

350 Wellington Road 7 | COMMENTS & RESPONSE MATRIX V.1

(TOWNSHIP OF ELORA) FILE NO. 2216B

Elora 7 OP INC.

COMMENTS RECEIVED FROM THE FOLLOWING DEPARTMENTS/ AGENCIES:

NO.	TOWNSHIP OF ELORA DEPARTMENTS	NO.	EXTERNAL AGENCIES
1.0	WELINGTON SOURCE WATER PROTECTION FEBRUARY 12, 2023	5.0	GRAND RIVER TRANSIT AUTHORITY JANUARY 31, 2023
2.0	TRITON ENGINEERING SERVICES LIMITED MARCH 2, 2023	6.0	UPPER GRAND DISTRICT SCHOOL BOARD DECEMBER 16, 2022
3.0	TRITON ENGINEERING SERVICES LIMITED MARCH 2, 2023		
4.0	BANKS GROUNDWATER ENGINEERING LIMITED FEBRUARY 1, 2023		

NO.	COMMENTS	RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE
1.0	WELINGTON SOURCE WATER PROTECTION				
	February 12, 2023 KYLE DAVIS 519-846-9691 (kdavis@centrewellington.ca)				
	COMMENTS				
1.1	This Notice is being issued under subsection 59 2(a) of the Clean Water Act, 2006 and was prepared in response to an Application (as described above under Description / Supporting Documents) received for the property that is identified above. One or more of the land uses proposed to be engaged in, at the above noted property, has been designated as a restricted land use under Section 59 of the Clean Water Act and the application is either for a provision of the Planning Act prescribed under Section 62, Ontario Regulation 287/07 of the Clean Water Act or for a building permit under the Ontario Building Code.	Noted.			
1.2	The Application was reviewed in accordance with the Clean Water Act and the Grand River Source Protection Plan as amended. Based on the information submitted as part of the Application, Section 57 (Prohibition) or Section 58 (Risk Management Plan) of the Clean Water Act do not apply, at this time, to the activities outlined in the Application for the above referenced property.	Noted.			
	Rationale				
1.3	<p>This Notice pertains to an Official Plan Amendment application and a Zoning Bylaw Amendment application submitted for 350 Wellington Road 7, Elora. As noted in the preconsultation comments, additional Notices will be required for all future planning applications. Comments will be provided during future application submissions, however, to deem the OPA and ZBA applications complete, a Section 59 Notice to proceed is being issued.</p> <ul style="list-style-type: none"> • This Notice is only effective as it relates to the above referenced Application • Any change to the information submitted under the Application nullifies this Notice, unless otherwise permitted by the Risk Management Official. • This Notice is not valid for any subsequent approvals under the Planning Act or building permits under the Ontario Building Code for the property. Further Section 59 notices will be required for subsequent applications at the property and a risk management plan may be required. • Pursuant to Section 53 (3), Ontario Regulation 287/07 under the Clean Water Act, this notice, once issued, is a public document. All information submitted for development of this notice is subject to the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA). 	Noted.			

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1.4	This Notice has been issued under the Authority of the Risk Management Official appointed for the Township of Centre Wellington under by-law 2016-22 . This Notice has been issued in accordance with the Clean Water Act, 2006, Section 59, Ontario Regulation 287/07 and the Grand River Source Protection Plan as amended.		Noted.			
2.0	TRITON ENGINEERING SERVICES LIMITED					
MARCH 2, 2023 HOWARD WRAY						
2.1	T1.1	Section 2.1 – Street and Intersection Characteristics It should also be noted that Wellington Road 7 is a signed Alternate Truck Route, and that trucks are encouraged to use WR 7 to avoid passing through the Fergus Downtown core.	Noted.			JD Northcote Engineering Inc.
2.2	T1.2	Section 2.2 - Local Transportation Infrastructure Improvements. The Study identifies possible improvement from the County’s Road Master Action Plan (RMAP), but identifies that since none of the noted improvements are in the County’s 10 year Capital Budget, none have been assumed for the purpose of the study. We have confirmed with the County that no work is planned in the next 10 years. It was further identified that future 4 laning of this section will be evaluated periodically, and is subject to change.	Noted.			JD Northcote Engineering Inc.
2.3	T1.3	Section 2.5 – Background Traffic Growth – A background traffic growth of 4.5% was used based on discussions with the Township and the Township’s Transportation Master Plan (TMP). It is noted that this provides a conservative analysis.	Noted.			JD Northcote Engineering Inc.
2.4	T1.4	Section 2.6 – Traffic Counts – The traffic counts were obtained on August 4, 2022. Counts are not expected to be impacted by COVID restrictions, but summer counts can show different characteristics than spring and fall counts. In particular, this week is a heavy vacation week following the Civic Long Weekend. We compared the counts to available nearby automatic count data obtained by the County, and consider it to be acceptable for use.	Noted.			JD Northcote Engineering Inc.
2.5	T1.5	Section 3.1 – Intersection Capacity Analysis Criteria – JD Northcote should provide a justification for the Peak Hour Factor (PHF) used in the LOS calculations. Was it based on the measured PHF from the traffic counts?	The peak hour factor is measured based on the traffic counts completed at the study area intersections. For the driveways/intersections that did not have traffic counts completed, a general peak hour factor			JD Northcote Engineering Inc.

