File: OP-2022-01, 23T-22001, 23CD-22001, RZ06-22

Date: April 28, 2023

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Response	Consultant Contact
1.0	Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI)						
1.1	 Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 Archaeological Assessment Proposed Residential Redevelopment, Fergus Golf Club, 8282 and 8243 Wellington Rd 19, Parts of Lots 9, 10 and 11, Concession 3, Geographic Township of Garafraxa, now Township of Centre Wellington, County of Wellington, Ontario" Dated Feb 28, 2022, Filed with MHSTCI Toronto Office on N/A, MHSTCI Project Information Form Number P364-0194-2022, THSTCI File Number 0016146 	01-Mar-22	MHSTCI	Zeeshan Abedin Archaeology Program Unit 416-418-0949 zeeshan.abedin@ontari o.ca	n/a	Noted	n/a
1.2	Te above-mentioned report, which has been submitted to this ministry as a condition of licensing on accordance with Part VI of the Ontario Heritage Act, RSO 1990, c0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.	01-Mar-22	MHSTCI	Zeeshan Abedin Archaeology Program Unit 416-418-0949 zeeshan.abedin@ontari o.ca	n/a	Noted	n/a
2.0	Upper Grand District School Board						
2.1	Upper Grand District School Board comments received May 16, 2022 are superseded by the comments below.	16-May-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	n/a	Comments are addressed in letter responding to June 8, 2022.	n/a
2.2	Planning staff at the Upper Grand District School Board have received and reviewed the above noted application for an Official Plan Amendment, Draft Plan of Subdivision and Draft Plan of Common Elements Condominium to permit the development of 118 residential units.	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	n/a	Noted.	n/a
2.3	Planning staff previously provided a response to the Zoning Bylaw Amendment application for the subject lands. Board's previous condition shave since been amended to reflect the Draft Plan of Subdivision and Draft Plan if Common Elements Condominium applications.	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	n/a	Noted.	n/a
2.4	Please be advised that the Planning Department does not object to the proposed application, subject to the following conditions:	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	n/a	Noted.	n/a
2.4.1	That Education Development Charges shall be collected prior to the issuance of a building permit(s)	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	Geranium	It is understood that EDCs will be collected prior to the issuance of building permits. This will be captured in the Conditions of Draft Approval.	

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2.4.2	That the developer shall agree to provide the Upper Grand District School Board with a digital file of the plan of subdivision in either ARC/INFO export or DWG format containing parcel fabric and street network	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	RPE/GSP	The digit Plan of S response
2.4.3	That the developer and the Upper Grand District School Board reach an agreement regarding the supply and erection of a sign (at the developer's expense and according to the Board's specification) advising prospective residents about schools in the area.	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	Geranium/JPS	The deve Laranjeir required agreeme capturec Approva
2.4.4	The developer shall agree in the subdivision agreement to advise all purchasers of residential units and/or renters of same, by interesting 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 potentially busing students will be required to meet the bus at a congregated bus pick-up point".	08-Jun-22	UGDSB	Adam Laranjeiro Planning Technician 519-822-4420 x821 municipal.circulations@ ugdsb.on.ca	Geranium/JPS	This clau Conditio be incorp Agreeme of Purcha prospect
3.0	Developer timeline, obligations and installation					
3.1	Canada Post has reviewed the proposal for the above noted Development and has determined that the completed project will be serviced by centralized mail delivery provided through Canada Post Community Mail Boxes. Please note the Canada Post multi-unit policy may also apply depending on building type.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	Noted.
3.2	Multi-unit buildings and complexes (residential and commercial) with a common lobby, common indoor or sheltered space require a centralized lockbox assembly which is to be provided by, installed by, and maintained by the developer/owner at the owner's expense. Buildings with 100 units or more MUST have a rear loading Lock Assembly with a dedicated secure mail room.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	n/a
3.3	Our centralized delivery policy will apply for any buildings of 3 or more self- contained units with a common indoor area. For these units the owner/developer will be required to install a mail panel and provide access to Canada Post.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	n/a
3.4	In order to provide mail service to this development, Canada Post requests that the owner/developer comply with the following conditions:	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	n/a

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gital file of the proposed Draft Subdivision is attached to this se.	
veloper will reach out to Mr. erro to discuss the details of the ed signs. is agreement. If an nent is required, it will be ed in the Conditions of Draft val.	
ause will be captured in the ions of Draft Approval and will orporated into the Subdivision nent as well as the Agreement chase and Sales for the ctive homeowners.	
	n/a
	n/a
	n/a
	n/a

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3.4.1	The owner/developer will consult with Canada Post to determine suitable permanent locations for the placement of Community Mailboxes and to indicate these locations on appropriate servicing plans.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Architect/Burn side	During the Detailed Design Stage, the permanent location of the Community Mailboxes will be determined in consultation with Canada Post. The location will be reflected on all appropriate detailed design drawings. This will be captured as a condition of Draft Approval.	
3.4.2	The Builder/Owner/Developer will confirm to Canada Post that the final secured permanent locations for the Community Mailboxes will not be in conflict with any other utility; including hydro transformers, bell pedestals, cable pedestals, flush to grade communication vaults, landscaping enhacements (tree planting) and bus pads.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Architect, Burnside, Schollen, RTG	During the Detailed Design Stage, the permanent location of the Community Mailboxes will be determined in consultation with Canada Post and will ensure that the location will not conflict with any other utilities. This will be reflected on all detailed design drawings. This will be captured as a Condition of Draft Approval.	
3.4.3	The owner/developer will install concrete pads at each of the Community Mailbox locations as well as any required walkways across the boulevard and any required curb depressions for wheelchair access as per Canada Post's concrete pad specification drawings.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Burnside/Gera nium (Construction)	During construction, the location of the Community Mailboxes will be constructed as per Canada Post's specifications. This will be captured as a Condition of Draft Approval and included as a clause in the subdivision agreement.	
3.4.4	The owner/developer will agree to prepare and maintain an area of compacted gravel to Canada Post's specifications to serve as a temporary Community Mailbox location. This location will be in a safe area away from construction activity in order that Community Mailboxes may be installed to service addresses that have occupied prior to the pouring of the permanent mailbox pads. This area will be required to be prepared a minimum of 30 days prior to the date of first occupancy.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Burnside/Gera nium (Construction)	During construction, a suitable temporary Community Mailbox location will be prepared to the satisfaction of Canada Post. This will be captured as a Condition of Draft Approval and included as a clause in the subdivision agreement.	
3.4.5	The owner/developer will communicate to Canada Post the excavation date for the first foundation (or first phase) as well as the expected date of first occupancy.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Geranium (Construction)	Prior to excavation, the developer will contact Canada Post to provide notice on excavation of the first foundation and/or Phase One as well as the expected Occupancy Date. This will be captured as a Condition of Draft Approval and included as a clause in the subdivision agreement.	
3.4.6	The owner/developer agrees, prior to offering any of the residential units for sale, to place a "Display Map" on the wall of the sales office in a place readily available to the public which indicates the location of all Canada Post Community Mailbox site locations, as approved by Canada Post and the Town of Centre Wellington (Fergus).	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Geranium (Sales/Marketi ng)	Display Maps with the locations of the Community Mailboxes will be posted in the sales office. This will be captured as a Condition of Draft Approval and included as a clause in the subdivision agreement.	

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3.4.7	The owner/developer agrees to include in all offers of purchase and sale a statement, which advises the prospective new home purchaser that mail delivery will be from a designated Community Mailbox, and to include the exact locations (list of lot #s) of each of these Community Mailbox locations; and further, advise any affected homeowners of any established easements granted to Canada Post.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	JPS	This claus Condition be incorp Agreeme Purchase homeow
3.4.8	The owner/developer will be responsible for officially notifying the purchasers of the exact Community Mailbox locations prior to the closing of any home sales with specific clauses in the Purchase offer, on which the homeowners do a sign off.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	Geranium (Sales/Marketi ng)	Purchase location prior to c as a Conc included agreeme
3.5	Canada Post further requests the owner/developer be notified of the following:	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	Noted.
3.5.1	The owner/developer of any condominiums will be required to provide signature for a License to Occupy Land agreement and provide winter snow clearance at the Community Mailbox locations.	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	JPS	A signatu Land Agr snow cle Mailbox prior to C captured Approval
3.5.2	Enhanced Community Mailbox Sites with roof structures will require additional documentation as per Canada Post Policy	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	This is ur
3.5.3	There will be no more than one mail delivery point to each unique address assigned by the Municipality	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca	n/a	This is ur will be di Mailboxe
3.5.4	Any existing postal coding may not apply, the owner/developer should contact Canada Post to verify postal codes for the project	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca		This is ur developr Canada F arrangen design st Condition
3.5.5	The complete guide to Canada Post's Delivery Standards can be found at: https://www.canadapost.ca/cpo/mc/assets/pdf/business/standardsmanual_e n.pdf	12-May-22	Canada Post	Neil Mazey, Delivery Services Officer, Delivery Planning 519-281-2253 neil.mazey@canadapost .ca		n/a

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use will be captured in the ons of Draft Approval and will prporated into the Subdivision nent and Agreement of se and Sales for the prospective wners.	
ses will be notified of the exact n of the Community Mailboxes o closing. This will be captured ndition of Draft Approval and ed as a clause in the subdivision nent	
	n/a
ture for a License to Occupy greement and providing winter learance at the Community x locations will be determined o Occupancy. This will be ed as a Condition of Draft val.	
understood.	n/a
understood. All mail services directed to the Community xes.	n/a
understood, and the pment team will reach out to a Post to make the appropriate ements during the detailed stage. This will be captured as a on of Draft Approval.	
	n/a

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<u>4.0</u>	Grand River Conservation Authority (GRCA)						
4.1	Grand River Conservation Authority (GRCA) staff has reviewed the above- noted application for Rezoning to facilitate the redevelopment of the Fergus Golf Course for a Plan of Subdivision and a Plan of Condominium, and has prepared the following comments on the Zoning By-law Amendment, Official Plan, Subdivision and Condominium applications.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	SUPERCEDED BY JUNE 21 COMMENTS	
4.2	GRCA has reviewed the information that has been provided to date, and has the following comments to offer regarding the proposed redevelopment.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	SUPERCEDED BY JUNE 21 COMMENTS	
4.3	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 regulatory authority under Ontario Regulation 150/06. GRCA has also provided comments as per our MOU with the County of Wellington and as a public body under the Planning Act as per our CA Board approved policies.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	SUPERCEDED BY JUNE 21 COMMENTS	
4.4	The subject lands contain wetland features, and watercourses with associated buffers delineating the GRCA regulation limits.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	SUPERCEDED BY JUNE 21 COMMENTS	
4.5	Groundwater levels should be shown on Figure 8. Can be provided at the next stage in process.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca		SUPERCEDED BY JUNE 21 COMMENTS	

