



UPDATES TO THE GRAND RIVER SOURCE PROTECTION PLAN

Wellington County Public Consultation Webinar – Water Quantity

February 18, 2021

AGENDA

Public Consultation Webinar

7:00 p.m.	Welcome
7:05 p.m.	Agenda review, introductions, rules of procedure
7:15 p.m.	Presentation
8:00 p.m.	Question period
8:40 p.m.	Comment period
9:00 p.m.	Adjourn

DIGITAL MEETING FORMAT

Platforms and Consent Disclaimer



- Participants are joining us tonight on a Zoom webinar via computer and telephone
- Public observers are watching tonight via a YouTube live stream embedded in the Source Protection Plan Update webpage
- Webinar video recording will be available on the Source Protection Plan Update webpage until the end of the public consultation period on March 8, 2021



Participants: Please be reminded that this livestream is part of the public record.

By speaking into your unmuted microphone during the meeting to ask a question or state a comment, you are consenting to the recording of your voice through the livestream.

RULES OF ENGAGEMENT

Public Consultation Webinar

Joining the webinar

- Please mute microphones / phones during the Presentation
 - For participants using their computer audio, to mute click on the microphone icon at the bottom left-hand corner of the Zoom meeting page. When muted, the microphone will have a slash through it.
 - For participants using a phone line, press *6 to mute

Viewing options

- There are two options to view the Zoom web page: 1. Gallery View; 2. Speaker view
 - Both viewing options are located at the top right-hand corner of the Zoom web page

RULES OF ENGAGEMENT

Questions and Comments

- Participants may ask questions and share comments only during the designated Questions period and Comments period following the presentation

Question period

- Questions are not considered official public consultation comments and will not be included in the submission package to the Ministry
- Question period will begin with questions from phone only participants followed by questions from participants using a device (computer/tablet/smart phone)
- Device participants may verbally ask their questions or type their questions; questions will be managed by the webinar moderator
- Once all questions from device participants have been answered, phone participants will have a final opportunity to ask questions

RULES OF ENGAGEMENT

Questions and Comments

Comment period

- Comments are considered official public consultation comments and will be included in the submission package to the Ministry
- Comment period will begin with comments from phone only participants followed by comments from participants using a device (computer/tablet/smart phone)
- Device participants are requested to verbally share their comments; comments will be managed by the webinar moderator
- Once all comments from device participants have been shared, phone participants will have a final opportunity to comment

* Note: comments may also be submitted in writing via email, by **March 8, 2021** to: comments@sourcewater.ca

WHAT IS SOURCE PROTECTION?

Clean Water Act, Lake Erie Source Protection Region

- Clean Water Act (Act) passed in 2006 to implement recommendations from the Walkerton Report
- Goal of Source Protection is to protect current and future sources of municipal drinking water from potential contamination and depletion
- Source Protection is the first barrier in a multi-barrier approach



WHY UPDATE THE PLAN?

Grand River Source Protection Plan Update – Wellington County

- On July 1, 2016, the Grand River Source Protection Plan took effect
- Two recent updates to the Plan took effect on October 1, 2020 and February 3, 2021, respectively
- New information and assessments have been completed that have resulted in further changes:
 - Addition of a new water quantity Wellhead Protection Area (WHPA-Q) that impacts the townships of Centre Wellington, Mapleton, and Woolwich
- A number of properties in the WHPA-Q may be subject to source protection plan policies as a result of these changes.

