

UTRCA Comments	Our Responses	Proposed Draft Plan Condition
Floodplain		
1. Please provide hydrologic and hydraulic modeling for the subject lands to delineate the extent of the floodplain during a Regulatory (250-year) Storm. The floodplain model is to be reviewed and accepted by the UTRCA flood modeling staff. New development, including stormwater infrastructure is not permitted within the Regulatory (250-year) Floodplain.	An appropriate draft plan condition can be prepared as this is an unregulated drain. Various options exists regarding the outcome of this analysis, non of which prohibit development as proposed. This will be included as part of the detailed engineering submission for the subject lands.	Prior to approval of the detailed engineering submission and prior grading or site alteration activities, the Owner shall complete a Storm Water and hydrologic and hydraulic modeling for the subject lands, and to include modeling flows to demonstrate flood hazard impacts.
2. For new development, the UTRCA requires dry vehicular and pedestrian access, at or above the Regulatory (250-year) Flood Elevation. If roads are proposed to traverse the drains or floodplain, the crossings must be designed to convey flows during a Regulatory Storm without causing any upstream or downstream flood and erosion impacts to the satisfaction of the UTRCA.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition in response to comment #1 in addition to the proposed condition herein.	No additional condition required.
3. The SWM report mentions the potential rerouting/alterations to the Porter Subdivision Drain and Hunter Branch Drain to accommodate the conveyance of existing external flows. The UTRCA strongly discourages changing the route of the existing drains. Additional information is required if rerouting/alterations are proposed.	Although it is not anticipated, the Drainage Act does permit alteration to existing drain. Additional information will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	Prior to approval, if required, the Owner shall undertake appropriate studies as required under the Drainage Act if any alterations or modifications are required as part of this development.
Stormwater Management		
4. Based on the local contour information there may be additional catchment areas which have not been identified on Figure 2. Please provide more detailed catchment areas supported by local contours.	Attached is new figure that shows the full extent of our delineations. Based on the best available topographic LIDAR information. This requirement will be satisfied by the proposed draft plan condition.	No additional condition required other than implementation satisfactory to the Municipality.
5. Please consider the effects of groundwater recharge on the proposed development including SWM infrastructure and the proposed SWM ponds.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	The Owner shall have his consulting engineer prepare and submit to the Municipality supporting information in conjunction with the submission of engineering drawings.
6. Please add and consider water balance in the SWM Criteria mentioned in the Report.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	No additional condition required.
7. The Report states that no quantity control is proposed for Parcel 1 (lands west of Richmond Street). The UTRCA strongly recommends providing quantity control based on the catchment areas and not the site boundaries. Majority of Parcel 1 contributes flows to the Porter Subdivision Drain. There should be no increase in the flow for all the storms (2-year to 250-year) from Parcel 1 to the Porter Subdivision Drain under the post development conditions.	Acknowledged. Flows contributed to the Porter Subdivision drain will be generally limited to the abutting single family rear yards. Post-development flows from Parcel 1 will not exceed pre-development quantity targets to the Porter Subdivision Drain. The increased flows from Parcel one will be directed to the Sandusky Drain. Details pertaining with this will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	As part of submission of detailed drawings, the Owner will provide information outlining the post-development discharge flow from the subject site meets stormwater control requirements for water balance, quality, quantity, and erosion control, and can be accommodate by existing or proposed SWM infrastructure.
8. The lands east and west of Richmond Street fall within the drainage areas of two different drains. Quantity control should be provided based on the drainage areas contributing to these drains and not based on the proposed parcels. There should be no changes in the flow for all the storms (2-year to 250-year) to either drainage area under post-development conditions.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	No additional condition required.
9. The total site area is approximately 45.4 ha but the quantity control is provided for only area 208b (24.15 ha) and area A209 (2.59 ha). The UTRCA recommends providing quantity controls for the various catchment areas instead of over compensating for quantity controls in only two catchment areas.	Consolidating quantity control to single stormwater facility (SWMF) is a more efficient approach for SWMF infrastructure & land requirements, maintenance, and achieves desired development configuration. That said, a large portion of the uncontrolled area pre-development to post-development flow contribution will remain unchanged.	No additional condition required.