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4.6	Further details for how major flows will enter SWM pond will need to be provided at the next stage in process	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Burnside	SUPERCEDED BY JUNE 21 COMMENTS	
4.7	Water Balance: A decrease of 14% of infiltration is expected over the site. LID features will try to be incorporated during detailed design. GW could be limiting factor with average depth 0.6.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Golder	SUPERCEDED BY JUNE 21 COMMENTS	
4.8	Provide automated monitoring and alarming of the sewage pumping station and provide backup power to ensure that the sewage pumping station does not overflow into the nearest watercourse in the event of a loss of hydro or equipment failure.	16-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	TYLIN	SUPERCEDED BY JUNE 21 COMMENTS	
4.9	Grand River Conservation Authority (GRCA) staff has reviewed the above- noted application for Rezoning to facilitate the redevelopment of the Fergus Golf Course for a Plan of Subdivision and a Plan of Condominium, and has prepared the following comments on the Zoning By-law Amendment, Official Plan, Subdivision and Condominium applications. These comments update and replace our previously issued comments dated June 16th 2022.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	Noted.	n/a
4.10	GRCA has reviewed the information that has been provided to date, and has no objections to the proposed Official Plan amendment. The additional information that is requested below may impact the lot pattern and proposed zone provisions, therefore GRCA is requesting that the applications for the Plan of Condominium and Subdivision and their implementing Zoning By-law Amendment be deferred to allow the applicant an opportunity to address the comments.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	n/a	Comments are addressed below. We trust that they are sufficient for Draft Plan Approval.	n/a
4.11	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 regulatory authority under Ontario Regulation 150/06. GRCA has also	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North &	n/a	Noted.	n/a

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	provided comments as per our MOU with the County of Wellington and as a public body under the Planning Act as per our CA Board approved policies. The subject lands contain wetland features, and watercourses with associated adjacent areas.			South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca			
4.11.1	If available, the approved Terms of References for the study should also be included in the EIS appendices.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Beacon	A formal TOR has not been prepared; however, numerous studies have been undertaken and the methods have been provided in the EIS.	Carolyn Glass, Beacon Environmental <u>cglass@beaconenviro.</u> <u>com</u> 416-838-7967
4.11.2	It is indicated in the EIS that wetlands on site are unevaluated and not considered significant. Evaluation work using the OWES protocol to confirm status should be completed and presented as part of the EIS, or a clear rationale indicating how these wetlands are not significant should be provided. GRCA requests that field data sheets be included in the appendices of the EIS report. We request that the wetland units proposed for removal meet all of the requirements under Section 8.4.4 of the GRCA's Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation document.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Beacon	The wetlands on the subject property are relatively low functioning and are approximately 900 m from the closest provincially significant wetlands. We note that those PSWs are part of the Provincial Growth Plan natural heritage system, whereas the subject property does not fall within these natural heritage system lands. Given the changes which are currently being proposed by the province to OWES, we will continue to discuss the status of the onsite wetlands with GRCA. Field sheets can be included in an updated EIS submission. It is noted that the wetlands proposed for removal and the wetland proposed for relocation/compensation meet the requirements under 8.4.4.	Carolyn Glass, Beacon Environmental cglass@beaconenviro. com 416-838-7967
4.11.3	Please provide justification for using a 10 m buffer for the retained wetland unit. Additionally, please indicate whether the planned trail or other development components will remain completely outside of this buffer, and if any additional mitigations are planned for the buffer (e.g. enhancement plantings within the 10 m buffer).	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource PlanningBen Kissner519-621-2763 x2237bkissner@grandri ver.ca	Beacon	Currently, the edge of the wetlands, and in some cases the wetlands themselves are regularly manicured and disturbed as part of ongoing golf course use. Under the proposed development, the 10 m buffer will be densely planted and will serve to buffer the wetlands from the adjacent development. While a 10 m buffer has been applied, and will be free of encumbrances, there is effectively a	Carolyn Glass, Beacon Environmental <u>cglass@beaconenviro.</u> <u>com</u> 416-838-7967

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						much larger buffer applied to the central wetland features as there are retained woodlands and open space and restoration area and a naturalized SWM plan proposed as adjacent uses.	
4.11.4	Please add more detailed discussion on the potential impacts that the predicted post-development changes to the water balance in the study area may have on the wetland.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Beacon/Burnsi de	The distributed infiltration proposed for the redevelopment will mitigate some of the impacts of the water balance. There is ongoing analysis of the proposed stormwater management plan including potential LIDs (e.g., distributed infiltration) and how they can help to mitigate the water balance. These changes will be implemented to ensure wetland hydrology is maintained.	Carolyn Glass, Beacon Environmental cglass@beaconenviro. com 416-838-7967 Steven Roorda, R.J. Burnside <u>steven.roorda</u> @rjburnside.com (226)-486-1548
4.11.5	The proposed enclosure the Black Drain in a culvert may impact fish habitat or be contributory to fish habitat. The EIS should address this issue, and examine if the proposed works would meet the GRCA policy 9.1.2.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Beacon/Burnsi de	Suggested an open bottom culvert, or other "fish friendly" design features, including appropriate substrate, and/or groundwater contribution. An open bottom culvert can be supported in this location. While this portion of drain has not been identified as direct fish habitat, the intent will be to maintain its contributing function.	Carolyn Glass, Beacon Environmental <u>cglass@beaconenviro.</u> <u>com</u> 416-838-7967 Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
4.11.6	Please also confirm that thermal mitigations will be employed for the release of storm water into the cold water Black Drain system.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Burnside	A bottom draw outlet and landscape feature with shade trees will be incorporated into the design. Additional measures being considered include the potential of the outflow from a foundation drain collector. Details will be provided during the detailed design phase. This will be captured as a Condition of Draft Plan Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
4.11.7	Ensure that DFO is consulted regarding potential impacts to fisheries.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner	Beacon	Noted. DFO will be consulted with respect to the development including the proposed culvert.	Carolyn Glass, Beacon Environmental <u>cglass@beaconenviro.</u> <u>com</u> 416-838-7967

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				519-621-2763 x2237 bkissner@grandriver.ca			
4.12	Water Balance: A decrease of 14% of infiltration is expected over the site. LID features will try to be incorporated during detailed design. Ground Water could be limiting factor with average depth 0.6. Please consider the Groundwater levels should be shown on Figure 8. Can be provided at the detailed design stage.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Beacon/Burnsi de	Groundwater levels will be shown on Figure 8 and will be provided at the Detailed Design Stage. In addition, the groundwater levels shown on Figure 8 will inform the proposed LID features during the detailed design stage, which could include additional roadside drainage features, bioswales, and individual lot infiltration galleries. This will be captured as a Condition of Draft Approval. LIDs will be included at detailed design stage, which could include additional roadside drainage features, bioswales, and individual lot infiltration galleries. These will all be subject to both specific groundwater and soils conditions	Carolyn Glass, Beacon Environmental <u>cglass@beaconenviro.</u> <u>com</u> 416-838-7967 Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
4.13	Further details for how major flows will enter SWM pond will need to be provided at the detailed design stage.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Burnside	During the Detailed Design Stage, the grading design will indicate the low point of the development at the entrance to the SWM facility. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
4.14	Please address the setbacks identified in the Centre Wellington Zoning By-law, section 4.12 Environmental Protection (Ep) Zone, Municipal Drain And Watercourse Setbacks; in particular the subsection 4.12.3 and/or 4.12.4.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Burnside GSP Group	The existing approvals on the subject land provide setbacks to the Municipal Drain that differ from the existing provisions within the Centre Wellington Zoning By-law. The Draft Zoning By-law Amendment for the subject lands has been revised to incorporate revised provisions to the setbacks proposed for Municipal Drains. A justification to support the revised Draft By-law Amendment is included with this Matrix. Furthermore, a request to abandon a	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548 Evan Wittmann, <u>GSP Group</u> <u>evanw@gspgroup.ca</u> (226)-243-7340

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						portion subject l request submitte Wellingt
4.15	We acknowledge the initial payment of \$33, 520, however the total review fee is calculated to be \$51, 292.25. The proponents will be invoiced for the remaining \$22, 177.25 associated with this review. Should you have any questions, please contact Ben Kissner at 519-621-2763 ext. 2237 or bkissner@grandriver.ca.	21-Jun-22	GRCA	Fred Natolochny, MCIP, RPP Supervisor of Resource Planning - North & South, Resource Planning Ben Kissner 519-621-2763 x2237 bkissner@grandriver.ca	Geranium	This is u be sent i Fergus D Geraniu 3190 Ste Markhar Include I <u>accounti</u> theyona
<u>5.0</u>	Enbridge					
	It is Enbridge Gas Inc.'s (formerly Untion Gas Ltd) request that as a condition of final approval that the owner/developer provide to Enbridge the necessary easements and/or agreements required by Enbridge for the provision of gas services for this project, in a form satisfactory to Enbridge.	10-May-22	Enbridge	Kelly Buchanan, Land Analyst 519-436-4673 ONTLands@enbridge.co m	Geranium	This wil Draft Ap easemen determi Design S Enbridge
<u>6.0</u>	Township of Centre Wellington - Wellington Source Water Protection					
Comment	ts related to Legal Requirements					
6.1	Due to the site's land use and location in a Wellhead Prootection Area D, (see further information), no Section 59 Notice under the Clean Water Act is required (see Fact Sheet 6) under the Planning Act or Ontario Building Code.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	n/a	Note.
6.2	For management of drinking water threat activities and other chemicals, waste, or fuels, a Drinking Water Threats Disclosure Report (TDR) and chemical management plan (CMP) are required under County of Wellington Official Plan 4.9.5.4. This report must address all Prescribed Drinking Water Threats and any other chemical, fuel (including generators), or waste storage listed in section 4.9.5 of the Official Plan. Please include all details as they pertain to the storage and handling of fuel for any temporary/backup/emergency generators in the TDR. Appendix A for the TDR guidance document. If you have any questions, please contact once of the undersigned, otherwise please submit the completed report digitally to the Planning Department. This report will be required as a condition of planning approval. Please review the remaining comments and incorporate responses into the TDR where appropriate or indicated.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	A DRAFT Disclosu Manage enclosed will cont Design S Source V is ongoir of the Re captured Approva
6.3	For any chemicals, waste, or fuel identified in the TDR as being stored or handled on site during construction, a chemical management plan must be submitted with the TDR. A chemical management plan outlines the storage	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236	WSP	This is ca This pro- complet

nse	Consultant Contact
n of the Black Drain within the clands is proposed and the t of abandonment was ted the Township of Centre gton on March 1, 2023.	
understood, the invoice should t issued to: Development Inc. c/o um teeles Avenue East, Suite 300 am, ON L3R 1G9	
e Emails: <u>ting@geranium.com</u> , asm@geranium.com	
ill be captured as a Condition of pproval. The appropriate ents and/or agreements will be nined through the Detailed Stage in consultation with ge.	
	n/a
T Drinking Water Threat ure Report (TDR) and Chemical ement Plan (CMP) has been ed. This process is ongoing and ntinue through the Detailed Stage. Coordination with the Water Protection department ing. The completion/approval Report and Plan will be ed as a Condition of Draft val.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
captured in the TDR and CMP. ocess is ongoing and etion/approval of the Report	Greg Padusenko, WSP gregory.padusenko@ wsp.com