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			of 0.92 was applied. Section 3.1 in the report was revised to clarify the determination of the peak hour factor.			
2.6	T1.6	<p>Section 3.3 – Background Intersection Operation – The analysis showed that left turn lanes at WR7 / Middlebrook / David Street West would be required in 2027 if the posted speed was raised to 60 km/h. This analysis was based on the MTO Tables for a Design Speed of 80 km/h (20 above posted). If the posted speed were left at 50 km/h left turn lanes would not be warranted (based on a Design Speed of 60 km/h, 10 above posted). If the posted speed remains at 50 km/h, as recommended elsewhere in the report, left turn lane warrants would not be met.</p>	Noted.			<p>JD Northcote Engineering Inc.</p>
2.7	T1.7	<p>Sections 5.1 and 5.2 – Intersection Operation – Level of Service is shown to be adequate for three entrances (discussed further below). The analysis showed that northbound left turn lanes are required based on the MTO Tables, but JD Northcote conclude that they are not required. We are not in agreement with this conclusion. The analysis shows they are warranted. Further, the importance of WR 7 as an alternate route, including for trucks, requires that impacts to through traffic be minimized. Left turn lanes are required both for safety and to preserve the operation of WR7 as an Arterial roadway.</p>	<p>The revised TIS includes a recommendation for northbound left turn lanes on WR7 at the North Access, Centre Access and South Access. The revised TIS also includes a recommendation for a southbound left turn lane on WR7 at South Street. The recommended left turn lanes on WR7 will mitigate the impact of the proposed entrances and maintain the traffic capacity on WR7.</p>			<p>JD Northcote Engineering Inc.</p>
2.8	T1.8	<p>Section 5.3 – Site Access As noted above, WR7 is an important Arterial Road. Wherever possible access should be to local or collector roads, and where this is not possible, the number of accesses should be limited to the minimum required. Accesses should be placed directly across from existing roads to limit the number of access points and allow for organized and predictable traffic operations. For this development, one access should be provided, and that access should be located across from South Street. If a second access is required for emergency purposes, it could be</p>	<p>As noted above, left turn lanes are provided on WR7 to mitigate the impact of the entrances to the subject site. As</p>			<p>JD Northcote Engineering Inc.</p>

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	controlled to be an Emergency Use only, and is suggested to be located at the south end of the development. The Level of Service calculations need to be revised to reflect the fewer entrance points.	noted in our TIS, the volume of traffic travelling between Centre Access and South Street will be negligible, consequently there are no operational or traffic safety issues and the proposed configuration is acceptable for this specific condition.			
2.9	T1.9 Section 5.4 - Pedestrian Connectivity Review Pedestrian connectivity to the rest of the community is vitally important as has been identified in the Report. The Report recommends that a pedestrian crossing be provided at Middlebrook Road/David Street West, which is the preferred location. A Type C PXO is suggested. Given the class of WR7, a Pedestrian Signal is the preferred treatment.	As outlined in the revised TIS, based on our review of the volume of traffic and design speed for the road, a pedestrian signal is not warranted in this location.			JD Northcote Engineering Inc.
2.10	T1.10 Section 5.6 – Speed Management Review The TIS notes that the County RMAP recommends increasing the speed limit on this section of WR7 from 50 km/h to 60 km/h. Due to this residential development and increase in pedestrian facilities, the report suggests that the 50 km/h speed limit be retained. The County should reserve the right to review speed limits at its discretion, but it is likely that this proposed development would result in the 50 km/h speed limit being retained. Due to the open nature of the topography, measures have been suggested to promote traffic calming, including tree plantings in the boulevard and constructing a 15 metre long raised centre median. These measures should be considered during the project development, although maintenance concerns need to be addressed. It was further recommended that a sidewalk be extended from the bridge to Middlebrook Road. This was identified as a County initiative, but the provision of sidewalks is the responsibility of the local municipality, in this case the Township of Centre Wellington.	Section 5.6 of the report has been revised to identify that the Township is responsible for the provision of sidewalks.			JD Northcote Engineering Inc.
	Summary Comments:				
2.11	The proposed development introduces a dense urban development on an arterial roadway with a rural cross-section. In order to accommodate pedestrian facilities, an urban cross-section will be required across the frontage. The introduction of traffic calming measures for speed control is recognized, but it is also important to maintain the	As outlined above, the revised TIS recommends left turn lanes on WR7 at			JD Northcote Engineering Inc.