10. Please include the 10 and 25-year storms in Table 1 titled Peak Flow Summary – Sandusky Drain at CNR.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	In conjunction with the 1st submission of engineering drawings submission, the Owner shall have his consulting engineer prepare and submit a Storm/Drainage and SWM Servicing Functional Report or a SWM Servicing Letter/Report, all to the satisfaction of the Municipality.
11. All proposed OGS should be designed to provide 80% TSS removal.	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	

12. Please provide additional details on how flows will be conveyed and controlled from area 210 under the post-development conditions.	Acknowledged. Additional detail will be included as part of the detailed engineering submission for the subject lands.	No additional condition required.
13. Quality controls are not proposed for catchment A211. Please provide justification for not providing quality control for the low density residential block. The UTRCA recommends providing quality control for all proposed areas to be developed.	Catchment A211 is tributary to an existing Ida Street storm system which was designed for these lands, as a result quality control requirements for the low density residential block are anticipated to be satisfied by the existing system provided that proposed tributary area represents only a small percentage (with quality treatment provided primarily for driveways) of the overall sewershed area.	No condition required.
14. Please consider the conveying capacity of the CNR ditch under the post-development conditions. Please provide cross sections of the ditch showing the 100 and the 250-year storm elevations.	We are not using the CNR ditch or grading within the CNR lands. As part of detailed design It will be clearly identified that the on-site discharge will be safely conveyed during the 250-year event to the respective outlet locations.	No additional condition required.
15. <i>There is a wetland feature within catchment A210 and A202. Please identify the catchment area contributing runoff to each wetland and maintain the baseflow through a feature-based water balance considering the proposed SWM strategy and the required setback from the wetland.</i>	Acknowledged. This will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	In conjunction with the 1st submission of engineering drawings, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report based on the final subdivision design, to include contributing runoff to each wetland and maintain the baseflow through a feature-based water balance.
16. The drainage areas shown on the Figure showing the existing storm drainage areas do not match with the areas used in Appendix D. Please revise.	Acknowledged. Updated SWM report will be included as part of the detailed engineering submission for the subject lands, and will be addressed by same proposed draft plan condition as in response to comment #10.	No condition required.
17. The SWM Report does not demonstrate how the infiltration deficit will be compensated using SWM Low Impact Development (LIDs) and infiltration techniques under the post-development conditions. Please include details on the proposed SWM LIDS in the Final SWM Report supported by the finding of the Final Hydrogeological Assessment and water balance.	Acknowledged. Updated SWM report will be included as part of the detailed engineering submission for the subject lands. This requirement will be satisfied by the proposed Draft Plan Condition.	In conjunction with the 1st submission of engineering drawings submission, the Owner shall have his consulting engineer prepare and submit a Storm/Drainage and SWM Servicing Functional Report or a SWM Servicing Letter/Report, all to the satisfaction of the Municipality.
Water Balance Assessment		
18. The Report states that localized infiltration rates will vary based on factors such as the saturated hydraulic conductivity of surface soils, land slope, rainfall intensity, and relative soil moisture at the start of a rainfall event, and type of cover on the ground surface. Please use the actual infiltration in the final water balance by conducting infiltration/percolation tests on the site.	Acknowledged to be included in subsequent detailed design submissions.	In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist submit the hydrogeological report including the water balance using infiltration rates assessed based on infiltration/percolation tests to be completed on site.
