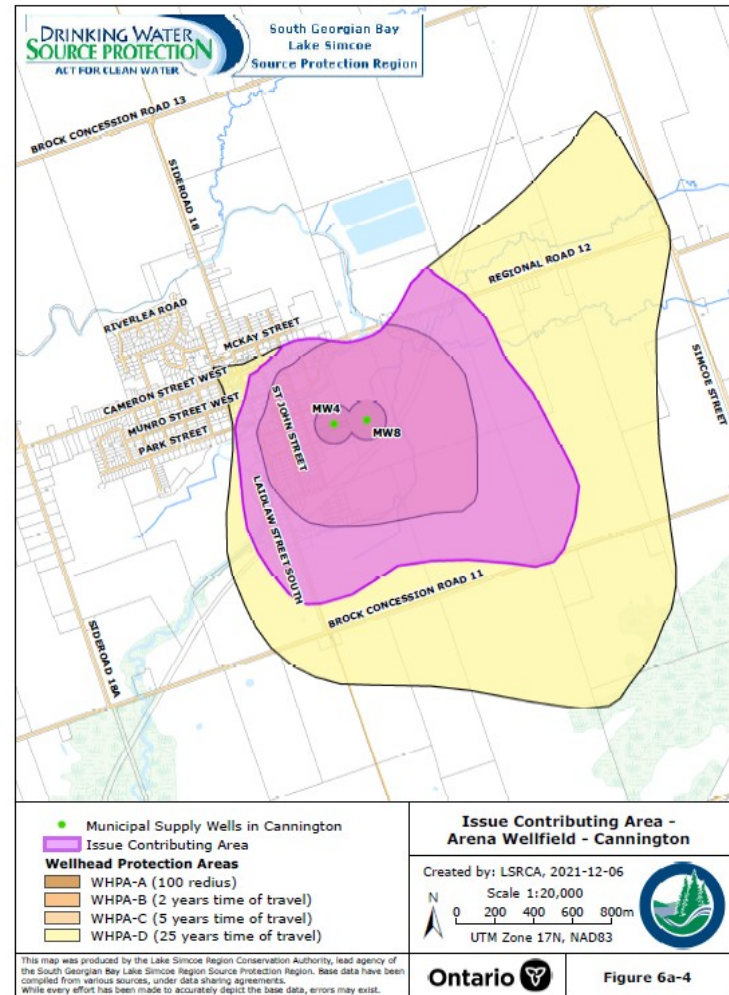


Cannington (Durham Region)



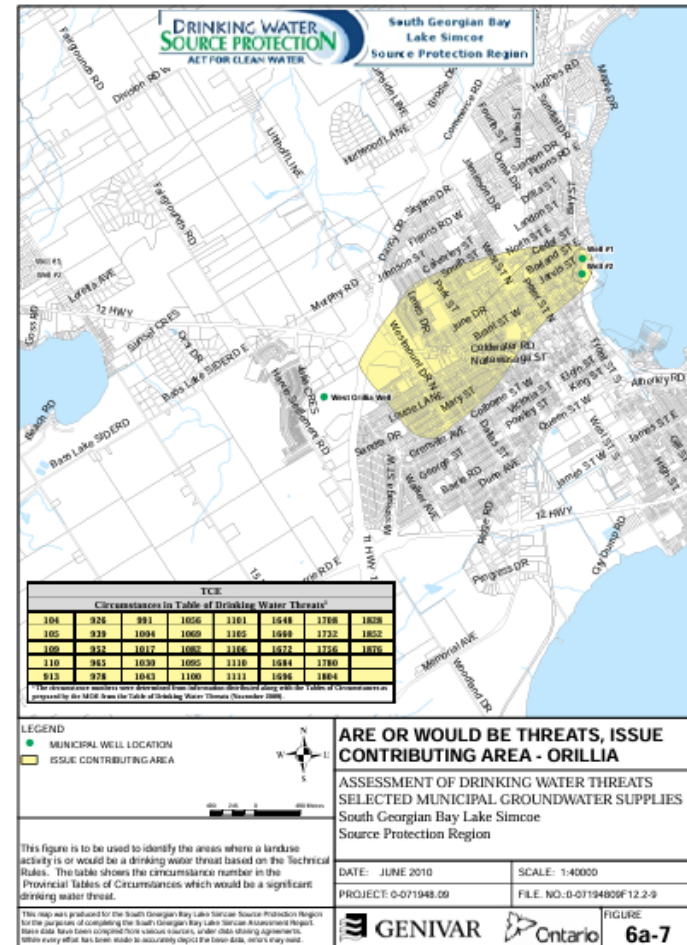
Cannington (Durham Region)