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		operation of the arterial which is an alternate truck route. As such, the number of entrances should be minimized and turning lanes provided where required.	the North Access, Centre Access and South Access to mitigate the impact on the flow of traffic on WR7			
2.12		Improvements to the WR7 / Middlebrook Road / David Street South intersection are not required at this time, but operations should be monitored as other developments come onstream. Traffic signals may be warranted in the future. In the interim, a pedestrian crossing is required for this development. This intersection is the preferred location. The installation of a Pedestrian Signal is recommended due to the class of the roadway. The Pedestrian Signal should be designed so that it can be converted to a full traffic signal in future.	As outlined above, a pedestrian signal is not warranted for this location.			JD Northcote Engineering Inc.
3.0	TRITON ENGINEERING SERVICES LIMITED					
	MARCH 2, 2023 DUSTIN LYTTLE					
	Pre-Consultation Submission Comments					
3.1	Pre1.1	Traffic Impact Study to be provided. Pending, refer to comments regarding the TIS under separate cover.	Noted.			
3.2	Pre1.2	Addressed.	Noted.			
3.3	Pre1.3	Proposed development, including infrastructure and road works required external to the site to support the development, are to be reviewed and approved by the County of Wellington. Note: The County has planned for WR7 to be upgraded to a four-lane highway through this section. This will need to be considered as part of the detailed design. Pending, the County has provided their comments and are incorporated into this memo.	Noted.			
3.4	Pre1.4	Addressed.	Noted.			
3.5	Pre1.5	Proposed entrance into the site is to align with the existing South Street entrance. Pending, this is to be provided. Note: Development is only permitted to have one entrance onto WR7. An additional emergency access can be provided at the southern end of the site with infrastructure and Multi-Use Pathway (MUP).	The revised TIS includes a recommendation for northbound left turn lanes on WR7 at the North Access, Centre Access and South Access. The revised TIS also includes a recommendation for a			JD Northcote Engineering Inc. WMS Elora 7 OP Inc.

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			<p>southbound left turn lane on WR7 at South Street. The recommended left turn lanes on WR7 will mitigate the impact of the proposed entrances and maintain the traffic capacity on WR7.</p> <p>As noted in our TIS, the volume of traffic travelling between Centre Access and South Street will be negligible, consequently there are no operational or traffic safety issues and the proposed configuration is acceptable for this specific condition.</p>			
3.6	Pre1.6	Allocation from Water and Sanitary Reserve Capacity (RC) will be granted upon re-zoning. Pending.	Noted.			
3.7	Pre1.7	Developer will be required to enter into a Service Finance Agreement regarding the external infrastructure works required to service the development. External infrastructure works will be designed and administered by the Township. Upon design being complete, a cost estimate for external works will be prepared which will be the basis for the Service Finance Agreement and used for determine security requirements. Pending.	Noted.			Elora 7 OP Inc.
		Current Submission Comments:				
3.8	1.1	Composite Utility Plan (CUP) is to be provided indicating proposed utilities (hydro, gas and telecommunications) and photometric design.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.9	1.2	Sediment Erosion Control plan is to be provided. This is to include silt fence surrounding the property, mud mat and associated details.	Comment deferred to detailed design (SPA) per			MTE