19. The drainage areas identified on Figure 2, Existing Storm Drainage Area Figure, of the SWM Report, does not match with the areas shown on Drawing 16, Drainage Catchments of the Hydrogeological Assessment. Please make sure that the drainage areas are correct and the areas contributing to the wetland features are identified correctly.	Acknowledged.	In conjunction with the detailed design submissions, the Owner shall have his consulting engineer prepare and submit a Storm/Drainage and SWM Servicing Functional Report or a SWM Servicing Letter/Report of Confirmation to address the following: i) Identifying the storm/drainage and SWM servicing works for the subject and external lands and how the interim drainage from external lands will be managed, all to the satisfaction of the Municipality;
20. The water balance states that due to the infiltration volume deficits observed across the site in the post-development environment, it is recommended to use secondary infiltration and run-off reduction techniques to improve post development infiltration. The infiltration under the post-development condition using SWM LIDs should provide the same volume to be infiltrated under the post-development conditions as per the water balance. a) LIDs measures have been proposed as a method of increasing infiltration. As noted in comment 18, field percolation tests should be conducted at the proposed LID locations to confirm the feasibility of these measures, and water quality will need to be accounted for in the design of any mitigation measures. b) Section 5.4 of the report provides of list of secondary infiltration opportunities which includes the use of pervious pipes to promote infiltration of water collected in the storm sewer system as an option to reduce the infiltration deficit. The storm runoff may have dissolved pollutants such as phosphorous and chlorides. The UTRCA strongly recommends infiltrating only clean water keeping in view the local groundwater recharge.	Acknowledged. If possible, and as determined by detailed design.	In conjunction with the detailed design submissions, the Owner shall have a professional engineer or professional geoscientist submit a hydrogeological investigation(s) based on the final subdivision design. Hydrological support to features identified in the EIS should also be included in the functional SWM design. Elements of the hydrogeological investigation should include, but are not to be limited to, the following, all to the satisfaction of the Municipality: -Completion of a water balance and/or addendum/update to the existing water balance for the proposed development, revised to include the use of LIDs as appropriate; -Completion of a water balance for any nearby natural heritage feature (i.e., all open space Blocks) to include the use of LIDs as appropriate; -Details related to proposed LID solutions, if applicable, including details related to the long-term operations of the LID systems as it relates to seasonal fluctuations of the groundwater table and potential road salt application impacts; -To meet allowable inflow and infiltration levels as identified by OPSS 410 and OPSS 407, include an analysis to establish the water table level of lands within the subdivision with respect to the depth of the sanitary sewers and recommend additional measures, if any, which need to be undertake

<p>21. The water balance calculation has been undertaken for the whole site considering the overall development on the site. The UTRCA requires a detailed feature-based water balance for all retained and created natural heritage features (e.g. woodlands, wetlands, watercourses) to demonstrate that sufficient area is available within the proposed buffers to provide the appropriate infiltration of clean water to maintain the groundwater-dependent features in perpetuity. If this cannot be demonstrated, larger buffers may be required which may impact the configuration of the proposed Draft Plan of Subdivision.</p>	<p>Both the EIS and Hydrogeological report satisfactorily addressed this concern.</p>	<p>This has been addressed, however, the following condition can also be included:</p>
<p>22. The Draft Plan proposes removal of wetland Community 5 (MAS) and partial removal and compensation for wetland Community 8 (MAM2). As noted in comment 43, the UTRCAs policies generally do not support the relocation and removal of wetlands. Please provide a detailed feature-based water balance for the existing and proposed wetland features to confirm:</p> <p>a) That the removal and modifications to the features will not result in any flooding issues to the proposed development; and</p> <p>b) That the relocation and enhancement areas will provide similar functions to the feature that was removed.</p>	<p>The proposed compensation for encroachments are permitted.</p>	<p>That the implementation of the recommendation of the EIS and Hydrogeological be incorporated into the detailed design and implementation of the Plan of Subdivision.</p>
<p>23. The Report mentions that the figures used in the water balance are reported in Appendix K. However, the figures are not included in the Appendix K. Please include the figures showing the pre- and post-development areas used in the water balance to maintain the base flows to the features on the site.</p>	<p>The figures used to complete the water balance are attached.</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report including figures indicating pre-and post-development areas used in the water balance assessment as requested.</p>
<p>hydrogeological Assessment</p>		