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Respons
	requirements, handling requirements, spoll response plan and contractor/staff training.			dwalker@centrewelling ton.ca		and Plan Conditio
6.4	During future submissions, please confirm whether there will be fuel storage on site temporarily during construction, as indicated on the Source Water Screening Form. If liquid fuel storage over 250 litres will occur during construction, it is recommended that the applicant provide details on temporary fuel usage (quantity anticipated on site and a liquid fuel handling/storage and spill response procedure) during future submissions and that the Township make the spill response procedure a condition of the site plan agreement.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	This is ca This proo completi and Plan Conditio
6.5	A salt management plan is required for the property, in particular any private roads, parking lots or multi-residential properties, and must be submitted as part of the threats disclosure report and included in the chemical management plan. The salt management plan should include best management practices (BMPs) for the application and storage of road salt, as well as the storage of snow. At a minimum, the goal should be to minimize salt usage through alternative measures and the use of trained individual in the application of road salt. If needed, this can be discussed further with the applicant and examples provided. Snow storage should be located in a way that prevents runoff into the parking lot. This should preferably be close to, but not on top of, a catch basin grate. Please ensure that the snow pile does not obstruct any infrastrucutre associated with any stormwater management facility. Please ensure that the snow storage is clearly marked on furture submissions.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	A Salt Ma in accorc County s
6.6	Regarding on site stormwater management, the submitted reports from Golder discuss LID measures and indicate that roof run off from the individual lots will be directed to previous surfaces for infiltration, which is our preference. Please indicate in future submissions if the Sotrmwater Management Pond will have an impermeable pond liner, thus preventing salt laden run off from infiltrating back into the ground.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	This is ca This proc completi and Plan Conditio
6.7	It is understood that the applicant and Township may be discussing Municipal Responsibility Agreement as it pertains to this development. It is recommended that further discussion occur regarding whether reserve funds should be allocated for the future development of wellhead protection areas and the associated Assessment Report mapping if the municipality were to become responsible for this water system in the future. If, through further discussion, it is decided that reserve funds should be allocated then the application should provide a cost estimate to complete the necessary hydrogeological assessment and modelling and preparation of a final report and required data and mapping to be used by the Township and Grand River Conservation Authority to complete a Section 34 update of the Grand River Assessment Report and Source Protection Plan.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	Burnside/Gera nium	Discussic regarding Agreeme througho This will Draft Ap

nse	Consultant Contact
an will be captured as a ion of Draft Approval.	519-502-7847
captured in the TDR and CMP. ocess is ongoing and etion/approval of the Report an will be captured as a ion of Draft Approval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
Management plan is prepared rdance with Township and standards and enclosed.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
captured in the TDR and CMP. ocess is ongoing, and etion/approval of the Report an will be captured as a ion of Draft Approval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
sions with the Township ing a Municipal Responsibility nent will be ongoing hout the development process. Il be captured as a Condition of pproval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Respons
6.8	Updates to the Grand River Source Protection Plan (SPP) came into effect of February 18, 2022. These updates pertain to applications for properties within the WHPA-Q, which now have legally binding Clean Water Act requirements related to the management of the reduction of groundwater recharge. The applicable transition policy, WC-CW-1.2, states that complete applications under the Planning Act or Condominium Act submitted prior to the date the SPP took effect, would be considered existing and be exempt from the new Clean Water Act requirements. However, since no planning application was submitted prior to the February 18, 2022 effective date, the mentioned requirements will apply going forward.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		Noted.
6.8.1	The policies that are applicable to this proposal are as follows:Policy WC-MC-22.10 states that the Township shall be involved in the approval process for Permits to Take Water for new developments within a WHPA-Q:To ensure that any Consumptive Water Taking never becomes a significant drinking water threat, where this activity would be a significant drinking water threat as prescribed by the CWA, Municipalities, when reviewing planning applications for New development requiring a new or amended PTTW for groundwater taking within a WHPA-Q, shall consult with the MECP to discuss any necessary approval conditions of the PTTW. Municipalities shall consider the use of holding zone provisions or a community planning permit in order to ensure that a PTTW, if required, is in		Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		Discussio complete the PTTV design a conditio
6.8.2	community planning permit in order to ensure that a PTTW, if required, is in place prior to the commencement of any development activity.Policy WC-MC-22.2 discusses the MECP's responsibility in ensuring that any Municipal Supply will not be adversely impacted when issuing future PTTW's. This is achieved by the consideration of study results, data, and establishing approval conditions in PTTW's:To ensure that any Consumptive Water Taking never becomes a significant drinking water threat, where this activity would be a significant drinking water threat as prescribed by the CWA, the MECP shall issue PTTWs and/or Drinking Water Works Permits which ensure that the Municipal Supply will not be adversely impacted. To achieve this, the MECP,		Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator519-846- 9691 x236dwalker@centrewe Ilington.ca	WSP	Noted.

nse	Consultant Contact
	n/a
tions with the MECP will be eted at the time of applying for FW as part of the detailed and can be captured as a on of draft plan approval.	n/a
	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Respons
	 The MECP, where appropriate, shall consider establishing approval conditions in PTTWs and Drinking Water Works Permits to achieve this objective including but not limited to conditions which require: a. groundwater and surface water monitoring related to municipal drinking water supplies; b. assessment of demand management: water needs assessment (review of permitted maximum takings) and water efficiency measures; c. a phased approach to assess impacts; d. information sharing with the MECP, County, Municipalities and conservation authorities including a condition of approval for permit holders to provide Municipalities and conservation authorities and conservation of the PTTW (as per bullet a.) above); e. measures to increase the optimization of the municipal water supply system where appropriate; and f. drought management planning for drought sensitive wells/systems 	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	Noted.
6.8.3	 Policy WC-MC-23.2 discusses the maintenance of groundwater recharge functions in relation to ECA's for Stormwater Management Facilities and/or Sewage Works: To ensure that any Recharge Reducing Activity never becomes a significant drinking water threat, where this activity would be a significant drinking water threat as prescribed by the CWA, the MECP should, during any pre-submission consultation for Environmental Compliance Approvals for Stormwater Management Facilities and/or Sewage Works, encourage design and implementation measures for the maintenance of groundwater recharge functions including but not limited to the LID, minimizing impervious surfaces and lot level infiltration. The MECP shall issue Environmental Compliance Approvals for Stormwater recharge considerations. In addition, the MECP, where appropriate, shall consider incorporating conditions in the Environmental Compliance Approvals to address the proper functioning of groundwater recharge measures including, but not limited to, conditions requiring or related to operations, inspection and maintenance of the Stormwater Management Facilities and/or Sewage Works, groundwater or surface water monitoring related to groundwater recharge, and documentation including manuals and maintenance records. 	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	Burnside	Noted. T process f Facilities detailed incorpor ECA.

se	Consultant Contact
	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
This policy is related to the ECA s for Stormwater Management es, which will be part of the d design process and can be brated as a condition of the	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Response	Consultant Contact
6.8.4	 Given that the proposed expansion meets the 'major development' definition outlined in the Grand River SPP, policy WC-MC-23.5 will apply. This policy states that for all applications facilitating Major Development for residential, commercial, industrial, and institutional uses, a water balance assessment is required which shall address the following requirements: a. maintain pre-development recharge to the greatest extent feasible through best management practices such as LID, minimizing impervious surfaces, and lot level infiltration; b. where pre-development recharge cannot be maintained on site, implement and maximize off-site recharge enhancement (within the same WHPA-Q) to compensate for any predicted loss of recharge from the development; and c. within a WHPA-Q in a Chloride, Sodium or Nitrate ICA, the water balance assessment must consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected including consideration of how water quality will be protected from application and storage of winter maintenance materials including Salt. 	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		Noted and a water balance analysis has been included as part of the hydrogeological report. In addition, it is noted that the site is not located within a Chloride, Sodium or Nitrate ICA.	n/a
6.8.5	In addition to the policies noted above, Policy 22.9 also applies as it stipulates a requirement to submit a Threats Disclosure Report and Hydrogeological Impact Assessment. See attached Grand River SPP for full policy text. We, in support with the Township Hydrogeologist, recommend that the specific requirements regarding maintaining pre-development recharge outlined in the policies should be discussed in future submission with the goal of achieving no net loss of groundwater recharge post development. Please indicate in the TDR how these policies, along with other applicable policies, will be addressed and implemented. It is noted that two reports have been submitted that may satisfy the requirements of the Hydrogeological Impact Assessment and water balance assessment in the policies. In the response, the applicant should indicate whether these reports do or do not satisfy the requirements for review by the Township.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	This will be addressed through the Detailed Design Stage. The TDR addresses the above policies and how they will be implemented. This process is ongoing, and completion/approval of the Report and Plan will be captured as a Condition of Draft Approval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
6.9	Regarding Provincial Instruments, the applicant should please clearly identify in the TDR any Permits to Take Water (PTTW), Environmental Compliance Approvals (ECA), and Environmental Activity and Sector Registrations (EASRs) that will be required for the proposal and provide any necessary technical details or refer to the technical details provided in either the Hydrogeological Study and/or the Stormwater Management Brief/Report. It is understood that an ECA for sewage as well as a PTTW will be required for this property. Please discuss each in future submissions. Regarding the PTTW, please ensure that fire flows are considered and accounted for.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	WSP	This is captured in the TDR. This process is ongoing and completion/approval of the Report and Plan will be captured as a Condition of Draft Approval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Response	Consultant Contact
6.10	Any preferential pathways (transport pathways) existing or created must be reported to the Source Protection Authority by the Township. These include, but are not limited to: a. old and/or unused wells that have not been properly abandoned b. new vertical geothermal systems c. underground infrastructure (parking garages, maintenance tunnels etc.) d. removal of large portions of overburden (gravel pits, fill removal) e. construction of deep pilings Please outline in the TDR if any transport pathways are proposed.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator519-846- 9691 x236dwalker@centrewe Ilington.ca	WSP	This is captured in the TDR and CMP. This process is ongoing and completion/approval of the Report and Plan will be captured as a Condition of Draft Approval.	Greg Padusenko, WSP gregory.padusenko@ wsp.com 519-502-7847
Comme	nts related to Non-Legal Binding Recommendations						
6.11	We have concerns regarding the proximity of the wells to the septic leaching beds, as proposed. Given the proximity, there is an increased risk of a contaminant, either microbial and/ or chemical, entering the aquifer by way of a transport pathway or by the infrastructure associated with both the leaching beds and wells. With this development being privately serviced, it is likely that many homeowners will use a water softener in their home. Due to the increased sodium and chloride levels in groundwater in Southwestern Ontario, it is imperative that new developments are designed to ensure that salt laden water is not infiltrating into the ground. The Ministry of the Environment, Climate Change, and Parks set out a 'Best Management Practice' guide and this site's proposed design appears to run contrary to it. The practices discussed in the guide are a proactive approach to protecting sources of drinking water. While we acknowledge that these practices are voluntary, we strongly recommend they be followed and such, an alternate design, or location, be proposed for the septic leaching beds to minimize the risk of aquifer contamination. Please see the Best Management Practice guide here: https://www.ontario.ca/document/best-practices-source-water- protection. It is strongly recommended that the applicant demonstrate how they will meet the Province's Best Practice guide in the TDR for this aspect and all aspects of this development.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		An updated design proposal for the on-site wastewater solution has been submitted to the Township for review which includes treating the wastewater to a highly treated effluent that will be used for spray irrigation of the existing golf course. The updated solution will not require beds for the dispersal of treated effluent. Instead, the proposed solution will utilize existing irrigation ponds and the existing golf course for reuse of the treated water. Irrigation volumes for the golf course have been analyzed, as well as storage capacity with the existing ponds to confirm that the volumes of treated water are within the normal range of irrigation water used on an annual basis. An updated FSR inclusive of the technical memo submitted to the MECP has been enclosed with this matrix.	Anne Egan
6.12	Please confirm that the site data (lot, building, asphalt, concrete, and landscaped percentages) is included in future submissions. This information is important to review with regards to recharge to the aquifer.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		The site data will be provided through the Detailed Design Stage. This will be captured as a Condition of Draft Approval.	
6.13	We have reviewed the memorandum provided by the Townships Hydrogeologist, Banks Groundwater Engineering Limited, dated June 9, 2022, and are in support of the comments and considerations provided.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	n/a	Noted.	n/a