PRESENTATION OVERVIEW

Grand River Source Protection Plan Update – Wellington County, Water Quantity

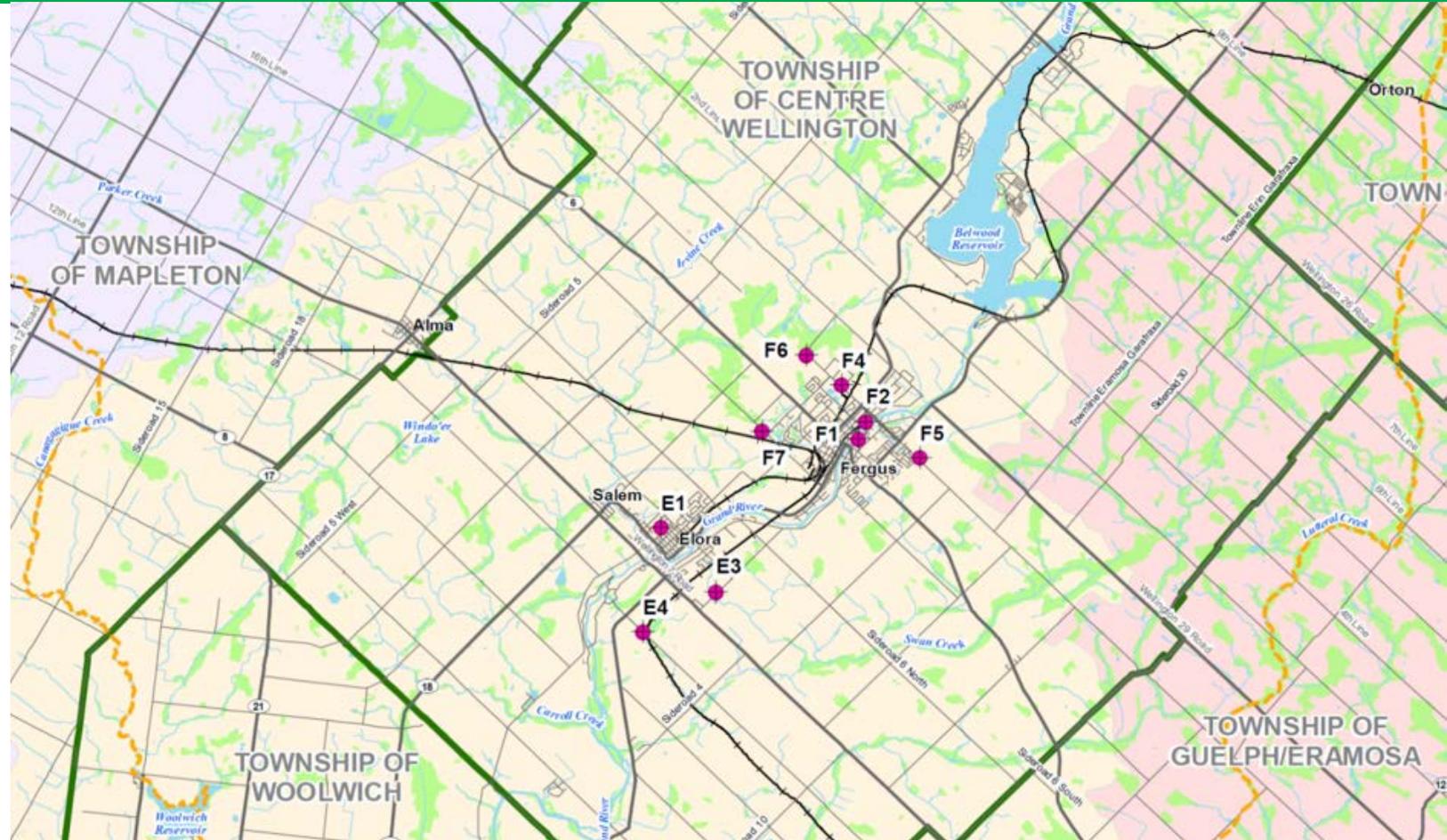
- This slide deck presents:
 - New WHPA-Q map
 - information on what activities and drinking water threats may exist within the WHPA-Q
 - how these activities are being addressed
 - information on the plan update process and opportunities to comment