<p>24. The Report states that EXP staff confirmed that Porter Subdivision Drain does not exist on the subject lands. According to the UTRCA mapping, the drain enters the lands west of Richmond Street, flowing from northwest corner to the southwest corner of Parcel 1 where it outlets to the Sandusky Drain. The feature is an ephemeral watercourse therefore it will have water flow only after rain/snowmelt with no base flow in other times. The UTRCA staff are aware of existing flood concerns associated with this feature that extend outside of the floodplain identified on our mapping. Please revise the Report to include the Porter Subdivision Drain as an existing feature.</p>	<p>No additional comments required.</p>	<p>Prior to grading or site alteration activities, the Owner shall complete a Floodplain Assessment, to delineate the extent of the flood hazard of the Porter Subdivision Drain, located to the west of the development limit. If any of the proposed lots are located within the floodplain, as determined through the Floodplain Assessment, they shall be appropriately floodproofed, with floodproofing details to be included on the final grading plan and in the Subdivision Agreement.</p>
<p>25. Section 3.3 states that Wetland B (Community 5) is proposed to be removed and may be either compensated on-site, adjacent to Wetland C (Community 2), or may be compensated off-site; Wetland A (Community 8) will be predominantly retained as Park space. The EIS identifies removal of Community 5 and partial removal of Community 8. Please provide further details to confirm that the proposed relocation/compensation area can recreate the features/functions of the wetlands that are proposed to be removed. Please note as discussed in comment 43, enhancements within the existing feature and within the required buffer of the Sandusky Drain, cannot be considered within the calculation for the compensation.</p>	<p>Environmental Impact Study responds appropriately and sufficiently.</p>	<p>In conjunction with the first submission of engineering drawings, the owner shall undertake an Environmental Management Plan, the Owner shall submit a buffer planting and habitat enhancement plan which addresses restoration, compensation and plantings that shall occur around the woodlot and wetland, prepared by a qualified professional, to the satisfaction of the Municipality.</p>
<p>26. Section 3.4.3 notes discontinuous layers of sandy soil. However, sandy soil was observed in various test pit locations and may not be discontinuous. Please confirm.</p>	<p>Relying on reports and assessments of our geotechnical engineer.</p>	
<p>27. Please explain the reasons for discrepancies between the data logger and the manual measurements for MW3/BH between November 2021 and January 2022, and in April 2022, and between two monitoring events for BH9/MW.</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report to provide clarifications in regards to the discrepancies between the manual measurements and the data logger.</p>	
<p>28. Please identify the groundwater flow direction on Drawing 13 for the portion of the site west of Richmond Street.</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report to provide clarifications in regards to groundwater flow direction west of Richmond Street.</p>	
<p>29. Section 4.7 notes metal exceedances in groundwater and surface water. Please comment on the potential source(s) of exceedances.</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report to provide clarifications in regards to water quality.</p>	

<p>30. Please comment on the interpreted source of differences in the chemical signature of samples collected from SW Station 4 in September 2021 and March 2022</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report to provide clarifications in regards to water quality.</p>	
<p>31. Please add a description on the Schoeller Diagrams with respect to the interaction of groundwater and surface water based on the chemical analyses results. Based on the chemical analyses of the surface water and groundwater samples please:</p> <p>a) Include comments on if the wetlands and other site features are groundwater dependent, or surface water dependent; and</p> <p>b) Clarify the interpretations regarding runoff, groundwater, and surface water interactions in the wetlands and watercourses.</p>	<p>In conjunction with the Focused/Design Studies submission, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report to provide clarifications in regards to water quality.</p>	
<p>32. Section 5 notes mitigation measures to increase the post development infiltration to 80% in all four drainage areas. Please confirm:</p> <p>a) If the mitigation measures are only those noted in Section 5.4 Secondary Infiltration Opportunities; and</p> <p>b) If the mitigation measures can achieve post development infiltration to 80%.</p>	<p>This is a detailed design comment.</p> <p>In conjunction with the Focused/Design Studies submission, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report providing additional detail regarding infiltration mitigation measures as requested.</p>	
<p>33. Section 7.3 notes that "Wetlands A and C as well as the Sandusky Drain will be predominantly retained". The SWM Report identifies an external catchment area of 479.35 ha that drains to the Hunter Branch Drain, which crosses Block 27 and connects to Sandusky Drain. The UTRCA recommends that the Hunter Branch Drain should be retained post development as well. Please include details related to the Hunter Branch Drain. Please refer to comment 47 as it relates to Block 27 and the Hunter Branch Drain.</p>	<p>Implement recommendations of the Hydrogeological Report and EIS.</p>	<p>The Owner shall ensure that recommendations from the Hydrogeological Report and Environmental Impact Studies will be implemented throughout this development.</p>