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6.14	 The subject property is located in: a. a Wellhead Protection Area D, 25 year time-of-travel, with a low vulnerability score of 2; b. a Significant Groundwater Recharge Area (SGRA); and c. a Wellhead Protection Area Q (WHPA-Q) with a significant risk level. Attachments show the relevant mapping. Please note the subject property is not located in a Highly Vulnerable Aquifer (HVA) or an Issue Contributing Area (ICA). 	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca	n/a	Noted.	n/a
6.15	It is requested that the applicant provide written responses to all the above comments during the next submission.	30-Jun-22	Township of Centre Wellington (Source Water Protection)	Danielle Walker, Source Protection Coordinator 519-846-9691 x236 dwalker@centrewelling ton.ca		Noted.	n/a
7.0	Engineering Comments						
	Design Comments regarding the project						
	1.1 Refer to attached Traffic Impact Study comments. These are to be addressed.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	BA Group	The following comments have been addressed in BA Group's updated traffic report. Responses are below in regard to Triton Engineering comments.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
7.1	1.2 Confirm if the intent is to remove the current Fergus Golf Club entrance to the north property.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	BA Group	Through the approval process, the existing golf club entrance on the west side of Wellington 19 has been removed. A new access is proposed to align with the new access to the proposed site to create a 4-legged intersection.	
	1.3 Functional Servicing Report and Servicing Report are to be consistent. Comments related to water supply/distribution are provided as part of TMIG Servicing Report, FSR should reference the Servicing Report.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	An updated FSR has been enclosed which addresses the comments from the TYLIN servicing report.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.4 The proposed development is within a GRCA Regulation Limit. Therefore, a permit will be required. This, and any comments received by the GRCA are to be provided for Township record.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	N/A	Noted.	n/a

ł	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Response	Consultant Contact
	 1.5 Comments regarding the ROW: a. ROW is to be a minimum 18m wide. b. Sidewalks to be provided on one side of the ROW. If these are curb backed, they will need to be 1.8m wide. c. Confirmation from Hydro provider the proposed placement of transformers. In our experience, they do not permit them above the Joint Utility Trench. Transformer easement detail is to be provided if applicable; d. Indicate required cover for all services. This is to be a minimum 2.0m for watermains and forcemains, and a minimum sanitary sewer cover of 2.4m above obvert. The obvert shall be a minimum of 1.2m below the final road grade for storm sewers, including catchbasin leads; e. Include hydrant valve; f. Include Street Tree placement. 	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The proposed redevelopment is a Common Elements Condominium, with private laneways. These private laneways have capacity to appropriately house all servicing infrastructure. Details and cross- sections with the locations of all infrastructure including storm, sanitary and water services, as well as, valves, street trees, Hydro lines, transformers has been included in the appendix of the FSR. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.6 Sewage Pumping Station (SPS) detailed drawings and report is to be provided. Note: The need for an emergency storage chamber or if emergency overflow to the environment will be permitted will need to be confirmed by the MECP and GRCA. As part preliminary design, it is recommended that a design review meeting be arranged with the Township to discuss the expectations regarding the SPS configuration and design detail/criteria. Contact the Township to request a meeting when appropriate.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	TYLIN	A detailed design and report for the sewage pumping station design will be included as part of the detailed design. This will be captured as a condition of draft approval.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
	 1.7 Complete detailed Drawings of the proposed Development are to be provided; this includes but is not limited to: a. Overall Servicing Plan(s) b. Plan and Profiles of all roads c. Overall Site Grading Plan(s) d. Sanitary, Storm and Foundation Drain Collection System Sewer & Catchment Plans e. SWM facility f. Details & Typical Section Plan(s) 	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	Detailed drawings of the proposed development will be provided at the detailed design stage including the listed drawings provided. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.8 Detailed cross section is to be provided on Street B 0+550, just outside of the pumping station, where the forcemain and bypass storm sewer is located.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	A cross section will be provided at the Detailed Design Stage. The cross section on Street B, just outside the pumping station shows the 14.0m private road proposed for this area to accommodate the forcemain and bypass sewer. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.9 Confirm that existing house will retain its current water supply and sanitary treatment configuration	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The existing house on the South side of Wellington Road 19 will be demolished. The current water supply and sanitary treatment will be decommissioned. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548

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	1.10 Provide details regarding the proposed Foundation Drain Collection System. Will this be a gravity system and will it be a third pipe system or will it be pumped to the storm sewers?	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	A Foundation Drain Collection System is proposed to be a gravity, third pipe system. Additional details on the Foundation Drainage System and its proposed location will be provided in an updated Stormwater Management Report and Functional Servicing Report, that will be part of the Detailed Design Stage. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.11 Storm Services are to be provided as per Municipal Standards.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		The proposed storm services are provided as per Municipal Standards.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.12 Roof drainage is to be directed to infiltration trenches to promote groundwater recharge. Note: The infiltration of road run-off will not be permitted.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		The redevelopment proposes that roof drainage be directed to pervious surfaces and where groundwater elevations allow, to lot level infiltration galleries to improve overall site infiltration and water balance. No infiltration of road runoff is proposed.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.13 Connection of the 4m wide access road to the proposed roadway is to be provided. This is to be complete with the applicable gates as per the MSS.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		A connection from the 4m wide access road to the proposed roadway has been shown on Figure 7 in the updated Stormwater Management Report. Gates will be provided at the detailed design stage as per the MSS.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
Function	al Servicing Report Comments						
7.2	1.13 Provide details regarding how the water system will connect to the existing and proposed wells.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		An updated figure showing the watermain connection from the proposed well to the water treatment plant has been outlined in the figure that has been included with this matrix. Detailed drawings will be provided as part of the detailed design. The existing irrigation wells on the development parcel will be decommissioned as part of the development.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.14 Confirm how the corner lot between MH37A and MH53A will be serviced.					An updated servicing figure showing the sewer connecting to MH37A and MH53A, which clearly identifies how the corner lot has been serviced is included in the updated FSR.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548

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	1.15 Confirm the condition and suitability of the Black Drain up to its confluence with Irvine Creek.					There doesn't appear to be any physical barriers to Irvine Creek, however, our assessment in March (usually the highest flows) had minimal water and no fish were observed. Ability of fish to use the drain within the property boundary was limited, mostly due to flow, but also low-quality habitat. In August, the drain was dry. Only the portion thought the wetland/woodland has any substrate sorting or higher quality habitat. The sections through the golf course and adjacent to the field don't offer much in terms of cover or varied habitat opportunities. The proposed stormwater pond provides an improved scenario for stormwater management. The proposed SWM pond maintains the post development flows to slightly less than predevelopment flows which we understand will have no impact on the black drain downstream of our site.	Carolyn Glass, Beacon Environmental cglass@beaconenviro. com 416-838-7967 Steven Roorda, R.J. Burnside steven.roorda@rjburn side.com (226)-486-1548
7.3	General Comment The Burnside report outlines the background servicing assessments prepared for a residential development of 118 residential homesites on the South side of Wellington Road 19 in the Township of Centre Wellington. The report presents the projected wastewater loadings and characteristics of the community and proposed wastewater treatment and effluent dispersion systems. These systems are proposed to be constructed on the golf course lands to the north of Wellington Road 19. It is our understanding that the wastewater treatment and effluent dispersion systems will be owned, maintained, and operated by the developer or community condominium association as a condition of acceptance by the Township. The Township is a stakeholder in the success of this project by the fact that the development will exist within the municipal boundaries of Centre Wellington and as such must adhere to the legislated regulations, guidelines and laws of the Township.	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	N/A	Noted.	n/a

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7.4	Design Basis The report discusses the design flows for the fully developed community, the performance criteria and the developer's preferred treatment and effluent dispersion proposal. The detailed design will be subject to review by the various regulatory agencies and may be the subject of a Class Environmental Assessment (EA). We will leave any further discussion on the requirement for a Class EA to the proponent to address, although will comment that the Class EA review process is recommended in any event. This will allow the developer to arrive at a preferred strategy that satisfies the natural, environmental, socio and economic benefits accruing to the development, the Township, and other key stakeholders. The subject report does not include a screening process to demonstrate how the proponent arrived at the proposed wastewater management preferred selection.	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	Burnside	An updated design for the wastewater solution has been proposed. The updated solution will not require septic beds for the dispersal of treated effluent. Instead, the proposed solution will treat the effluent to a higher quality and utilize existing irrigation ponds and the existing golf course for reuse of the treated water. An updated FSR has been enclosed which outlines the proposed wastewater solution including the technical memo submission to the MECP and responses to preliminary comments received from MECP in January 2023. Further to our meeting on January 26, 2023, A Schedule C Class EA is being initiated and the evaluation of the proposed wastewater solution will be outlined through the EA process. The first PIC is scheduled for June 1, 2023.	Anne Egan, R.J. Burnside <u>Anne.Egan@rjburnsid</u> <u>e.com</u> 905-821-5888
7.5	Sanitary Collection and Conveyance The sanitary collection and conveyance system is reported to be designed by others. The submissions on this system should be assessed with the remainder of the wastewater systems and developed to mitigate any operational issues with odours and sediment and sludge generated by low flows. These types of issues can be addressed in Standard Operating Procedures. (SOP's) and system design.	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	Burnside	The sanitary collection and conveyance system design will follow the appropriate Township design standards and guidelines. The details of this design will be provided at the Detailed Design Stage. This will be captured as a Condition of Draft Approval.	Anne Egan, R.J. Burnside <u>Anne.Egan@rjburnsid</u> <u>e.com</u> 905-821-5888
7.6	Proposed Treatment System The discussion of the Proposed Treatment System outlines the proposed treatment system as primary settling tanks followed by necessary aerobic and anoxic treatment processes to provide removal of organics and nitrogen. The proponent has indicated that, "The specific type of treatment technology/system would be confirmed during detailed design and through consultation with MECP". Our review comments are limited to the observation that the technical proposal seems reasonable subject to regulatory review. Some comment on residuals management would be appropriate in the proponent's report .	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	Burnside	An updated design for the wastewater solution has been proposed. The updated solution will not require septic beds for the dispersal of treated effluent. Instead, the proposed solution will utilize existing irrigation ponds and the existing golf course for reuse of the treated water. An updated FSR is enclosed which outlines the proposed wastewater solution including the technical memo submission to the MECP and responses to preliminary comments received from MECP in January 2023. The specific design proposed treatment system will need to include all processes and equipment required	Anne Egan, R.J. Burnside <u>Anne.Egan@rjburnsid</u> <u>e.com</u> 905-821-5888