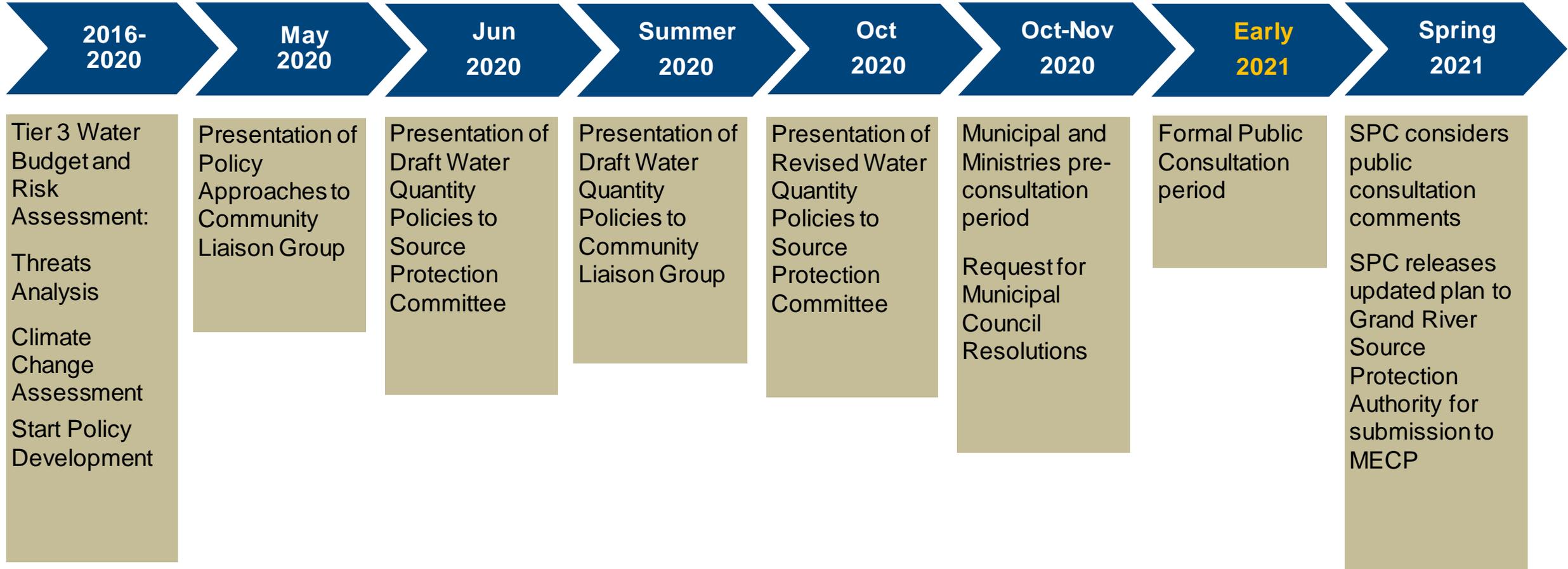
WATER BUDGET

Centre Wellington Tier 3 Study

- Detailed water budget study to identify if the Centre Wellington groundwater supply wells can meet current and future (2041) municipal water demands
- Estimated the potential impact of municipal groundwater pumping on other water uses (e.g., streams)
- Study area: 9 municipal water supply wells (deep bedrock)