<p>34. The Report includes potential contamination from surface sources. Please comment on other impacts of construction dewatering and development on the surface water features noted in Section 7.3 with respect to water quality and quantity.</p>	<p>This is a normal requirement for installation of municipal services.</p>	<p>No condition required.</p>
<p>35. Section 7.4 dewatering target is assumed to be 0.5 m below base of excavation at 3.0 m bgs (basement foundation) and 3.5 m bgs (sanitary sewer). However, for dewatering calculations in Appendix M, the ground elevation is at 256 masl and the lowest basement bottom is at 253.5 masl leaving only 2.5 m for the basement bottom. Additionally, the precipitation events and volume are not included in the dewatering calculations. Please confirm the depths used in the calculations and note duration of dewatering.</p>	<p>This is a normal requirement for installation of municipal services.</p>	<p>The owner shall, as part of detailed design, make submissions for appropriate dewatering and obtain proper permits from the Province.</p>
<p>36. Section 7.4 notes that the dewatering activities are expected to cause short term impacts to the shallow groundwater regime up to 307.48 m surrounding basements and servicing infrastructure. Please provide a map illustrating:</p> <ul style="list-style-type: none"> ☑ The location of the proposed basements; ☑ The location of proposed linear infrastructure; and ☑ The radius of influence under normal conditions and for the "worst case" scenario to identify features that may be impacted by construction dewatering. 	<p>This is a normal requirement for installation of municipal services.</p>	<p>In conjunction with the detailed design submissions, the Owner shall have a professional engineer and professional geoscientist update the hydrogeological report including, but not limited to, the following:</p> <ul style="list-style-type: none"> i) dewatering duration ii) dewatering rates iii) dewatering drawings
<p>37. According to Section 4.2.1 shallow groundwater was observed across the entire site. As noted, basement foundations are expected to be at 3 mbgs and as such many of the houses will intercept the water table and may require year-round dewatering via basement sump pumps. The dewatering through the basements will reduce groundwater discharge to the wetlands and other watercourses.</p> <p>a) Please provide mitigation measures for the potential impacts to the wetland features; and</p> <p>b) Please confirm that the Municipality is satisfied with the proposed basements on the subject lands based on the findings of the hydrogeological assessment.</p>	<p>The hydrogeological report has been completed.</p>	<p>No additional condition required.</p>

38. Please provide details on the contingency measures noted in section 7.4 with respect to the surrounding water supply wells.	Acknowledge through implementation of Draft Plan Condition.	The Owner shall develop and implement appropriate contingency plans (if applicable) in the event of groundwater interference related to construction. It shall include the effects of the construction associated with this subdivision on the existing ground water elevations and domestic or farm wells in the area and identify any abandoned wells in this plan.
39. The EIS discusses the need for a Monitoring Plan. The UTRCA recommends that the Monitoring Plan studies the impact of post-construction dewatering on the site features including the water courses and wetlands.	The development of the property will be undertaken in phases.	No condition required.
Environmental Impact Study		
<p>40. The UTRCA respectfully disagrees with the proposed 15 m buffer to the Sandusky Drain. Based on the data collected by UTRCA cool water species are present. Through the Terms of Reference review, the UTRCA noted that if the proponent is willing to use protections suitable for a cool water watercourse, the UTRCA would not require additional sampling to be conducted. No additional sampling has been conducted; however a 15 m buffer is proposed. UTRCA encourages protecting watercourses based on the coldest species it is currently supporting in the hopes that the watercourse is able to continue to support that thermal class of fish species.</p> <p>a) Aligned with the recommendations for cool water streams in the Natural Heritage Reference Manual (MNR, 2005) the UTRCA recommends a minimum 20 to 30 m vegetated setback from the Sandusky Drain; and</p> <p>b) The 'naturalization area' shown along the Sandusky Drain in Figure 8 should be considered mitigation for the watercourse, not compensation for the removal of wetland. A net environmental benefit related to the watercourse shall be achieved separate from the net environmental benefit related to the wetlands.</p>	<p>Sandusky Drain is considered 'cool' water with a fish community of predominantly warmwater tolerant species, all of which are common (see Section 4.3.8). The Sandusky Drain will be retained within a minimum 45 m wide Open Space block, providing an average buffer of greater than 20 m to either side. Substantially more protected area adjacent the creek will occur within the retained portions of Communities 8 and 9 to the west of the drain. One small area of reduced buffer width (15 m) is located near the rail crossing at the south of the Subject Lands (see Sections 7.0 and 8.1.4).</p> <p>Areas of naturalization along Sandusky Drain are not included in calculations of wetland compensation for impacts to Community 8. Approximately 0.14 ha of Community 8 is proposed for removal, leaving approximately 1.12 ha of Community 9 along the north side of Community 8 for wetland compensation area. This area is separate from the buffer provided to the Sandusky Drain described above. We stand by our experts.</p>	No additional condition required, as 'cool' water will remain and appropriate site settlement and erosion control will be implemented as required.