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						to meet the effluent criteria in accordance with MECP requirements. Residuals management will depend on the technology that is selected for the treatment plant. At this time, the preliminary design proposes to use the Waterloo Biofilter technology. This technology consists of a synthetic foam media trickling filter which does not generate aerobic sludge as part of the biological treatment process. The primary settling tanks will provide settling and storage for sludge and scum prior to the biofilter treatment process. Sludge and scum accumulation in the primary treatment tanks would need be monitored by the treatment system operator and removed as required. The typical method would be to have the sludge and scum removed by a licensed sewage hauler, for disposal at an approved disposal facility. The primary tanks would be sized to provide some sludge storage capacity and the anticipated sludge removal frequency would be every three to five years or as needed. This information will be included in the updated FSR.	
7.7	Proposed Disperal Beds At a high level, we do not see any issues with the dispersal bed proposal. We believe there should be a discussion on the management of a balanced distribution of the treated effluent to the dispersion beds. We also recommend a discussion of operations and maintenance of the beds with anticipated scheduled maintenance.	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	Burnside	An updated design proposal for the wastewater solution has been proposed. The updated solution will not require septic beds for the dispersal of treated effluent. Instead, the proposed solution will treat the effluent to a higher quality and utilize existing irrigation ponds and the existing golf course for reuse of the treated water. An updated FSR is enclosed with this matrix and outlines the proposed wastewater solution including a technical memo that was submitted to the MECP and responses to preliminary comments received from MECP in January 2023. The updated FSR also includes a contingency plan that demonstrates the system can function without	Anne Egan, R.J. Burnside <u>Anne.Egan@rjburnsid</u> <u>e.com</u> 905-821-5888

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						adverse impact to the environment in the event of an emergency. Based on our evaluation, the updated design provides a solution that functions more efficiently from a maintenance and operations perspective. It also provides a solution that requires less disturbance for the existing golf course operations. Treating the effluent to a higher quality and lining of the irrigation ponds will ensure minimal interference with the proposed water supply and reduce the water taking previously required to fill the irrigation ponds.	
7.8	 Ownership, Operation, Maintenance, Risk Management We understand that the wastewater treatment and effluent management system, for the community of 118 homesites, will be constructed by the developer and eventually transferred as a fully operating system to the Community's Condominium Association. The Association will own, operate, maintain, and be responsible for all risk management and control of the facilities under the terms and conditions of the Facility Environmental Compliance Approval (ECA). The Township will have no responsibility for ownership, operations, maintenance, and replacement.Nevertheless, it is in the Township's interests, as a stakeholder, to secure an agreement from the developer, which will be binding on all future parties to whom the ownership, operations, maintenance, and replacement that, in the event of a financial collapse of the developer or the managing condominium association, or a failure of the treatment system occurring resulting in a public or environmental nuisance, will allow the Township to take over temporary or permanent operation of the wastewater treatment system to allow continued service to the proposed community. We understand agreements used as this are normal for the Township due to the rural nature of your community and the various forms of residential, recreational, and commercial developments. A condominium reserve study that identifies, amongst its total asset management strategies, the wastewater treatment and effluent dispersion systems. A 100% performance bond on the wastewater treatment and effluent dispersion system. This security will be identified in the Condominium Association for the wastewater. The township is required to address the resolution of unsatisfactory or clear lack of performance of the wastewater treatment and effluent dispersion system. This security will be identified in the Condominium Associations Reserve Study. The duration and terms of the bond should be 	01-Dec-22	Township of Centre Wellington (Jacobs)	Colin Baker	Geranium	We agree with the principal of a Responsibility Agreement with the Township, discussion regarding the details the Agreement will be ongoing through the approvals process. This will be captured as a Condition of Draft Approval.	

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	developed in consultation with your treasurer, your solicitor, and the developer. Summary :Jacobs has reviewed the conceptual design report for wastewater servicing of the Proposed development of 118 homesites on the south portion of the Fergus Golf Course in the Township of Centre Wellington. As a conceptual report the proposed treatment and effluent dispersion system is reasonable and subject to development of a detailed design and development of a treatment and dispersion ECA from the MECP, the Township should be able to proceed to negotiate a Municipality Responsibility Agreement with the proponent, subject to terms and conditions as outlined herein, or as otherwise required by the Township.						
Stormwa	ter Management Comments						
7.3	1.2 Confirm that the SWM facility will have free discharge to the Black Drain under the various events considered. Elevations to be reflected on the SWMF Cross-Section.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The stormwater management facility has been designed to have free discharge to the Black Drain based on the Black Drain elevations modelled as part of this analysis. The anticipated High water level elevation within the Black Drain has been added to the updated SWMF Cross Section drawing.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.3 Erosion and Sediment Control is to assess the potential need for dewatering.	17-Jun-22		Colin Baker	Burnside	Dewatering requirements will be confirmed by the hydrogeologist during detailed design once a servicing design has been confirmed. This will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548

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	 1.4 Additional detailed information (i.e., existing and proposed grading) is to be provided where DICB and HW's are proposed to collect external area ditch run-off. 1.5 Confirm if Catchment 102 enters Node 2 and update Table 1 and modelling accordingly. 	17-Jun-22	Township of Centre Wellington (Triton	Colin Baker	Burnside	Additional detail has been provided on drawings G1-G3 with regards to the ditch regrading and the structures collecting these external ditch flows, which has been enclosed within appendix of the FSR.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
		17-Jun-22	Engineering Services Limited)	Colin Baker	Burnside	Node 2 is located on the Black Drain prior to it entering the wetland, Therefore Catchment 102 does not enter Node 2, it enters downstream of Node 2. Figures 4 & 5 have been revised to clarify this location.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.6 Table 3 of the SWM Report should be reflecting pre and post development flows for EXT1 since development is proposed in this catchment.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	Although Catchment EXT1 will see some minor development in the form of a new entrance, the catchment has been modelled in SWMHYMO as a Nashyd since it is a rural area, therefore this minor increase in impervious area that will drain to a pervious surface within the catchment area does not require the modelling parameters within a Nashyd command to be revised.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.7 Provide Outlet Structure details, orifices/ weirs, overflow weir, forebay weir, access details into wet cell and forebay (turfstone, cablemat, etc.), etc.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The pond overflow weir and forebay weir have been shown in greater detail on the SWM Pond Figure, which is included with this matrix. However, details regarding specific orifice and weir sizing and erosion protection such as turfstone or cablemat will be provided at detailed design and will be captured as a Condition of Draft Approval.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.8 ROW imperviousness for Catchments 201 and 202 is to be updated to account for sidewalks.	17-Jun-22	Township of Centre	Colin Baker	Burnside	Sidewalks are not proposed as part of this development therefore the imperviousness for Catchments 101 and 102 have not been revised.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
	1.9 SWMF1 Storage Calculation Sheet is to be expanded to include stage- storage-discharge, and details regarding the orifices/weir sizing, overflow weir, inverts, drawdown times, pond water levels for each event, etc.	17-Jun-22	Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The storage calculation sheet provides pond discharge and pond water levels for each event, however details regarding specific orifice and weir sizing will be provided at detailed design. This will be captured as a Condition of Draft Approval	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548

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1.10 It is noted that Street 'B' at ~0+500 is used as an overland flow route for a large west portion of Catchment 201. If the curb were to overflow, it would spill directly into the wetland/creek. The sewer and roadway for this section combined is to be designed for the 100-year storm, or, if it does not have capacity, then it is to be modelled accordingly. Low points are to be taken into account. A C/L low point of 429.23 at 0+468 is 0.15m lower than the C/L 429.38 at 0+498.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	Two cross sections have been provided on Street B (now referred to as Street A), just outside the pumping station showing the proposed 14.0 right-of-way proposed including the grading for the area. This has been included as part of the updated FSR. The overland flow conveyance has been calculated to confirm that the storm sewer and roadway can convey the 100-year storm to the SWM pond without spilling to the wetland/creek.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
1.11 Ensure scales displayed on drawings are calibrated to the sheets.	17-Jun-22		Colin Baker	Burnside	Noted.	
1.12 Ensure overland flow route on Street 'E' at ~0+160 has capacity and does not spill into the wetland. The sewer and roadway for this section combined is to be designed for the 100-year storm, or, if it does not have capacity, then it is to be modelled accordingly.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The overland flow conveyance on Street E (now referred to as Street D) has been reviewed and the cross section can adequately convey the 100-year storm to the SWM pond without spilling to the wetland/creek. Overland flow calculations have been included in the updated Stormwater Management Report, dated December 2022. This area includes road slopes at 0.5% and is near the top end of the system which reduces the amount of overland flow passing through this area.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
1.13 A portion of the Lots east of Street 'C' at 0+420 appear to be flowing overland into the wetland as opposed to being captured in Catchment 201.	17-Jun-22		Colin Baker	Burnside	This portion of lots will be collected by a side yard swale that will run along the top side of the retaining wall. These flows will be directed to the ROW and will not release uncontrolled into the wetland. The grading drawings have been updated to emphasize this and included with this matrix.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjbur</u> <u>side.com</u> (226)-486-1548
1.14 Provide more details regarding how uncontrolled area being conveyed to the roadway ditches will be outfitted with an OGS, as noted within the SWM Report.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	Burnside	The SWM Report notes that uncontrolled Catchment 202 will be connected to an oil-grit separator prior to discharging to the Black Drain. This area will be captured in storm sewers, therefore, prior to the flows discharging they will be routed through an OGS and/or an LID feature to provide adequate quality control. The details of these measures will be provided at detailed design and	Steven Roorda, R.J. Burnside <u>steven.roorda@rjbur</u> <u>side.com</u> (226)-486-1548