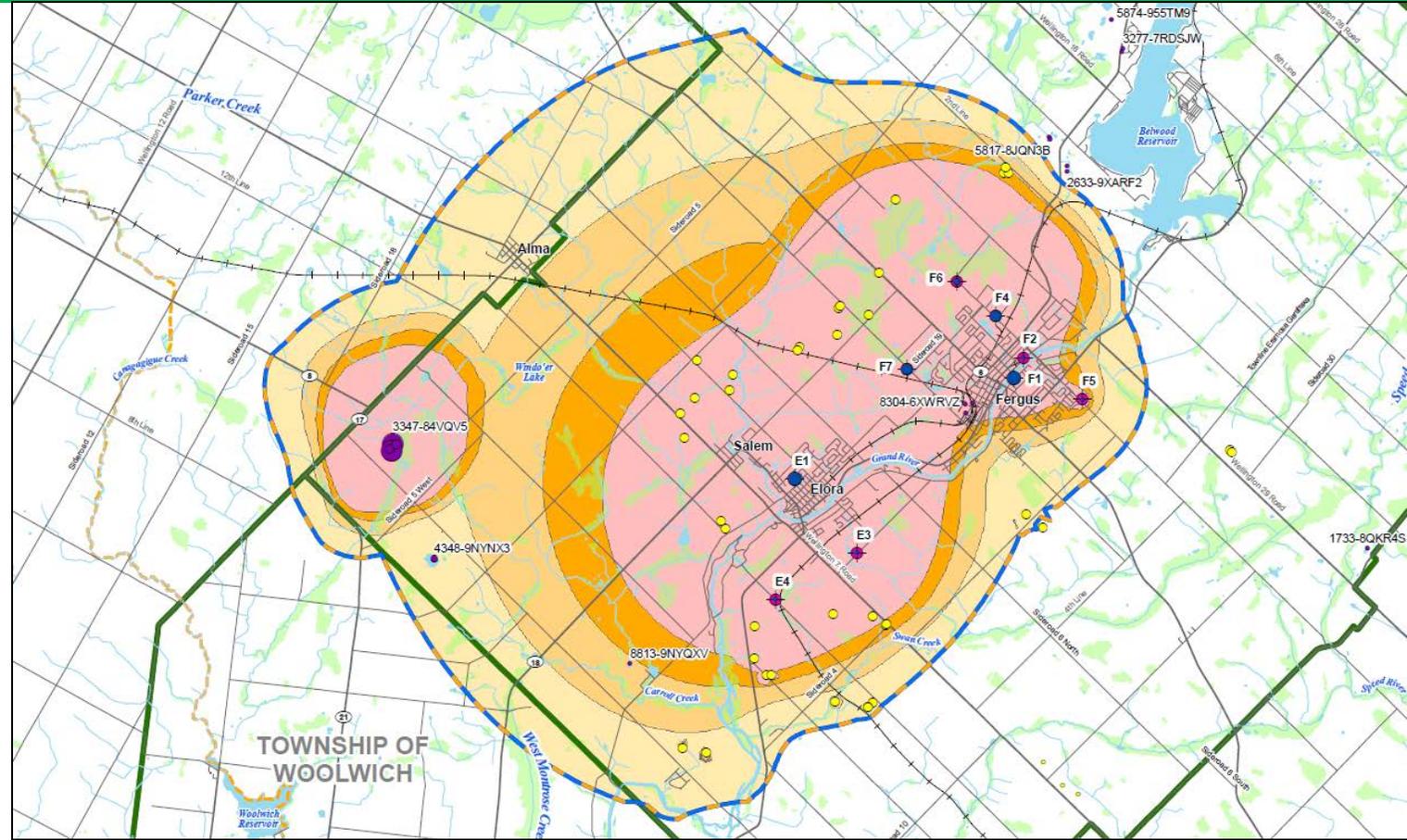


TIER 3 STUDY COMPONENTS



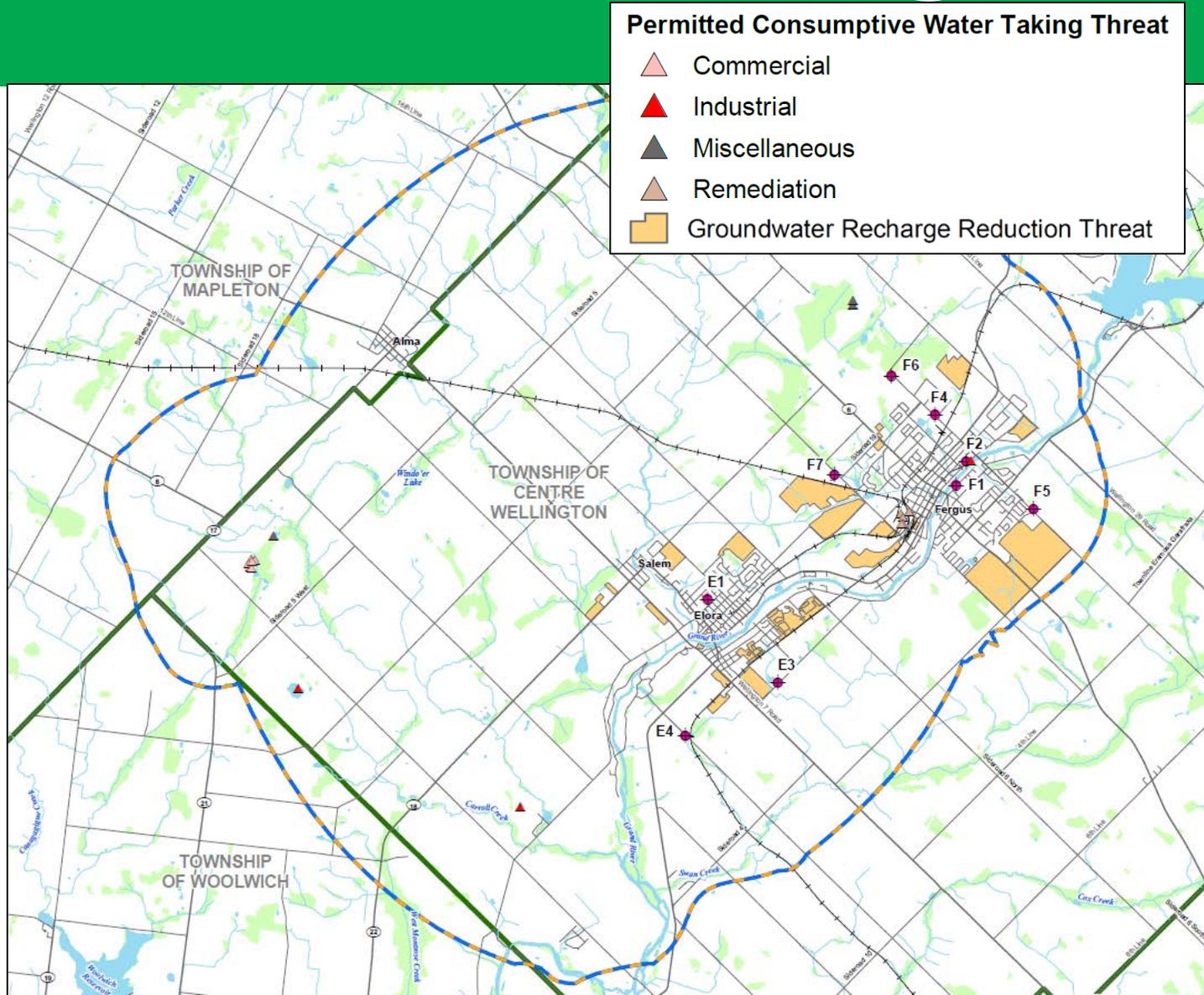
RISK ASSESSMENT RESULTS

- A new WHPA-Q proposed for the Centre Wellington municipal water supply
- WHPA-Q assigned significant risk level
- WHPA-Q = conservative screening area that represents the area that may be affected by current or future pumping from municipal and non-municipal wells
- The WHPA-Q is located in the Townships of Centre Wellington, Mapleton and Woolwich



WATER QUANTITY THREATS

- Activities that have the potential to be significant drinking water threats in WHPA-Q:
 - **Consumptive water taking:** an activity that takes water from an aquifer or surface water body without returning the water taken to the same aquifer or surface water body.
 - **Reducing recharge into the ground:** an activity that reduces the recharge of an aquifer.