- Trichloroethylene (wells MW4, MW8)
- Concentrations have been declining
- But ... pumping rate has decreased as well
- Expect concentrations may increase when pumping increases again
- Emerging Issue with nitrate too



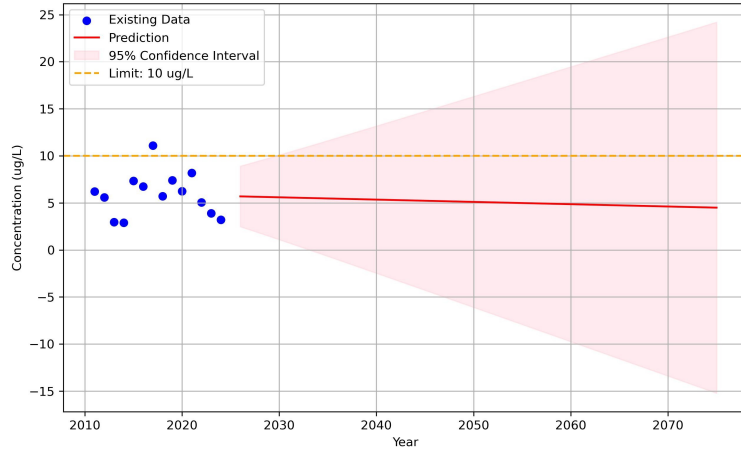
Orillia

- Trichloroethylene and perchloroethylene identified as issues in Wells 1 and 2
- Concentrations below Drinking Water Standard