41. Section 5.1.1, Group A Features, of the EIS states that there is fish habitat associated with the Sandusky Drain. Fish habitat is included as a Group A feature in the Municipality of Thames Centre Official Plan. The vegetation within Community 6 (MAMS/CUM1), associated with the Sandusky Drain, supports fish habitat within the drain and is critical for cool water systems. Please revise the EIS to clearly reflect the Sandusky Drain as a Group A feature and provide justification for Community 6 (MAMS/CUM1) being a Group B feature.	Fish habitat (Group A feature) is present within Sandusky Drain. Wetland Community 6 is located along Sandusky Drain and contributes to fish habitat, but as indirect habitat it will be described as Wetland under Group B Features (see Sections 5.2.3 and 5.3.2).	In conjunction with the first submission of engineering drawings and consistent with the approved Environmental Management Plan, the Owner shall submit a buffer planting and habitat enhancement plan which addresses restoration, compensation and plantings that shall occur around the woodlot and wetland, prepared by a qualified professional, to the satisfaction of the Municipality.
42. As per comment 21, a detailed feature-based water balance should be completed for all retained and created natural heritage features (e.g. woodlands, wetlands, watercourses).	See column to right for proposed draft plan condition for a feature-based water balance for wetlands and the watercourse.	No new condition required.

<p>43. Figure 6 identifies the removal of Community 5 (MAS). Further, Figure 8 identifies partial removal of Community 8 (MAM2) with wetland naturalization proposed within Community 9 (CUM1), Community 6 (MAMS/CUM1) and Community 8 (MAM2). The UTRCA's policies generally do not support development within a wetland. For relocation and compensation to be considered, please provide:</p> <p>a) details on how a Net Environmental Benefit is achieved through the proposed compensation and enhancement area, including replication of the feature and its functions;</p> <p>b) details on how the overall size of the feature will be maintained or increased. The UTRCA generally requires a compensation ratio of 3:1. Please note enhancements within the existing feature and within the required buffer of the Sandusky Drain, cannot be considered within the calculation for the compensation area but can aid in achieving a Net Environmental Benefit;</p> <p>c) A feature-based water balance for the existing and created features, as discussed in comment 22; and</p> <p>d) Details on buffering from the proposed feature to the lots/blocks and confirmation that that the development will not have any negative impacts on the features. If mitigation measures are required to ensure no impacts, please provide appropriate recommendations in the EIS;</p> <p>All lots and blocks must be located outside of the buffer associated with the retained and proposed features.</p>	<p>Please see updated Section 8.1.2.</p> <p>- Communities 2 and 3 were determined in this EIS to be Regionally Significant (Section 5.3.2) and will be retained in their entirety. Natural and cultural vegetation communities to the north and east of this wetland will also be retained, providing a contiguous natural area of greater than 5.5 ha. To the west of Community 2, a naturalized buffer ranging from 15 m to 30 m in width is proposed to protect the wetland from disturbances associated with adjacent low-density residential development. To the south, the proposed buffer distance between the wetland and adjacent low density residential development (rear lot lines) ranges from 3 m to 25 m. As groundwater movement mimics surface topography and follows a gradient from northeast to southwest, no impacts to the wetland resulting from changes to surface or groundwater inputs are anticipated. Potential impacts resulting from disturbance to wildlife will be mitigated through protection of a substantial natural heritage block (5.5 ha total) surrounding the wetland to the north and east.</p> <p>- Community 5 is a seasonal agricultural pond which will be removed as part of this development. This feature is not a regulated wetland per the Conservation Authorities Act.</p> <p>- Community 8 is an Organic Meadow Marsh on the west side of the Subject Lands. Approximately 0.14 ha of Community 8 is proposed for removal. The removal of Community 8 may be compensated for within Community 9 at a ratio of at least 3:1 by area (Figure 10), resulting in a net gain of wetland area. Additional habitat features may be added to the compensation area to facilitate amphibian breeding.</p> <p>- see response above for information regarding buffers along Sandusky Drain. Per updated Section 8.1.4, a net environmental benefit will be achieved for Sandusky Drain through provision of a substantial buffer, greater than existing narrow vegetated edge with agricultural lands, and by naturalizing this area to shade and cool the watercourse.</p>	<p>In conjunction with the first submission of engineering drawings and consistent with recommendations within the approved Environmental Impact Study, the Owner shall submit a buffer planting and habitat enhancement plan which addresses restoration, compensation and plantings that shall occur around the woodlot and wetland, prepared by a qualified professional, to the satisfaction of the Municipality.</p>