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						captured as a Condition of Draft Approval.	
	1.15 On the Post Development Drainage Plan, include additional drainage arrow, culverts, and bypass sewers/inlets.	17-Jun-22	-	Colin Baker	Burnside	The post-development drainage figure has been updated to include additional drainage arrows, culverts and bypass sewers/inlets. This has been included along with this matrix.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548
Servicing	g Study Comments						
	1.16 Provide additional details on how the required fire flow was determined.	17-Jun-22		Colin Baker	TYLIN	The fire flow was calculated using Fire Underwriter Survey (FUS). The FUS calculation has been included in the updated servicing study which is enclosed.	lan Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
	1.17 The need for 200mm watermain throughout the entire development is to be justified with modelling. It is our expectation this be reduced to 150mm to avoid water quality issues under low demand conditions.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	TYLIN	Hydraulic Modeling was completed using InfoWater. The 200 mm watermain is required to provide max day demands plus fire flows with the levels of serviced identified in accordance with the MECP design guidelines. A re-circulation line (~ 100 mm) is being considered at the southernmost end of the development to provide circulation and reduce water quality issues during low water demands.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
7.4	1.18 Confirm how pressure and flow is supplied to the system. Is the intent to construct a water tower or will this be a pumped system? The current modelling reflects that of a system pressurized by a water tower, however if it is pumped, the expected pump curve (head-discharge-efficiency) are to be provided and modelled accordingly. If sufficient Fire Flow is not available, alternative methods of water supply for fire fighting should be considered (i.e., in house sprinkler systems, off-line reservoirs, etc.).	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	TYLIN	The water supply system will be a pumped system to provide Max Day Demand + Fire Flows. Pump selection will be completed at pre-design phase with updated hydraulic modelling. The system is designed to provide fire flow and storage in accordance with the MECP design guidelines and a level of service (pressures) noted within the FSR.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
	1.19 The expected forcemain flow velocity to be confirmed as part of the SPS Design Report submission.	17-Jun-22		Colin Baker	TYLIN	The forcemain flow velocity will follow MECP design guidelines (0.6 m/s to 2.0 m/s).	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> om
	1.20 Reference to the "Fergus WWTF" within Section 5.3 of the Servicing Study is to be revised. The current design does not indicate connection to the Fergus WWTF which is located within the Community of Fergus.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker	TYLIN	Reference will be updated to Fergus Golf Course WWTF.	Ian Parkinson, TYlin International ian.parkinson@tylin.c om

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	1.21 Complete an updated FM vertical alignment based on more detailed grading information.	17-Jun-22		Colin Baker	TYLIN	This vertical alignment will be completed at the detailed design stage and captured as a Condition of Draft Approval.	Ian Parkinson, TYlin International ian.parkinson@tylin.c om
Transp	ortation Study Comments						
	2.1 Area Road Network – Wellington Road 19 extends to Highway 6 in Fergus, not Robinson Road as described. Third Line is under the jurisdiction of the Township of Centre Wellington.	17-Jun-22		Colin Baker		The figures have been adjusted in the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	3.1 Existing Traffic Volumes - Traffic counts were carried out for the study on March 2, 2021. This fell within the period that traffic volumes were affected to some extent by Covid 19 restrictions. No analysis was done to verify the counts. We compared the counts to 24 hour automatic counts taken in May 2018 by the County of Wellington on WR19 just west of the site. The County data shows volumes approximately 25 percent higher than in the report. Therefore, the Existing Traffic Data appears to be underrepresented, and should be corrected for Covid impacts. It would also have been preferable for the counts to have been taken during later spring or early fall, when existing golf course traffic would have been included (although estimated golf club traffic was accounted for later in the report). This would also have provided a more realistic estimate since activity related to Belwood Lake facilities would also account for more traffic during these periods.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		Subsequent traffic counts were collected in May 2022 and July 2022, and the July count was found to be the highest overall during the weekday and weekend peak hours. These counts were adopted as the basis for the updated analysis. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
7.5	3.3 Site Traffic Volumes – As noted above, traffic from the existing golf course has been estimated from ITE data, but it would have been better to schedule the traffic counts to capture actual golf course traffic. Site Traffic Distribution was based on existing distribution. The distribution should also have considered likely origin and destination. In our opinion, a larger distribution of site traffic to and from the closest urban centre of Fergus could be anticipated.	17-Jun-22		Colin Baker		The ITE rates used are considered to generate a conservative estimate of golf course traffic, and no traffic is removed from the network to account for the removal of uses on the south parcel. The trip distribution has been updated to reflect the updated base traffic counts. The largest share of trips is associated with the southwest direction along Wellington Road 19. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	4.4 Capacity Analysis Results – The analysis shows no Level of Service concerns. However, the analysis should be revised for updated Existing Traffic Volumes as outlined above. A level of service analysis should be carried out for a single access to WR19, to show whether it would operate satisfactorily.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		Accesses on Wellington Road 19 have been consolidated as per the updated site plan, and the traffic analysis results have been updated to reflect this single access with the updated base existing volumes. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149

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	6.0 Sight Distance Evaluation – The Report indicated that due to COVID, the sight distance calculations were carried out using aerial photos. It is not clear how COVID prevented the field measurement of sight distances. Given the crucial nature of these measurements and assessments, field measurements are required. Based on their aerial analysis, BA Group report that the required TAC sight distance requirements are met. However, both proposed accesses are located in or adjacent to horizontal curves. To the extent practical, entrances should be located to provide the best available sight distance. For the northerly (easterly) entrance the existing Steel Beam Guiderail at the pedestrian underpass may interfere with sight lines. This needs to be taken into account in the field measurements and analysis.	17-Jun-22		Colin Baker		As per BA Group's November 11, 2022 email to Howard Wray at Triton Engineering, it was confirmed that both the vertical and horizontal profile data obtained from surveys were also used to confirm the sight distance. In a November 14, 2022 response from Triton, it was confirmed that this methodology was acceptable provided it was based on a suitable number of elevation points. As per Triton's request the profile has been included in the appendix of the updated traffic report. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	1.6 6.2 3 Line – The Report identifies that there is no vertical curvature on Third Line that would affect sight distance. No photos were provided to verify this statement. These sight distances should be field measured as well.	17-Jun-22		Colin Baker		An assessment, inclusive of a vertical profile has been included in the updated traffic impact study. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	7.0 Evaluation for Left Turn Lanes on WR19 – The evaluation showed that left turn lanes are not warranted on WR19 using the MTO calculation. The calculations should be reviewed when the Existing Traffic is adjusted, and should also be carried out for a single access to WR19.	17-Jun-22		Colin Baker		The left turn evaluation has been adjusted to reflect the new counts and the consolidation of accesses on Wellington Road 19. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	1.8 The Report does not adequately address the number and location of accesses to WR19. In accordance with County policy, access to County Roads should be limited, with sole access to adjacent local roads where available. The Report does not demonstrate that 2 accesses to WR19 are required. The southerly (westerly) access is within a horizontal curve, and is not well situated. The northerly (easterly) access needs a more thorough sight distance analysis. The preferred access location would be on the tangent more equidistance between the horizontal curves, but it is also preferable to have the access directly across from the Golf Course access on the north side. In this regard, the proposed location may be acceptable pending further sight distance review.	17-Jun-22	Township of Centre Wellington (Triton Engineering Services Limited)	Colin Baker		Accesses on Wellington Road 19 have been consolidated to one, directly across from the new golf course entrance. All analyses have been updated to reflect this. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
	1.9 The intersection of WR19 and Second Line should be included in the review.	17-Jun-22		Colin Baker		This intersection has been added to the analysis. Please refer to the updated TIS, dated March 9, 2023.	Deanna Green, BA Group Deanna.Green@bagro up.com 416-961-7110 ext 149
<u>8.0</u>	Water Treatment Review						
	upply, Source Water Characterization and Monitoring and Treatment nents for a Municipal Well						

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8.1.1	C3W completed a review of the water quality data provided for the pumping well PW21-1 and compared to the Ontario Drinking Water Quality Standards (ODWQS). Water quality testing indicates that except for Total Dissolved Solids (TDS) and hardness, all of the parameters meet the ODWQS.	17-Jun-22	Township of Centre Wellington (C3 Water INC.)		N/A	Noted.	
8.1.2	A point of use hardness treatment system for the residents of the Fergus Golf Course development should be considered to bring the source water hardness levels within the operational guideline of (80-100 mg/L). Given the proximity of the leaching beds proposed for the developments wastewater treatment to the wells, the Township is rightfully concerned about the impact of salt discharged from point of use softeners typically installed by homeowners to address hardness. The City of Guelph and Region of Waterloo share this concern and recently completed a study that found a way to address this concern. They are promoting the use of template assisted crystallization technology for point of use softening. This technology was considered for use at Township Well FPH1 to address hard water concerns. It is reported to work well but is not practical for municipal scale treatment systems.			Colin Baker	TyLin	An updated design proposal has been forwarded to the MECP for discussion. The updated solution will not require beds for the dispersal of treated effluent. Instead, the proposed solution will utilize existing irrigation ponds and the existing golf course for reuse of the treated water. A hardness treatment system will be incorporated into the design of the Water Treatment Plant and captured as a Condition of Draft Approval. The updated servicing study reflects this above.	Steven Roorda, R.J. Burnside <u>steven.roorda@rjburn</u> <u>side.com</u> (226)-486-1548 lan Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
8.1.3	A review of the Groundwater Under the Direct Influence of Surface Water (GUDI) assessment was completed. The C3W team is in agreement with the assessment results and the ultimate classification of PW21-1 as a groundwater (Category 1), non-GUDI source. The proximity of the leaching beds to the supply wells also raises a microbial contamination concern. Although the hydrogeological report indicates that the aquifer is confined with a suitable aquitard in place, the formation of a preferential pathway to the water bearing layer can happen at any time and is difficult to predict. Any monitoring or supply wells placed in the area of the leaching beds are in a prime location where such a pathway can develop.				TyLin	Any wells to be installed at the site shall be constructed to O.Reg.903 standards so that preferential pathways are not developed. The treatment facility is proposed to include disinfection equipment, so microbial contamination is not a concern.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>

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8.1.4	The Province of Ontario is expected to release an updated guidance document for assessing treatment requirements for sub-surface (groundwater) supplies. Under the updated guidance a new well classified as a category 1 (groundwater under the existing guidance) will be granted provisional category 1 classification. A two (2) year period of microbial monitoring will then be required. This monitoring program requires weekly or monthly E. coli testing, and either monthly or quarterly sampling and testing for Giardia, Cryptosporidium and pigment bearing algae and diatoms (PBADS). The frequency of testing is dependent upon whether the newly constructed well is deemed to represent a high or low risk. The anticipated cost of this monitoring program is expected to range from \$20K to \$30K per year, depending upon the testing frequency. Triggers for requiring additional treatment, or a category 2 (groundwater under the direct influence of surface water with effective filtration, GUDIWEF) or category 3 (GUDI) classification include: the detection of a Giardia cyst or Cryptosporidium cyst at any time, or the detection of more than 2 PBAD's through the life of the well. The level of additional treatment required will be 4-log virus, and 2-log Giardia and Cryptosporidium inactivation and/or removal.					Noted.	
8.1.5	The Province of Ontario is expected to release an updated guidance document for assessing treatment requirements for sub-surface (groundwater) supplies. Under the updated guidance a new well classified as a category 1 (groundwater under the existing guidance) will be granted provisional category 1 classification. A two (2) year period of microbial monitoring will then be required. This monitoring program requires weekly or monthly <i>E. coli</i> testing, and either monthly or quarterly sampling and testing for <i>Giardia, Cryptosporidium</i> and pigment bearing algae and diatoms (PBADS). The frequency of testing is dependent upon whether the newly constructed well is deemed to represent a high or low risk. The anticipated cost of this monitoring program is expected to range from \$20K to \$30K per year, depending upon the testing frequency. Triggers for requiring additional treatment, or a category 2 (groundwater under the direct influence of surface water with effective filtration, GUDIWEF) or category 3 (GUDI) classification include: the detection of a <i>Giardia</i> cyst or <i>Cryptosporidium</i> cyst at any time, or the detection of more than 2 PBAD's through the life of the well. The level of additional treatment required will be 4-log virus, and 2-log <i>Giardia</i> and <i>Cryptosporidium</i> inactivation and/or removal.				WSP	Noted.	
8.1.6	An owner may wish to voluntarily provide a higher level of treatment than required and adopt a category 3 classification. To reduce the level of treatment in the future a challenge of the classification would be required, and this entails the same requirements as the two (2) year monitoring program for a new well, provisionally classified as category 1.				WSP	Noted.	