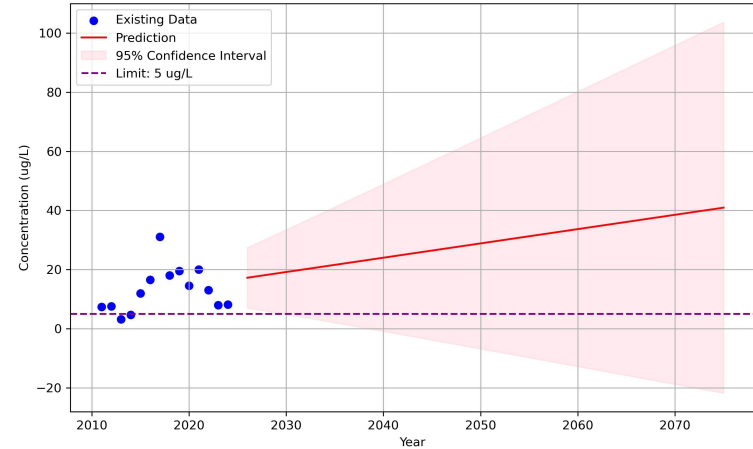


Orillia

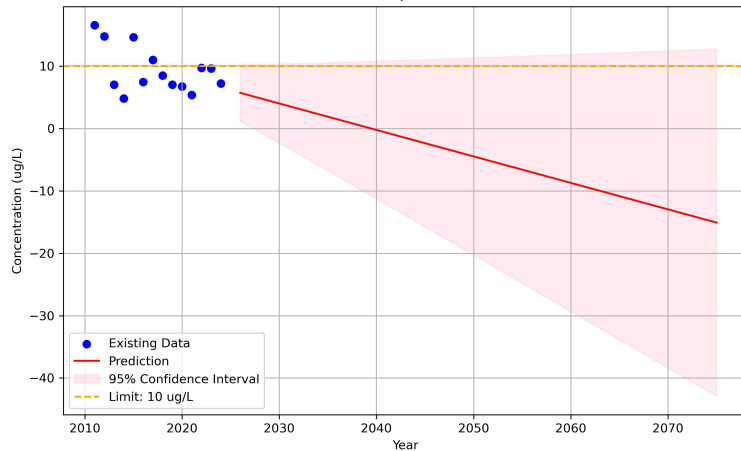
PCE at Well 1
Orillia, Well 1



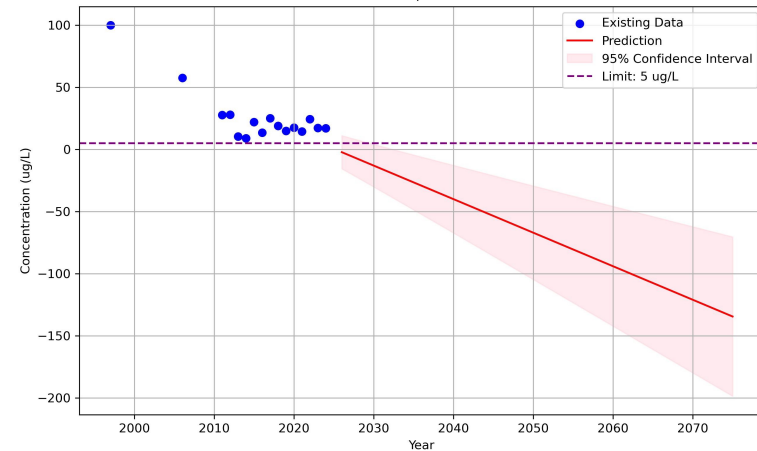