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			correspondence with Triton on March 28, 2023.			
3.10	1.3	Tree protection fencing will be required. Provide detail and indicate on removals plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023			Schollen & Company Inc. MTE
3.11	1.4	Identify the snow storage area(s) as applicable.	The snow storage area has been identified on the revised Landscape Concept Plan being submitted. Snow accumulation in excess of storage capacity will be removed from the site.			WMS
3.12	1.5	Confirm what fencing is proposed throughout the development and on property lines. Note: at a minimum the expectation is that farm fencing will be provided between neighbouring properties.	The locations and types of fences are indicated on the plan and include: chain link, wood privacy and ornamental metal fences			Schollen & Company Inc. WMS
3.13	1.6	Provide copy of GRCA comments once received.	Noted, see below.			
3.14	1.7	Typical road cross section internal to the development is to be provided including details such as granular and asphalt thicknesses, curb type, sub-drains etc. which are to be supported by a geotechnical investigation.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE Grounded Engineering
3.15	1.8	Confirm proposed sidewalk width internal to the development. Note: Sidewalk is to be 1.8m when back of curb.	Sidewalk width confirmed as 1.8 m wide as shown on revised Site Plan.			WMS

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3.16	1.9	<p>There are no existing pedestrian connections provided to this site, therefore WR7 is to be upgraded to an Urban Standard, including curbs and gutters, multi-use pathway (MUP) on the west side from David St. to the north limit of the development frontage. Design details of these external works will be provided to the Developer once they are available and will be finalized once development configuration is confirmed.</p> <p>Note: cost sharing of the design and construction thereof will be detailed within the Service Finance Agreement.</p>	<p>Noted. The FS-SWM Report and Functional Drawings, along with other material included in the resubmission package, speak to and illustrate the proposed upgrades to bring Wellington Road 7 from David St to the north limit of the development frontage to an Urban Standard with a multi-use pathway on the west side to the north limit of the development frontage.</p>			MTE
3.17	1.10	<p>Noise Study or brief is to be provided to confirm mitigation requirements. At a minimum, there is an expectation that a noise warning clause on all units will be warranted.</p>	<p>An Environmental Noise Feasibility Assessment, dated October 17, 2022, was prepared by Valcoustics Canada Ltd. and submitted with the original OPA ZBA Applications. Noise warning clauses are included in Table 3 of the Report.</p>			Valcoustics Canada Ltd.
		Water System:				
3.18	1.11	<p>Two watermain service connections, complete with backflow preventor on each, are to be provided into the proposed development.</p>	<p>Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023. Please provide additional</p>			MTE

NO.	COMMENTS		RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE
			information regarding the reasoning for two watermain service connections and where they should be provided during detailed design.			
3.19	1.12	Watermain internal to the development is to be 150mm unless extenuating circumstances require oversizing which does not appear to be warranted here. Oversizing of mains results in water quality issues.	Noted, the FS-SWM Report has been revised accordingly. Internal watermain size to be reviewed during detailed design (SPA).			MTE
3.20	1.13	Based on the modeling provided within the Municipal Servicing Assessment a fire flow of ~143.5L/s is all that can be achieved at the site. This is less than the noted fire flow within the FSR. Confirm the required flow rates.	Noted, the FS-SWM Report has been revised accordingly. Building components such as firewalls will be added during detailed design (SPA) to reduce the required fire flow demand to the available fire flow level.			MTE
3.21	1.14	Water services to each unit are to be indicated on the servicing plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.22		Sanitary System:				
3.23	1.15	The 'Average Daily Flow' used to calculate the expected sanitary loading is to be 350L/day per capita. Although other rates were previously explored, this is the required rate as per the MSS and to be used for design within the development.	Noted, the FS-SWM Report and appended calculations have been revised accordingly.			MTE

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3.24	1.16	Sanitary services are to be indicated on the plans.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.25	1.17	Sanitary MH inverts, sewer slope and length are to be indicated on the servicing plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.26	1.18	Sanitary Sewer Main will be required on east side boulevard of WR7 up to southern limit of the development where it will then cross WR7 to service the Development. Servicing may be provided through MUP block or through the entrance required at South St.	Noted. Sanitary service location to be coordinated during detailed design (SPA).			MTE
	Stormwater Management:					
3.27	1.19	The separate storm network as discussed within the body of the SWM Report is to be indicated on the Servicing drawings to confirm spacing, layout etc.	A separate storm network is no longer required to direct runoff to Wetland A and B. The FS-SWM Report body has been updated accordingly and no additional storm network has been added to the servicing drawings.			MTE
3.28	1.20	The proposed SWM criteria is not acceptable given the size of the proposed development. Post development flows are to be within the pre-development rates as determined by modelling.	An alternate SWM strategy/criteria has been considered for this Site in accordance with our meeting on August 2022 with Triton. The FS-SWM Report has been updated to indicate our correspondence and considerations for a			MTE