THREATS ANALYSIS

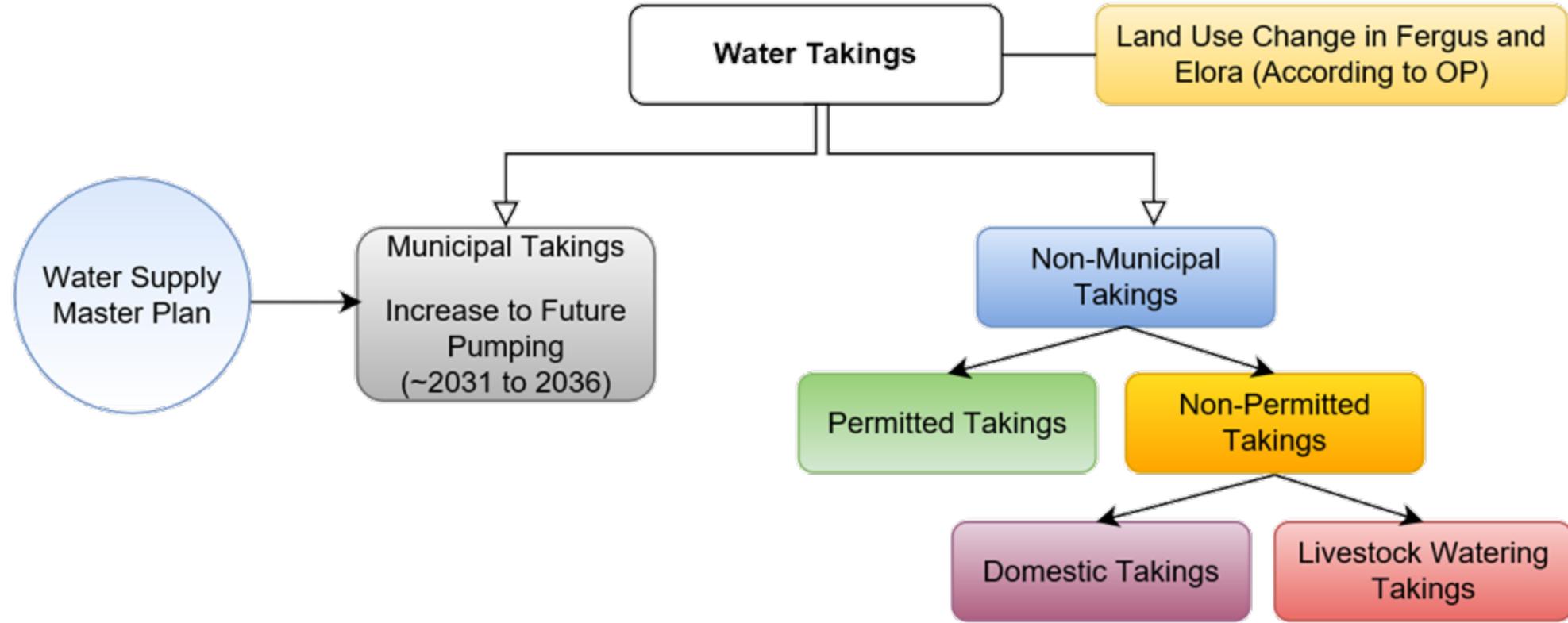
Objectives

1. Estimate the relative impact of water takings and land use changes on groundwater levels at Centre Wellington municipal wells
2. Use insights to inform development of appropriate policies to mitigate current and future water quantity threats



THREATS ANALYSIS APPROACH

- Scenarios developed to estimate the relative impact of different water takings or areas of land use change may have on simulated water level at municipal wells



THREATS ANALYSIS RESULTS

1. Largest influence on future groundwater levels is from **increased municipal pumping** to meet future population growth (i.e., 1.5 to 24.2 m of aquifer drawdown)
2. Cumulative effect of **existing unserviced domestic water well pumping** on water supply aquifer is minimal (i.e., 0.1 to 0.4 m of aquifer drawdown)
3. Effect of **future land development** on future groundwater levels in the water supply aquifer is minimal (i.e., 0.1 to 0.2 m of aquifer drawdown)
4. While effect of **existing permitted, non-municipal takings** on water supply aquifer was minimal (i.e., < 0.05 to 0.1 m of aquifer drawdown), **increased or new large groundwater takings** may affect groundwater levels at municipal wells depending on location and pumping rate
5. Effect of **existing livestock watering** on water supply aquifer is minimal (i.e., < 0.05 m of aquifer drawdown)

SUMMARY OF KEY FINDINGS

- Focus on management and optimization of municipal water takings using insights from Water Supply Master Plan
- Decrease future demand – water conservation and demand management
- Increase future supply – optimize/redevelop existing wells and install new wells
- Assess potential interference with municipal wells to mitigate impacts from new or expanded non-municipal takings
- Maintain recharge to support existing water budget, water quality and ecological functions
- Consider ongoing model maintenance and funding
- Consider maintaining groundwater and surface water monitoring program
- No climate change risk predicted to quantity of municipal groundwater supply to 2050 time horizon



WHERE POLICIES APPLY

- Majority of Centre Wellington WHPA-Q in Centre Wellington and Mapleton will be covered by policies in the Wellington County chapter of the Grand River Source Protection Plan
- A small portion of the WHPA-Q extends into Woolwich and will be covered by policies in the Region of Waterloo chapter
- Policies were collaboratively developed by the Wellington County and the Region of Waterloo to ensure consistency across the WHPA-Q



THE POLICY TOOLBOX

Tools to Manage Drinking Water Threat Activities under the Clean Water Act

- Education & Outreach, Incentives
- Pilot Programs, Research
- Specify Action, e.g., specific actions that help achieve Source Protection Plan objectives
- Land Use Planning
- Prescribed Instruments, e.g., a nutrient management plan, environmental compliance approval
- Review of development applications
- Risk Management Plan
- Prohibition