TCE at Well 1
Orillia, Well 1



PCE at Well 2
Orillia, Well 2

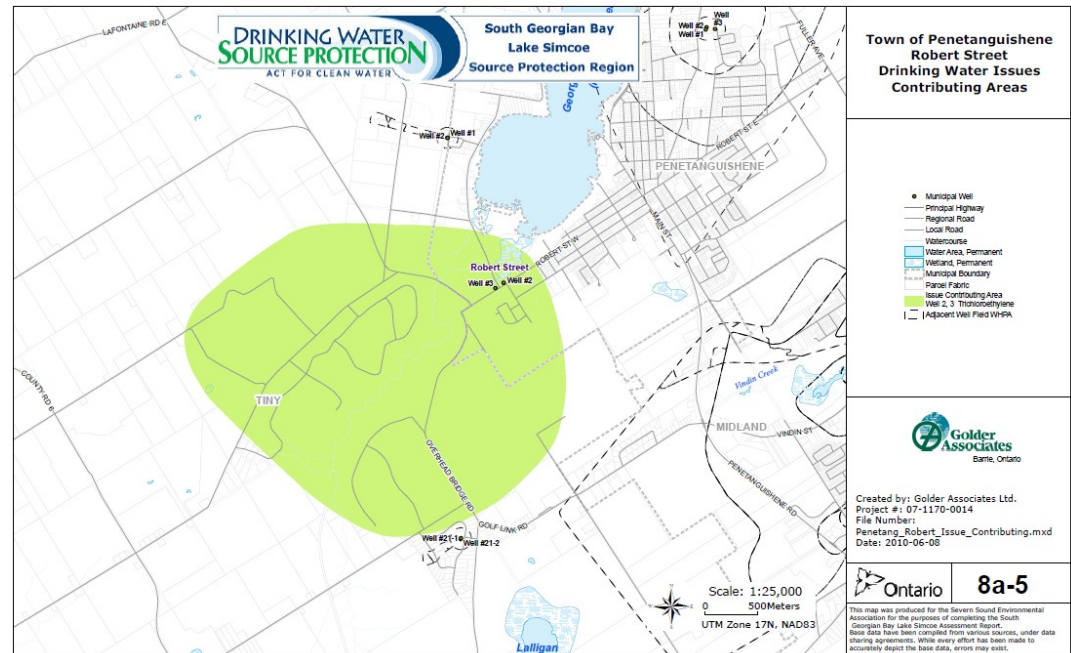


TCE at Well 2
Orillia, Well 2

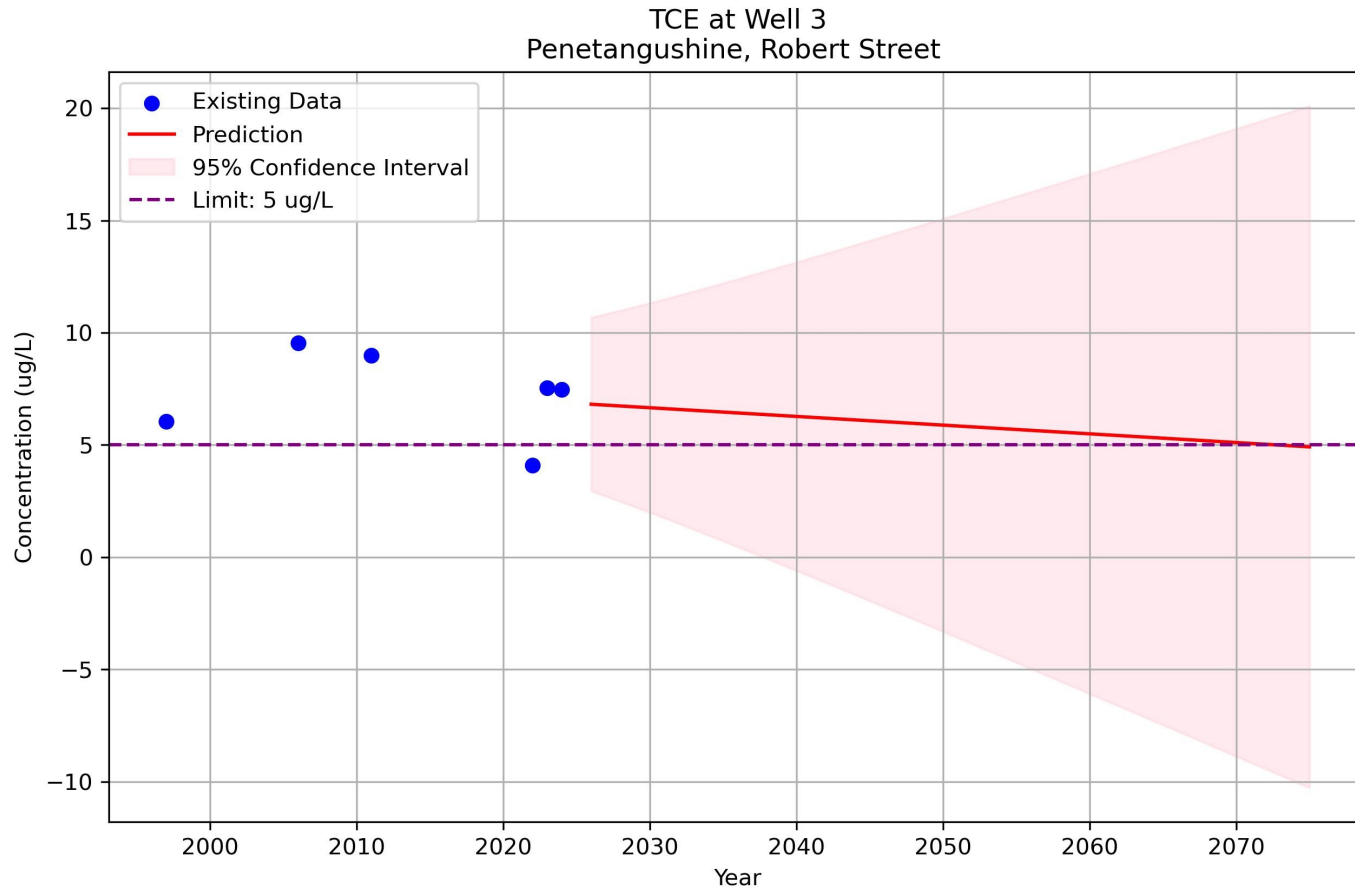


Penetanguishene

- Trichloroethylene (Robert St well)
- Well not currently in service, but may be needed in the future
- Concentrations remain above standard