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			suitable storm outlet to the Grand River.			
3.29	1.21	Storm Sewer MH inverts are to be indicated on the plans.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.30	1.22	Storm sewer length, slope and material is to be indicated on the servicing plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.31	1.23	Confirm no roadway ponding is expected during the 2 or 5-year storm events.	No roadway ponding is expected during the 2 or 5-year storm events with the proposed storm tanks. The FS-SWM Report has been updated to indicate this.			MTE
3.32	1.24	Stage-Storage-Discharge relationship for the SWM Storage Tanks is to be provided.	The FS-SWM Report has been revised to include the Stage-Storage-Discharge relationship for the proposed SWM Storage Tanks.			MTE
3.33	1.25	OGS is to be placed upstream of the proposed storage chambers. Storing untreated water will result in excessive sediment deposition and increased maintenance.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.34	1.26	Additional details are to be provided regarding the proposed storm storage tanks (i.e., depth, material, bedding, cover etc.). A typical section is to be provided.	The FS-SWM Report and Functional Servicing Plan #3 has been updated to provide additional details regarding the proposed			MTE

NO.	COMMENTS		RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE	
			storm tanks and typical detail, respectively.				
3.35	1.27	The proposed Storm System outlets to the WR7 ditch. This is not acceptable; therefore, storm sewer system will be required on WR7 which will be part of the external works required to support this development.	Noted. The FS-SWM Report included in this resubmission speaks to the required storm sewer system and provides two outlet options which are currently being reviewed by the GRCA.			MTE	
		Grading:					
3.36	1.28	Downspout locations are to be indicated on the grading plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE	
3.37	1.29	Proposed driveway slopes are to be indicated. Note, these are to be 2 - 8%	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE	
3.38	1.30	Additional grades are to be provided internal to the development, including top and bottom of slope grade points, swale slopes etc.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE	
3.39	1.31	Estimated seasonal high ground water level is to be indicated on the grading plan.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023. Refer to the Geotechnical Engineering Report and the Hydrogeological Assessment by			MTE	

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		Grounded for this information.			
3.40	1.32 Top of foundation elevation is to be indicated for all units. Note, this is to be a minimum 0.15m above the highest grade at the building.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.41	1.33 Slopes between the house and the roadway are to be indicated. Note, slope must be between 2-6%.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
3.42	1.34 Based on the proposed retaining wall height, fencing or other safety barriers will be required. Provide typical cross section of proposed retaining walls.	Comment deferred to detailed design (SPA) per correspondence with Triton on March 28, 2023.			MTE
4.0	BANKS GROUNDWATER ENGINEERING LIMITED				
	February 1, 23 WILLIAM DAVIS 519-829-4808				
	COMMENTS				
4.1	1.1 The above report provides a preliminary hydrogeological characterization of the subject lands. To complement a review of background geological and hydrogeological information, a total of 13 boreholes were drilled, and in eight of the boreholes monitoring wells were installed to provide detailed stratigraphic and groundwater level data. A groundwater level monitoring program began in May 2022, and continued to at least September 2022 (i.e. shortly before this report was issued). It is understood the groundwater monitoring is continuing on a bi-monthly basis to complete a full year, with the expectation of establishing the seasonally high water table. It is recommended that at least one monitoring well be equipped with a data logger, programmed to record water levels frequently to improve the likelihood of determining the high water table in the spring of 2023. It is expected following a full year of monitoring, this report will be updated with the groundwater level monitoring data.	On-going hydrogeological monitoring, using a pressure transducer, will capture springtime 2023 water levels and the results will be provided in an updated hydrogeological report.			Grounded Engineering
4.2	1.2 Sub-section 2.2 Topography and Drainage – it is indicated maps sourced from Ontario Ministries (note: Ministry names have changed since this report was issued) are presented in Appendix B. This appendix includes one map, a colourimetric illustration of site topography. It is recommended that, if possible, an alternative map with topographic contours be provided (i.e. using the topographic survey results depicted in Appendix A). The appendix did not include	The requested mapping revisions will be provided			Grounded Engineering