POLICY APPROACHES

Next Steps to Address Water Quantity

- Policies address prescribed activities under Clean Water Act:
 - #19 – Consumptive Water Takings (not returned to same aquifer)
 - #20 – Activities that reduce groundwater recharge
- Policies apply within WHPA-Q:
 - Existing and future water takings
 - Future activities that reduce groundwater recharge (e.g., roads, parking lots, development)
- Source Protection Committee delegated policy development to Project Team including Municipal Chapter Leads
- Project Team recommended draft policies to Source Protection Committee
- Draft Wellington County Chapter Policies presented on June 25, October 1, 2020 and January 21, 2021 to the Lake Erie Source Protection Committee

DRAFT POLICIES

Major Themes

- Policies can be grouped into 3 major themes:
 - Management through existing Provincial Prescribed Instruments
 - Growth and Development / Land Use Planning
 - Municipal Water Management
- The policies are designed to work in tandem with each other in an adaptive management framework
- *Adaptive management includes a feedback cycle where data is collected, management tools are evaluated and adapted / modified based on results. The cycle then starts again*

DRAFT POLICIES

Permit To Take Water / ARA Policies / Environmental Compliance Approvals

- Management through existing Provincial Instruments is preferred
- Achieves goal of Clean Water Act to not duplicate regulatory processes
- Policies provide direction to Ministries on terms and conditions for approvals
- Additional policies aim to strengthen relationship and collaboration between municipalities and Ministries
- Proposed Provincial water quantity management framework will support implementation of proposed policies
- *These policies primarily affect municipalities, industries, institutions (i.e. research facilities), commercial and residential subdivisions*

DRAFT POLICIES

Growth and Development

- Earlier/stronger contemplation of water supply considerations in provincial growth forecasting and municipal development planning
- New development should maintain existing groundwater recharge rates
- Increased study requirements in Official Plan for new developments taking > 50,000 L of water per day

- Increased coordination between Municipalities and the Province on planning applications/developments that take > 50,000 L of water per day.
- Proposed changes to definitions and report requirements to strengthen existing County OP requirements.

- *These policies primarily affect development properties for industries, institutions, commercial properties and residential subdivisions. It also affects municipalities.*

DRAFT POLICIES

Municipal Water Management

- Municipal optimization strategies and incorporating Tier 3 study results into Environmental Assessments
- Reinforcing/strengthening municipal water conservation programs
- Increase/maintain groundwater and surface water monitoring to support future updates to Tier 3 models
- Increasing information sharing between local water managers (e.g., municipalities, province and conservation authorities)
- Continued provincial funding for Tier 3 model maintenance and updates
- Updates to municipal design standards
- Education and Outreach

- *These policies primarily affect municipalities and government agencies although the education and water conservation audience will be County residents and the broader public.*

DRAFT POLICIES

Why are There no Part IV Policies? (Risk Management Plans, Prohibitions)

- Project Team's conclusion is that water taking and recharge reduction threats can be addressed through policy approaches other than Part IV, at this time.
- Adaptive management process allows reassessment when new information becomes available.
- Section 34 update process and source protection framework allows for regular updates of Source Protection Plan to ensure that policies are relevant and working.