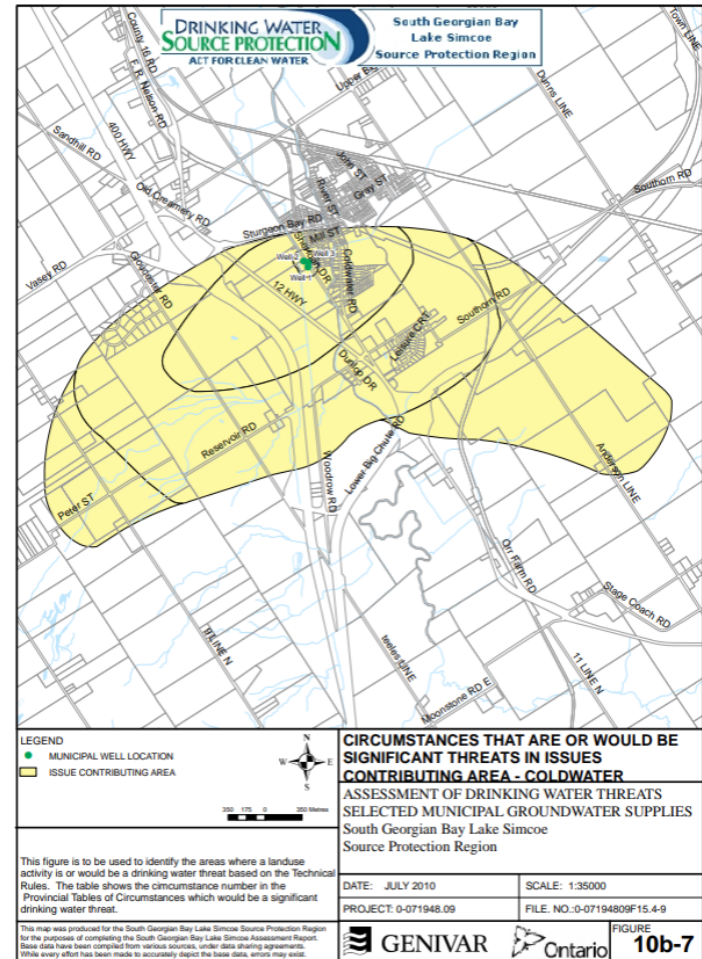


Penetanguishene

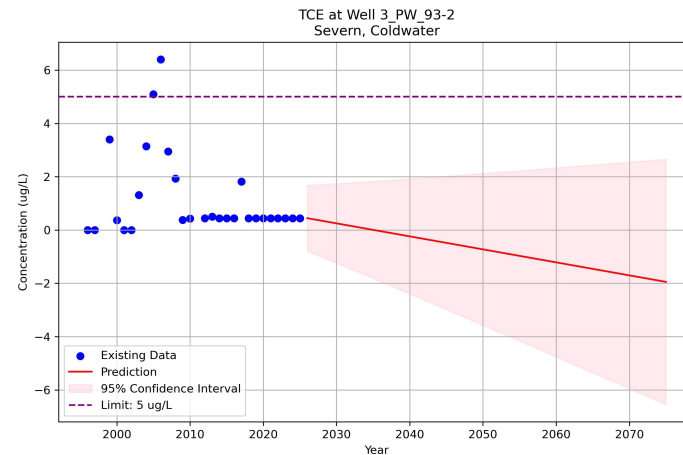
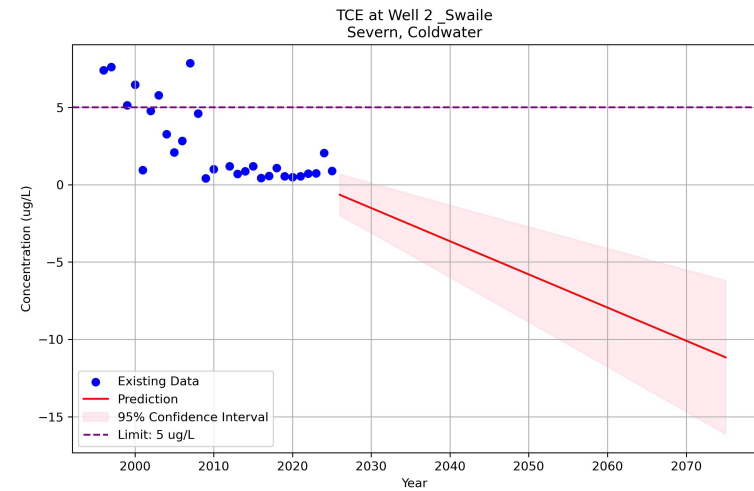
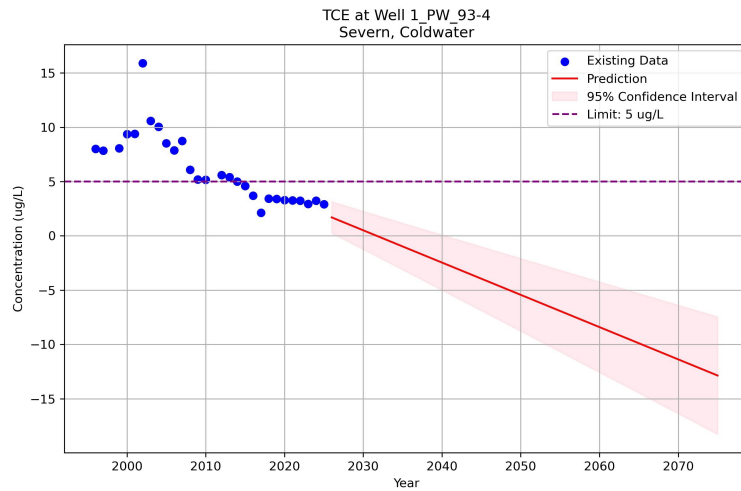


Coldwater (Severn)

- Trichloroethylene (wells 1, 2, 3)
- Concentrations now below Drinking Water Standard, and continuing to decrease
- Issue could be removed