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		a map of local hydrology, although there are references to surface water features in the report text, including a wetland that is not readily apparent in other included figures and maps.	in the updated hydrogeological report.			
4.3	1.3	Sub-section 2.3 Regional Physiography – it is indicated the subject property is located within the Grand River Source Protection Area and a wellhead protection area. These are not considered physiographic features and should be discussed under a separate heading.	Discussion of non-physiographic features will be removed from this section and discussed separately in the updated report.			Grounded Engineering
4.4	1.4	Sub-section 2.6 Regional Climate – the mean annual Grand River Watershed climate data is provided. Data from the Environment Canada meteorological station located in Elora should also be considered as representative of the local climate.	Data from the Environment Canada meteorological station located in Elora will be incorporated into the updated hydrogeological report. The most recent climate normals available for this station are 1971-2000.			Grounded Engineering
4.5	1.5	Sub-section 2.7 Groundwater Resources – a summary of the MECP water well information is presented for a 500-m radius around the site. A total of 32 well records were used for this purpose. A map presented in Appendix D is referenced as depicting the locations of these wells; however, it appears this is an incorrect map referencing locations of local hydrants. This figure should therefore be corrected. In the next sub-section 2.8 Private Well Survey, it is indicated only 4 of the 32 wells were in active use. Figure 3 is referenced, which indicates 4 of 15 wells shown are in active use. An explanation is lacking and should be provided.	The MECP well locations are shown on Figure 3. The figure reference will be corrected in the updated report.			Grounded Engineering
4.6	1.6	Sub-section 2.11 Groundwater Quality – the proposed Centre Wellington sewer use criteria are referenced, and included in Appendix I. An explanation of the purpose of this comparison should be provided, and the results of the comparison provided. It is not clear from the table included in this sub-section.	The comparison criteria for the results of ground water quality will be clarified in the updated hydrogeological report. We will provide a comparison of the results			Grounded Engineering

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			to O. Reg. 153/04 Table 2.1 as the primary criteria. Ground water quality was compared to this suite of criterion should discharge of ground water to the storm sewer/ ditch network be required.			
4.7	1.7	Sub-section 2.12.1 In Situ Permeability Test (Single Well Response Test) – the results of hydraulic conductivity tests are summarized. Ranges in hydraulic conductivity are attributed to the screened interval for each monitoring well across varying overburden deposits. The table summarizing the results could include an additional column listing the soil sample numbers (from the borehole logs) within the screened interval of each monitor. This would provide for a comparison of the results in the next sub-section where hydraulic conductivity estimates related to grain size are provided. An average of the hydraulic conductivity from the single well tests is stated to be within a range. It is suggested averages for each type of deposit would be more useful.	The summary table will be reviewed with an eye to implement the suggested change in the updated hydrogeological report, with representative ranges provided for the identified strata.			Grounded Engineering
4.8	1.8	Sub-section 2.12.2 Grain Size Analysis – as noted above, presents estimates of hydraulic conductivity for selected soil samples. An explanation of the rationale for selecting these samples would be beneficial.	The rationale for sample selection will be provided in the updated hydrogeological report.			Grounded Engineering
4.9	1.9	Sub-section 2.13 Infiltration Testing – the results of Guelph permeameter testing at six locations on-site are presented. An explanation for the use of a safety factor of 10, applied to the infiltration rate should be provided.	The revised hydrogeological report will provide an explanation of the safety factor applied to the infiltration rate.			Grounded Engineering
4.10	1.10	Sub-section 2.14 Surface Water Features – it is indicated there are no surface water features on the subject property. Reference to a map illustrating local surface water features should be included, and the location of a wetland noted elsewhere in the report should also be noted.	A map showing the local surface water features will be provided in the			Grounded Engineering