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8.1.7	An owner may wish to voluntarily provide a higher level of treatment than required and adopt a category 3 classification. To reduce the level of treatment in the future a challenge of the classification would be required, and this entails the same requirements as the two (2) year monitoring program for a new well, provisionally classified as category 1. standard of always less than 10 NTU or less than 5 NTU 95% of the time through continuous monitoring.				TYLIN	Noted.
Well Sup	ply Monitoring and Treatment Recommendations					
8.2.1	TMIG's servicing study WTP design was based on the following assumptions: 1. The proposed wells are strictly groundwater, with no direct surface water influence. 2. Provisions for disinfection to achieve a minimum 2-log (99 percent) inactivation of viruses will be included, in accordance with the requirements of Ontario Regulation 170/03 (rev. June 2006). 3. Primary disinfection will be provided by UV with secondary disinfection by sodium hypochlorite. (Chlorine will be injected prior to the clearwells with top-up prior to discharge to the distribution system). 4. Cartridge filters (rated a 5 microns nominal) will be placed in front of the UV system to reduce any potential particulates from entering the UV and reducing its effectiveness. Further, the system is being designed to provide fire flows. As such, treated water storage will be required. This requirement is being confirmed by others.				TYLIN	The WTF reservoir lift pump to provid will be p design st Conditio
8.2.2	The Township may wish to voluntarily proceed with the level of treatment recommended in the report prepared by TMIG. This will provide the highest level of treatment possible, that is commensurate with the requirements of a category 3 (GUDI) well. Should the Township proceed in this fashion, however, and have to take the system over in the future, a source water classification challenge would be required to reduce the level of treatment provided.	17-Jun-22	Township of Centre Wellington (C3 Water INC.)	Colin Baker	TYLIN	Ownersh Plant is u the Deve operator future.
8.2.3	An alternate approach which may be more prudent as well as more cost effective for the developer and the Township in the long run, is presented for consideration. This alternative represents significantly less operations and maintenance (O&M) cost and lower lifecycle cost through the anticipated service life of the infrastructure.				TYLIN	It is our with pro (Primary filtration
8.2.4	The alternative approach includes building the new well supply treatment facility with sufficient space or footprint to include UV treatment and cartridge filtration, but only provide treatment commensurate with that required for a category 1 (groundwater) well; i.e., virus inactivation. In doing so, it would be prudent to treat the well as having a provisional category 1 source water classification and complete the two (2) year monitoring program required of provisional category 1 wells. The frequency of sampling and analysis will be dependent upon the hydrogeologist's assessment of risk with respect to well construction and setting. In C3W's opinion this will likely a low risk rating based upon a review of Golder's hydrogeological report.				TYLIN	TYLin wi disinfect during th will be ca Draft Ap

ise	Consultant Contact
TP will include a subgrade bir and include a number of high nps as well as fire flow pumps vide the necessary flows. Details provided during the detailed stage and captured as a ion of Draft Approval.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> om
ship of the Water Treatment a understood to be operated by veloper (certified third party or, i.e. OCWA or such) in the	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> om
r recommendation to proceed ovisions for UV disinfection ry treatment) and cartridge on.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
vill include provisions for UV ction and cartridge filters the detailed design stage. This captured as a Condition of pproval.	lan Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>

#	Comment	Date Received	Department/Agency	Contact Information	Consultant Responsibility	Response	Consultant Contact
8.2.5	 Should the Township wish to proceed with the alternative approach then the recommendations for water treatment and monitoring include: Build a well treatment facility large enough to provide UV treatment and cartridge filtration. Only include treatment and monitoring (chlorine addition and free chlorine residual) for the inactivation of viruses. It is recommended that the system be designed for 4-log virus inactivation to be compliant with anticipated regulations. With the inclusion of fire flow storage, the requirement will be easily met through the use of free chlorine for primary disinfection. Free chlorine residual will be required, regardless, to provide secondary disinfection in the distribution system. Complete the two (2) year monitoring program for a provisional category 1 well. With this program completed it is likely that additional treatment would not be required should the Township take the well system over. Mandate that the raw water from the supply wells be monitored for E. coli on a weekly basis as per the requirements of O.Reg. 170. With this data inhand, the Township will understand if there is any risk that increased treatment might be required in the future. Mandate that on-line turbidity and UVT monitoring be included in the design. With these in place, the Township will understand if UV treatment on its own will be sufficient should microbial water quality change, or if cartridge filters will also be required. Valuable design information to optimize the design of a UV treatment system in the future, if required, will also be collected. These analyzers should be kept in place for a minimum of three months but could be decommissioned after three months. 				TYLIN	TYLin will design the WTP system for 4-log virus inactivation (extended chlorine contact time to achieve 4-log virus inactivation) and include storage that provides equalization, emergency and fire flow storage for the development. A monitoring program will be implemented to include weekly sampling for E.coli, on-line turbidity and UVT monitoring. This design will be part of the detailed design stage and will be captured as a Condition of Draft Approval.	Ian Parkinson, TYlin International ian.parkinson@tylin.c om
8.2.6	A point of use hardness treatment system for the residents of the Fergus Golf Course development should be considered to bring the source water hardness levels within the operational guidelines (80 to 100 mg/L).				TYLIN	The Water Treatment Plant will be designed to accommodate a hardness water treatment and will be captured as a condition of draft approval.	Ian Parkinson, TYlin International <u>ian.parkinson@tylin.c</u> <u>om</u>
<u>9.0</u>	Hydrogeological Comments						
Water St	upply Investigation Report						
9.1	The testing and analyses presented in this report has successfully demonstrated the test well (PW21-1) and the deeper bedrock aquifer can supply the anticipated maximum day demand of 5.03 L/s for the proposed residential development. The analysis of potential effects on established local private wells estimates drawdown would be less than 1.0 m, when the well is pumped at the maximum day demand rate, and concludes this effect is minor.	09-Jun-22	Township of Centre Wellington (Banks Groundwater Engineering Limited)	Colin Baker		We are in agreement.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837
9.2	With the exception of hardness and total dissolved solids, it is reported the water quality meets the Ontario Drinking Water Quality Standards (ODWQS). An assessment concludes this water supply source should not be "flagged" as potentially Groundwater Under the Influence of Surface Water (GUDI), based of the 2001 MOECP Terms of Reference.					We are in agreement.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837

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9.3	There is no discussion related to proposed onsite wastewater treatment and the potential water quality effects on the proposed water supply source for this development.					The thick upper confining unit and the presence of a shallow groundwater flow system will provide a layer of protection that will limit the movement of water from the surface to the bedrock supply aquifer. Additionally, an updated FSR is enclosed with this matrix which outlines the proposed wastewater solution including a technical memo that was submitted to the MECP and responses to preliminary comments received from MECP in January 2023. The wastewater solution no longer proposes septic beds but treats the wastewater to a high-quality effluent that will be used for irrigation of the existing golf course.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837
9.4	The report acknowledges a Source Protection WHPA-Q extends onto the western part of the subject property. Test well PW21-1 is located just beyond this WHPA-Q, as would also a recommended back up well. The estimated area of influence of either well during pumping at the anticipated maximum day demand would potentially extend into this zone, but no discussion is presented regarding any consequence of this possible situation.					Test well PW21-1 is currently located outside of WHPA-Q and is not considered a threat to the existing municipal water supply. It is acknowledged that the area of influence may extend into the existing WHPA-Q. PW21-1 is located approximately 40 m from WHPA-Q. Based on the distance-drawdown graph, the estimated drawdown at the edge of WHPA-Q would be approximately 1 m. As such any interference would be minimal. The delineation of a WHPA-Q is based on the drawdown from all the wells in an area pumping together. Future re- delineation of the WHPA-Q may include this small area within the boundary.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837
Hydrogeo	ological Investigation Report						
9.5	A pre- and post-development water budget analysis is presented, indicating, with mitigation (i.e. LID measures), the average annual site-wide infiltration could be reduced by an estimated 14 percent. As noted above, a Source Protection WHPA-Q extends onto the western part of the subject property. Reference should be made to the Grand River Source Protection Plan, specifically Policy WC-MC-23.5, for specific requirements regarding maintaining pre-development recharge. If required, clarification should be obtained from the Risk Management Inspector and Official for the Township of Centre Wellington.	09-Jun-22	Township of Centre Wellington (Banks Groundwater Engineering Limited)	Colin Baker	Golder	To be addressed in updated report, which will be provided at the detailed design stage. The report will have consideration of revised site plan and LID plan. Balanced infiltration to be considered as +/- 10% from pre- development conditions. This will be captured as a Condition of Draft Approval.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837