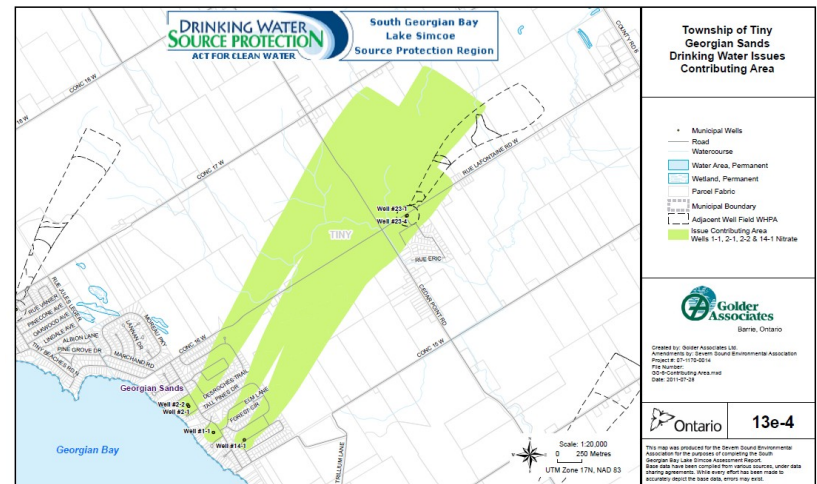


Coldwater (Severn)



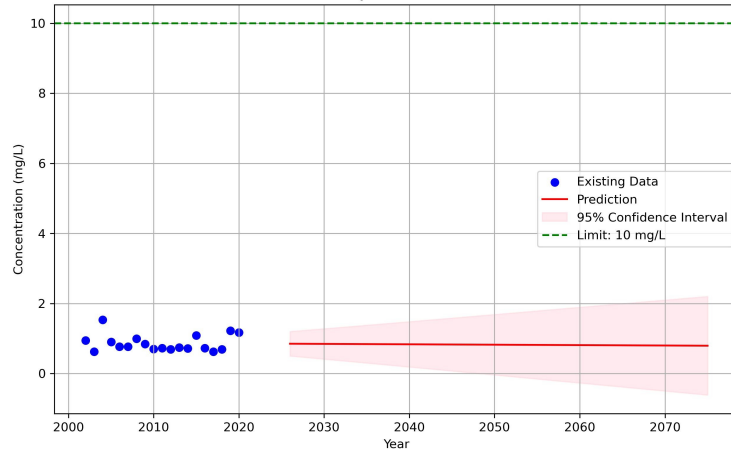
Tiny Township

- Nitrate (Lafontaine and Georgian Sands)
- Trends are decreasing in well 23, increasing in well 2
- Municipality is managing via mixing