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			updated hydrogeological report.			
4.11	1.11	Sub-section 2.15 Review of Regulatory Requirements – it is noted the Grand River Watershed Water Management Plan was reviewed and relevant information is provided in Appendix K; however, it appears this appendix includes the entire water management plan report. It is unclear why this has been done, as there is no explanation provided and no further reference to this document in subsequent sections of the report.	The revised hydrogeological report will provide an explanation the water management plan report and relevant excerpts.			Grounded Engineering
4.12	1.12	Sub-section 3.2 Summary of Hydrogeologic Conditions – indicates groundwater levels were measured at depths ranging from 0.84 to 3.7 mBGS; however, the table in sub-section 2.10 includes levels ranging from 0.78 to 4.73 mBGS. It is agreed that continued monitoring is required to estimate the seasonal high water table (refer to comment 1.1). Further information is also required to assess and illustrate (i.e. map) the interpreted direction of shallow groundwater flow on the subject property.	Acknowledged. Updated water levels will be provided once monitoring is complete. A figure presenting interpreted ground water contours and flow direction will be provided in the updated hydrogeological report.			Grounded Engineering
4.13	1.13	Sub-section 3.3 Water Balance Analysis – indicates the Grand River Watershed Climate Data was used to complete a Thornthwaite and Mather estimate of the water budget for the site. Again, local climate data is recommended for this purpose (refer to comment 1.4). The results should be presented in a complete 12-month table. The pre- and post-development water balance presented in Appendix L, does not appear to reference a Thornthwaite and Mather estimate. The last sentence of this section references a wetland to the southeast.	The water balance will be updated using the Environment Canada Elora. Work is on-going and will be provided in the updated hydrogeological report. The most recent climate normals available for this station are 1971-2000.			Grounded Engineering
4.14	1.14	Sub-section 3.4 Groundwater Control Requirements – describes shallow groundwater conditions in the centre of the site and references specific blocks from the site plan (i.e. Figure 2B). Once the updated seasonal high water table is assessed from a full year of groundwater level monitoring, a figure depicting the area of shallow depths to groundwater should be considered. It is recommended that more details (i.e. relevant equations and parameter	Work is on-going and will be provided in an updated hydrogeological report.			Grounded Engineering

NO.	COMMENTS		RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE
	<p>ranges) of the groundwater seepage estimates be presented and discussed. This sub-section is somewhat confusing and is lacking in detailed explanations of the data and calculations presented. It is also recommended that realistic staging of foundation excavations be determined through discussion with the developer and/or builder. A shortterm dewatering rate of 608,080 L/day is considered quite significant. The anticipated need for long-term dewatering is not clear. It is noted other development sites in Centre Wellington include methods of passive groundwater level control, and perhaps this is what is being alluded to in Sub-section 3.5.2.</p>					
4.15	1.15	<p>Sub-section 3.5 Assessment of Potential Impact – much of this section addresses the potential impact of construction dewatering and long-term groundwater control. The opening paragraph notes road salt may impact groundwater quality in the area. It is noted road salt is addressed in Sub-sections 4.1.3 and 4.2.1. Perhaps Sub-section 3.5 could be changed to Assessment of Potential Impact of On-site Groundwater Control and exclude reference to road salt.</p>	<p>The section heading will be updated as suggested, with reference to road salt removed from this section.</p>			<p>Grounded Engineering</p>
4.16	1.16	<p>Sub-section 3.5.3 Zone of Influence – a reference for the equation used should be provided and an explanation for the selected hydraulic conductivity value. A range of hydraulic conductivity values and resulting possible range in the zone of influence could be presented. This should consider the recommendation in comment 1.14 relative to staging of excavations.</p>	<p>The equation reference will be included in the updated report, and ZOI ranges will be estimated using the upper and lower range values of hydraulic conductivity.</p>			<p>Grounded Engineering</p>
4.17	1.17	<p>Sub-section 4.1.1 Identification of Vulnerable Areas – the first two sentences are understood, but the next two sentences are not clear.</p>	<p>Additional text will be added to clarify the paragraph.</p>			<p>Grounded Engineering</p>
4.18	1.18	<p>Sub-section 4.1.2 Identification of Anthropogenic Pathways – the summary of local wells differs from the well survey data presented in Sub-section 2.8. Is the purpose of this paragraph to indicate the development will influence an increase in contaminants reaching the local water wells?</p>	<p>The text will be updated to clarify; however, the text was meant to identify potential new pathways between surface and the unconfined overburden aquifer..</p>			<p>Grounded Engineering</p>