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9.6	A cursory assessment of the central wetland is presented, based on the functional description provided by Beacon Environmental in the Environmental Impact Study (February 2022). This wetland has been "characterized by seasonally high groundwater conditions followed by a seasonal dry period in the summer months". It is understood this wetland is to be retained following development. The Hydrogeological Investigation Report states "groundwater recharge at the site assists to maintain seasonally high groundwater levels that are understood to support the central wetland area" and "it is considered prudent to incorporate LID measures into the development design to mitigate against reductions to post-development rates to the extent practical". A complete year of groundwater and wetland level monitoring at this central wetland would help to substantiate the relationship of groundwater recharge and seasonal wetland water levels.					Continued water level monitoring in the monitoring wells, piezometers and staff gauges will be carried out pre- development to assess seasonal conditions. Data from October 2022 to be included in the updated report, which will be provided at the detailed design stage and be captured as a Condition of Draft Approval.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837
9.7	A groundwater monitoring network was established onsite, and groundwater levels were recorded in April 2021. The report indicates the groundwater monitoring network could be maintained and used for future monitoring. Due to the lack of seasonal monitoring presented in this report, groundwater level monitoring should continue (if it has not been since April 2021) through site development. Groundwater level monitoring should assist in evaluation of the effectiveness of the following: i) maintaining groundwater recharge across the site ii) maintaining seasonal groundwater discharge to the central wetland iii) foundation drain collector systems (i.e. similar to other local development sites).					Recommendations for water level monitoring during development to be provided in the updated report, which will be provided at the detailed design stage and be captured as a Condition of Draft Approval.	David Hinton, WSP david.hinton@wsp.co m 226-821-0837
<u>10.0</u>	Minimum Distance Setback Comments						
10.1	The SAI report does not provide mapping or any information regarding the land use designation of the Subject Lands. The SAI report does state that residential development is permitted in the SE portion of the Subject Lands. However, as emphasizes in the SAI report, Section 9.2.2 of the current County of Wellington Official Plan states in part, "All residential units shall meet the requirements of the Minimum Distance Separation".	23-Dec-22	County of Wellington (Colville Consulting Inc.)	Meagan Ferris	SAI	The SAI report concluded that MDS calculations are not required, given the historical residential and golf course approvals and uses. Subsequently, on April 11, 2023, OPA 119 was approved by the Ministry of Municipal Affairs and Housing which removed the requirement for MDS calculation.	Rob Stovel, Stovel and Associates stovel.associates@out look.com 519-766-8042
10.2	The SAI report recognizes the presence of a dairy farm with a herd of approximately 80 cattle. The report measures the distance from the barn housing the livestock and the manure storage locations to the Subject Lands to be 210 m and 280 m, respectively. However, there is no mapping associated that shows the location of the farm and there does not appear to have been a calculation of the MDS I setback requirements for this livestock facility. Therefore, it is difficult to assess the potential constraint of the livestock operation on the proposed redevelopment. It appears that SAI relies on the interpretation of Guideline #10 which would preclude the application of the MDS I formula to this farm operation.	23-Dec-22			SAI	See response for comment 10.1.	Rob Stovel, Stovel and Associates stovel.associates@out look.com 519-766-8042

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10.3	While we generally agree with this interpretation of the MDS Guidelines, prior to fully endorsing these conclusions, we are recommending that SAI rationalize why Section 9.2.2. of the Wellington County Official Plan is not applicable to the proposed redevelopment.	23-Dec-22			SAI	See response for comment 10.1. As explained in the SAI MDS Analysis report, the subject property was approved for residential and recreational development in 1996. The approvals included a site-specific OPA and ZBA (former Township of West Garafraxa) and a draft Plan of Condominium with associated conditions (approved by the Ministry of Municipal Affairs). SAI understands that there are no references to MDS in those approval documents. The current application contemplates the proposed redevelopment of the site. Amendments to the Official Plan and Zoning By-law were submitted to the municipalities in support of the proposal. These new amendments are being reviewed under the current policies and regulations in place at the time of submission. The most recent guideline that addresses Minimum Distance Separation requirements is: The Minimum Distance Separation (MDS) Document, Publication 853, issued by the Ontario Ministry of Agriculture, Food and Rural Affairs (2016). Publication 853 provides guidance on the application of MDS. Guideline 10 provides clarity to the applicability of MDS I setbacks for this type of application. Guideline 34 is also relevant in that development proposals for the creation of one or more lots for development outside a settlement area and Recreational uses like golf courses are both considered Type B Land Uses. For the purpose of calculating MDS I setbacks, both of these proposed uses are weighed the same in Factor E. Given the direction provided in Guidelines 10 and 34, it is the opinion	Rob Stovel, Stovel and Associates stovel.associates@out look.com 519-766-8042

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						of SAI that the proposed redevelopment of the site, including residential uses, conforms to the requirements of Minimum Distance Separation Formula and subsequently, the proposed application conforms to Official Plan policy 9.2.2, with respect to consideration of MDS I setbacks. It is important to note that Official Plan policy 9.2.2 refers to the MDS formula, which is defined as the formulae developed by the Province	
						to separate uses so as to reduce incompatibility concerns about odour from livestock facilities", as opposed to a particular separation distance set out in the MDS Guideline. Therefore, the MDS Formulae is applied when read as a whole, including Guidelines 10 and 34.	
<u>11.0</u>	Preliminary Environmental Noise Report Comments						
11.1	The noise assessment has applied the Ministry of Environment, Conservation and Parks (MECP) noise guideline limits and requirements as outlined in Publication NPC-300. This is considered appropriate.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Noted.	
11.2	Section 2.1 of the report indicates that the only significant transportation noise source that will impact the site is road traffic on Wellington Road 19. The traffic volumes on the roadways internal to the development and on Third Line are low resulting in their noise impact being below the guideline limits. We agree with this assessment.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Noted.	
11.3	Section 2.1 of the report also indicates that ultimate traffic information was provided from the traffic consultant. It is our understanding that the peer review of the traffic study has raised some concerns about the traffic information. The noise study should be updated using the updated traffic information prepared to respond to the traffic study peer review comments. The assessment should also consider Summer Average Daily Traffic volumes to reflect higher traffic volumes generated by the golf course and the seasonal campgrounds in the area	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Noted. An updated noise report is being prepared to address this comment as the necessary traffic updates/information have been received.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.4	Section 2.2 of the report provides a discussion regarding the stationary noise sources that could impact the development site. The study identifies a dairy farm to the south and indicates that the sound level limits would inherently be met at the proposed development because there are closer residential dwellings to the north and east where the guideline limits are required to be met. The existing dwellings all appear to be on the east side of Third Line whereas the proposed development will be on the west side of Third Line. The existing dwellings have a different orientation to the diary farm than the proposed development would not receive. Thus, additional discussion regarding the diary farm noise emissions is needed.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The Dairy Farm, operating with normal farm operations, is exempt from the noise guidelines (NPC-300) and the Township of Centre Wellington noise by-law and does not require assessment in the context of this report. An updated noise report has been enclosed.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444

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11.5	Section 2.2 of the report also indicates that a pumping station will be constructed on the development site and a water treatment plant will be constructed on the north side of Wellington Road 19. These are correctly identified as being stationary noise sources whose sound emissions must comply with the NPC-300 guideline requirements at the existing dwellings as well as those within the proposed development. Detailed noise studies will need to be prepared in support of these facilities (i.e. the pumping station and waste water treatment plant) to ensure their noise emissions are in compliance with the noise guideline limits at this proposed development as well as at all existing noise sensitive land uses. This should be included in the list of recommendations provided in section 6.0 Conclusions of the report.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The requested language will be included in the updated noise report	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.6	Section 4.1 of the report indicates that a ground absorption coefficient of 0.33 has been applied, where applicable. It is not clear where this has been applied. In addition, the ORNAMENT model requires a ground absorption coefficient of 0 be used when at least 50% of the ground surface between the road source and the receiver is sound reflective. If at least 50% of the ground surface is sound reflective, the ground absorption coefficient should be 0. If there is less than 50% of reflective ground between the source and the receiver is acceptable.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	We are in agreement on how ground reflection is applied. For this project, it is applicable to lots located across the single loaded road that is between the lots and Wellington Road 19. For clarity, this situation will be described in the text of the updated report.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.7	In Section 5.1.1 under Ventilation, there is a recommendation that the outdoor air conditioning condenser units have an AHRI sound rating of 7.6 bels or less. This recommendation should be included in Table 3 which summarizes the noise mitigation requirements for the proposed development.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The requested language is included in the updated noise report.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.8	Section 5.1.2 of the report recommends 2.0 m high sound barrier fences for the dwellings (i.e. Lots 1, 7 to 15, 54, 55, 59, 60, 65, 73 and 74) immediately adjacent to Wellington Road 19. The County of Wellington requests mitigation measures other than sound barrier fences, such as an earth berm across the entirety of Wellington Road 19 and/or increased setback distances (as provided for Lots 66 to 72). If the latter is applied, enhanced landscaping is required. In all situations, design and aesthetics are to be considered to the satisfaction of the Township and the County.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Jade investigated the possibly of using berms instead of acoustic barriers. Based on this review, it is not feasible to construct berms due to grading constraints at this site. There were only two lots at the southwest corner of the site (Lots 54 and 55) where perhaps berms instead of acoustic fences would be feasible. Acoustic fences are proposed in order to achieve mitigated sound levels that are in compliance with the MOE NPC- 300 noise guidelines. It is requested that the Township to consider the use of acoustic fences at this development. Based on our preliminary work, acoustic fences up to 2.5 m high may be required for some lots and can provide adequate acoustic attenuation.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444

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11.9	Section 5.1.2 of the report also recommends a minimum surface density of 10 kg/m2 for any gate in the recommended sound barriers. This is not in conformance with the MECP NPC-300 guideline that requires sound barriers to have a minimum surface density of 20 kg/m2 except for temporary or rooftop barriers. However, due to the minimal amount of sound attenuation that the sound barriers (if used) need to provide for this development, the reduced weight for the gates is considered acceptable where sound barriers must be used.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Noted.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.10	Regarding Table 1 - Summary of Road Traffic Data, clarification regarding these items is needed: The medium/heavy split used in the analysis is somewhat different than the 60%/40% indicated; The road gradient is indicated as being up to 2% in Table 1. However, the sample calculation for the Lot 8 OLA uses a 1% road gradient; and Table 1 indicates the day/night split is 94/6. However, the analysis uses a day/night split of 93/7.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The report has been updated with updated traffic information. Regardless, for the comments in question, the medium/heavy split percentage was a matter of rounding. The road gradient is indicated as up to 2% and is accurate as noted. In the area of Lot 8 (the sample calculation), Wellington Road profile in close proximity of the respective lot is 1% and therefore appropriate for the calculation. The day/night split was a typographical error. As noted, revised traffic data and updates to the calculations will be included in the updated noise report.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.11	Table 3 provides a summary of the noise mitigation recommendations for the proposed development. Note 2 to the table should indicate that the sound barrier heights must be confirmed once a detailed grading plan is available.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The requested language is included in the updated noise report.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444
11.12	Table 3 recommends noise warning clauses regarding the future stationary noise sources be used for Lots 1, 7, 39, 73 and 74. The rationale for only selecting these lots has not been provided within the report. Is this determined from setback distance (as per D-1/D-6)? If so, what distance has been used?	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	Our experience with D-series guidelines was a factor in the decision for the lots with the proximity warning clause applied. To note here, it is expected that all the lots at the residential development will meet the minimum recommended separation distances in the D-series guidelines. In terms of the D-2 guidelines specifically, the WWTP anticipated for this project is in the lowest category of noise impact (based on the forecasted sewage capacity). Aside from distance/setback, experience with the expected noise sources in question	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444

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						and line-of-sight exposure were considered.	
11.13	The report should confirm that all requirements of the local noise by-law will be adhered to.	11-Jan-23	County of Wellington (Valcoustics Canada Ltd.)	Meagan Ferris	Jade	The noise by-law was reviewed and referenced in the original report in terms of the relevance to residential air conditioner condenser units. However, the updated report includes a specific section that discusses further details of the local noise by- law, including but not limited to, the exemption of normal farm operations (and how it coincides with NPC-300). On occasion, Noise By-Laws may indicate relevant numerical sound level criteria that is applicable to the land-use planning process. This is not the case with the Township of Centre Wellington's Noise By-Law.	Aaron Keey, Jade Acoustics aaron@jadeacoustics. com (905)-660-2444