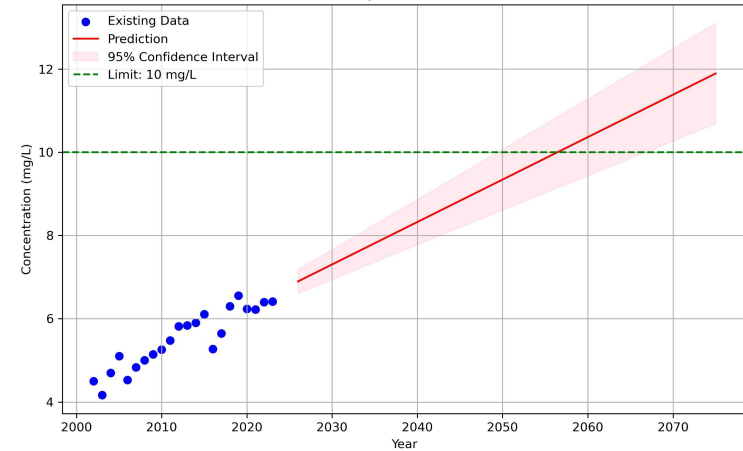


Tiny Township

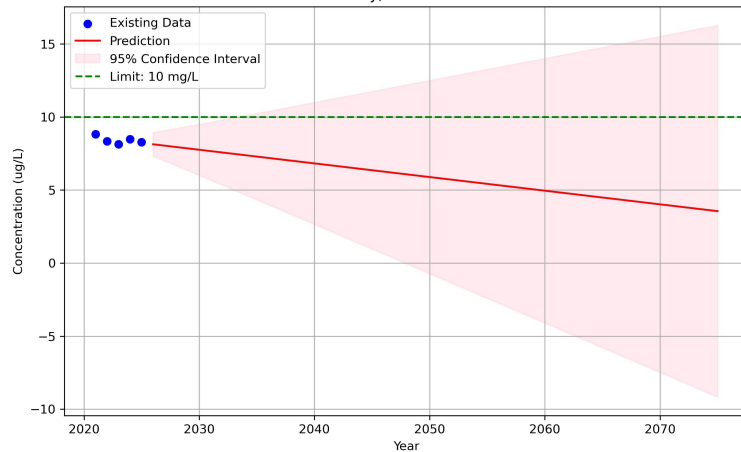
Nitrate at PH 01
Tiny, Lafontaine



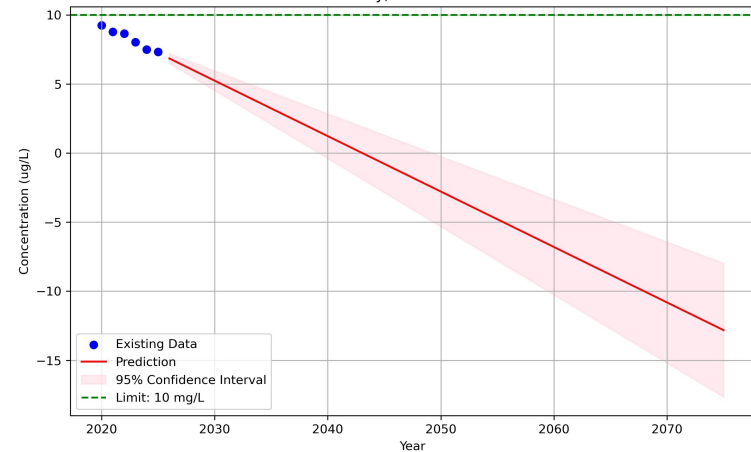
Nitrate at PH 02
Tiny, Lafontaine



Nitrate at PH 14 R
Tiny, Lafontaine

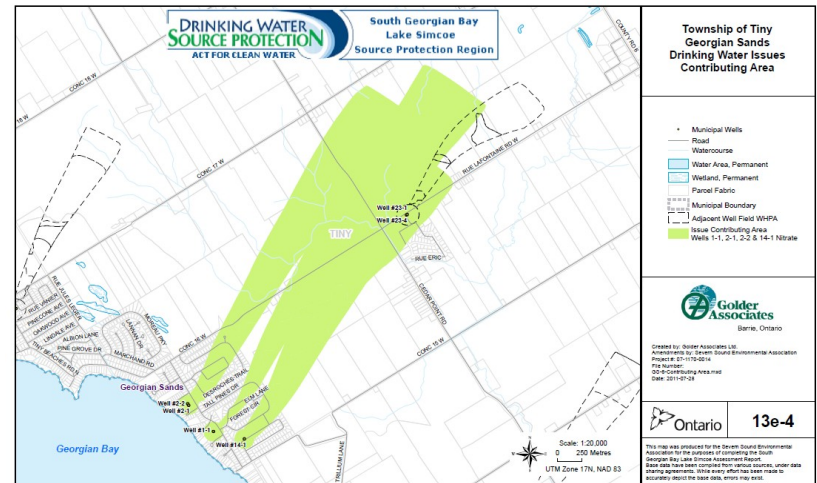


Nitrate at PH23
Tiny, Lafontaine



Tiny Township

- May be evidence that Risk Management Measures are working
- May be evidence of down gradient movement of plume
- Premature to remove Issue



In summary

- Good news at Coldwater – TCE no longer an issue
- Good news on horizon at Lafontaine and Orillia?
- Other wells aren't showing real improvements yet
- Keeping ICAs in place will ensure that protective policies remain as well
- This is a worthwhile process to do from time-to-time

Recommendation

- Use this amendment process to remove Coldwater ICA
- Retain other existing Issues and Issue Contributing Areas in Assessment Report
- Respond to Province that there is not sufficient evidence for de-listing any other than Coldwater

Thank you

Water
is life.
Protect
Yours.



Water *is* life. **Protect** Yours.