NO.	COMMENTS		RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE
			In addition the reference to Appendix D will be corrected to Figure 3.			
4.19	1.19	Sub-section 4.1.3 Identification of Water Quality Impacts and Threats – summarizes the threat of road salt application, but makes no comment or recommendation.	Recommendations for road salt management are included in 4.2.1.1; a reference will be added to direct the reader.			Grounded Engineering
4.20	1.20	Sub-section 4.1.4 Identification of Water Quantity Impacts and Threats – includes general statements, followed by three paragraphs that are contrary to Sub-section 3.5.	Section 4.1.4 will be harmonized with 3.5.			Grounded Engineering
4.21	1.21	Sub-section 4.2 Risk Management Plan – the content of the water quality and quantity sections is identical and needs to be corrected. It is anticipated the Risk Management Inspector and Official for the Township of Centre Wellington will have comments related to this section once it is updated.	The table in 4.2.2.1 will be corrected to include the correct content.			Grounded Engineering
4.22	1.22	Sub-section 4.2.2.2 Reduction in Aquifer Recharge – there is no analysis provided to support the statements made. An infiltration plan is mentioned, but it is not clear what this is at this time.	The infiltration plan is preliminary, and more details will be forthcoming from the civil engineer.			Grounded Engineering
4.23	1.23	Section 5 Conclusions and Recommendation – it is anticipated that revisions will be made to this section when an updated report is issued. Comments related to this section will be provided upon review of the updated report.	Section 5 will be updated in the revised hydrogeological report.			Grounded Engineering
4.24	1.24	The report reviewed is considered preliminary and further information, analyses, and explanations are required before favourable and supportive comments can be provided.	Acknowledged.			Grounded Engineering
5.0	GRAND RIVER CONSERVATION AUTHORITY					
	JANUARY 31, 2023 LAURA WARNER 519-621-2763 (lwarner@grandriver.ca)					
5.1		GRCA has reviewed this application as per our delegated responsibility from the Province to represent provincial interests regarding natural hazards identified in Section 3.1 of the Provincial Policy Statement (PPS, 2020) and as a	Noted.			

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	regulatory authority under Ontario Regulation 150/06. GRCA has also provided comments as a public body under the Planning Act as per our CA Board approved policies.				
5.2	Information currently available at this office indicates that the subject property contains the regulated allowance of an offsite wetland. Due to the presence this feature, a portion of the property is regulated by the GRCA under Ontario Regulation 150/06 - Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation. Future development or other alteration within the regulated area will require prior written approval from GRCA in the form of a permit pursuant to Ontario Regulation 150/06.	Noted.			MNAL
5.3	It is understood the intent of these amendments is to facilitate the development of townhouse, back-to-back townhouse, and live-work townhouse units. Based on our review of the applications, GRCA staff have no objection to the approval of the requested amendments. It is understood that a full review of the technical reports and studies provided will be undertaken as part of future planning applications.	Noted.			
5.4	Consistent with GRCA's 2023 approved fee schedule, this application is considered a minor Zoning By-law Amendment/Official Plan Amendment and the applicant will be invoiced in the amount of \$465.00 for the GRCA's review of this application.	Noted.			Elora 7 OP Inc.
6.0	UPPER GRAND DISTRICT SCHOOL BOARD				
	DECEMBER 16, 2022 ADAM LARANJERO 519-822-4420 ext. 821 (municipal.circulations@ugdsb.on.ca)				
6.1	Planning staff at the Upper Grand District School Board have received and reviewed the above noted application for an Official Plan Amendment and a Zoning Bylaw Amendment to facilitate the development of townhouse, back-to-back townhouse, and live-work townhouse units for a total of 273 residential units.	Noted.			
6.2	<p>Please be advised that the Planning Department does not object to the proposed application, subject to the following conditions, to be imposed during future Site Plan Control or Plan of Condominium applications:</p> <ul style="list-style-type: none"> The collection of Education Development Charges is required prior to the issuance of a building permit(s). Planning staff request that the developer provide the Upper Grand District School Board with a digital file of the plan containing parcel fabric and street network. In an effort to ensure children can walk safely to school or to a designated bus pickup point, the Board requests that adequate sidewalks, lighting and snow removal (on sidewalks and walkways) be provided. 	Noted. These items will be addressed at the Site Plan Control application stage.			WMS Elora 7 OP Inc.

NO.	COMMENTS	RESPONSE	REFERENCE	ADDRESSED	CNSLT. RESPONSIBLE
	<ul style="list-style-type: none"> • It is recommended that an advisory sign be erected at the development site informing prospective residents about schools in the area. • That the developer shall advise all purchasers of residential units and/or renters of same, by inserting the following clause in all offers of Purchase and Sale/Lease: "In order to limit liability, public school buses operated by the Service de transport de Wellington-Dufferin Student Transportation Services (STWDSTS), or its assigns or successors, will not travel on privately owned or maintained right-of-ways to pick up students, and potential busing students will be required to meet the bus at a congregated bus pick-up point." 				