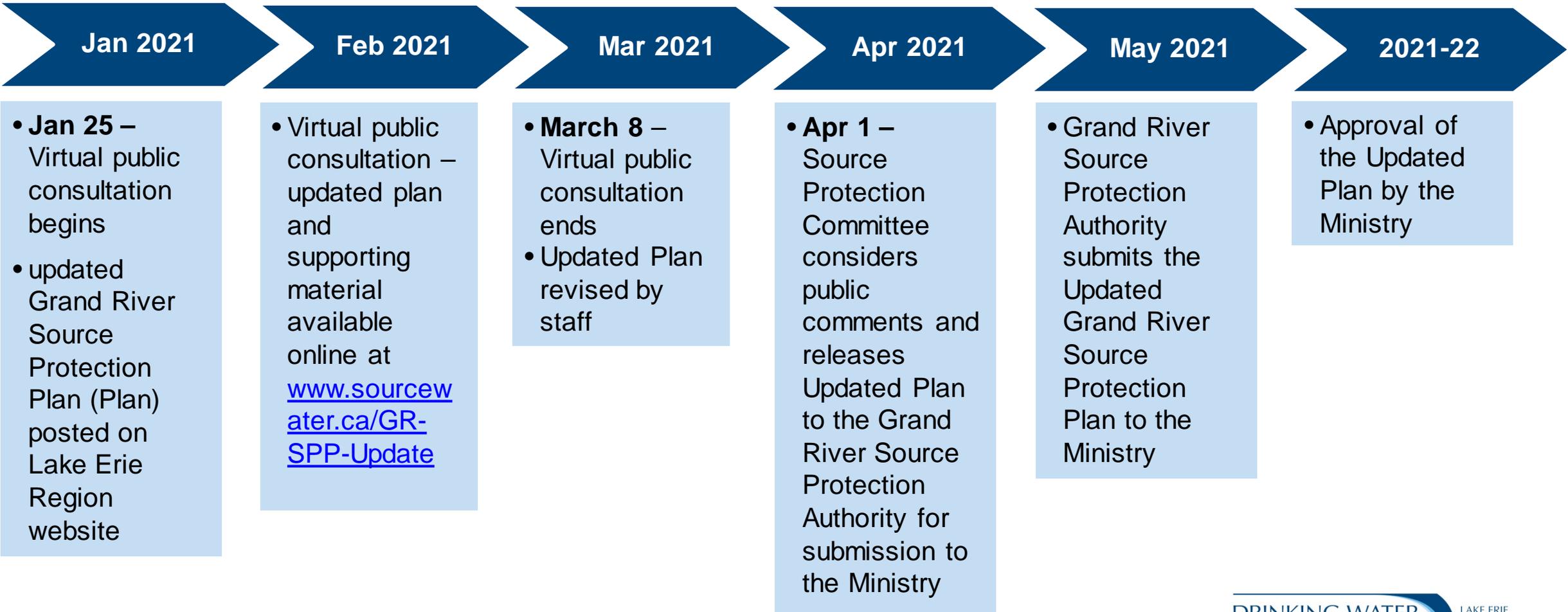
DRAFT POLICIES

Properties Potentially Affected by the Draft Policies

- County / Township Risk Management staff completed analysis to determine properties impacted by proposed WHPA-Q and letters were sent to the property owners
- 18 Permits To Take Water or potential permits were identified. These are water takings greater than 50,000 litres per day
- 55 properties or groups of properties were identified for potential recharge reduction activities (54 in Centre Wellington and 1 in Mapleton).
- Recharge reduction activities means properties that are available for future development and could therefore create impervious surfaces such as parking lots or buildings that could potentially reduce the amount of water recharging to the groundwater

TIMELINE

Public Consultation to Plan Approval



CONTACT INFORMATION

For questions about the plan update and how it may impact you and your property, contact:

Kyle Davis

Risk Management Official (RMO)

kdavis@centrewellinton.ca

519 846 9691 x362

For questions about the source protection program, the plan update and public consultation process, contact:

Ilona Feldmann

Lake Erie Region Source Protection Program Assistant

ifeldmann@grandriver.ca

519 621 2763 x2318

QUESTION PERIOD

- Questions are not considered official public consultation comments and will not be included in the submission package to the Ministry
- Question period will begin with questions from phone only participants followed by questions from participants using a device (computer/tablet/smart phone)
- Device participants may verbally ask their questions or type their questions; questions will be managed by the webinar moderator
- Once all questions from device participants have been answered, phone participants will have a final opportunity to ask questions

COMMENT PERIOD

- Comments are considered official public consultation comments and will be included in the submission package to the Ministry
- Comment period will begin with comments from phone only participants followed by comments from participants using a device (computer/tablet/smart phone)
- Device participants are requested to verbally share their comments; comments will be managed by the webinar moderator
- Once all comments from device participants have been shared, phone participants will have a final opportunity to comment

* Note: comments may also be submitted in writing via email, by **March 8, 2021** to: comments@sourcewater.ca



Thank you for participating!