<p>44. Table 7 of the EIS notes that increased noise from the proposed road and residential development is expected to have high levels of negative impacts on species associated with the permanent wetland. No specific mitigation methods are currently recommended to reduce this impact. Please include recommendations on how to mitigate these impacts within the Naturalization Plan.</p>	<p>Our apologies, this section was accidentally copied from a previous report. The net effects table has been deleted to avoid confusion as it is not a requirement of EIS.</p>	<p>No new condition required.</p>

<p>45. As noted in the Terms of Reference comments for the EIS, the UTRCA requested that previous unauthorized filling in the vicinity of the wetland near Marion Street be addressed through the EIS. This has not been addressed in the current report.</p>	<p>Applicant not aware or responsible, and as such is not appropriate or responsible condition as recourse was not pursued at time of suggested filling. The UTRCA has had opportunity and means that have no place in this approval process.</p> <p>Please see updated Sections 4.3.1 (Community 1 description):</p> <p>Community 1 is a Mineral Cultural Meadow (CUM1). Community 1 is primarily grasslands with meandering trails throughout and some trees. Trails appear to be used by nearby residents for recreational activities, including all-terrain vehicles and motorbikes. Where trees are present, the canopy consists of Sugar Maple, Manitoba Maple with some Black Locust and Eastern Cottonwood. Fill appears to have been placed within this community in 2006. UTRCA notes that this was unauthorized by the authority. Under existing conditions, any areas of unauthorized filling have been fully revegetated.</p> <p>As this disturbance is historic and the ground surface is revegetated, no alterations to this area are recommended. Community 1 will be retained within the large Open Space block surrounding wetland Communities 2 and 3.</p>	<p>No new condition required.</p>
<p>46. Recommendation 2 in the EIS states, undertake a scoped review of the medium density block along the east part of the Subject Lands at the time of site plan and detailed design, to finalize the setbacks, buffers and long term ownership and management of those features. The UTRCA disagrees with the recommendation to defer studies, mitigations and recommendations to future applications as this should be addressed prior to delineating the block itself to ensure that adequate development setbacks can be implemented and designated/zoned appropriately. Please revise the recommendation and report accordingly.</p> <p>a) Block 19 includes a portion wetland Community 3 (SWC3) and the proposed 30 m buffer. The UTRCA does not support including Natural heritage features and their associated buffers within development limits. Please revise the limits of Block 19 to include lands outside of the features and the 30m buffer.</p> <p>b) Please provide a recommended buffer for woodland Community 4 (CUW1) and include recommendations for mitigation measures in the Final EIS to ensure no negative impacts to the feature and its ecological functions. Please revise the limits of Block 19 to include lands outside of the woodland feature and the recommended buffer.</p> <p>c) Please confirm the future ownership of heritage features, specifically the Park and Open Space Blocks. The UTRCA recommends that all hazard lands, natural heritage features and their respective buffers are dedicated to the Municipality.</p>	<p>a) The former medium-density block has been removed from the Draft Plan is now shown as single family lots.</p> <p>b) Woodland Community 4 has a north and south component. The northern part will be retained within the large Open Space block surrounding wetlands 2/3; the southern portion will be retained within an 13 m (average) buffer</p> <p>c) The Owner shall dedicate all hazard lands, natural heritage features and their respective buffers to the Municipality.</p>	<p>No new condition required.</p>
<p>47. The SWM Report identifies an external catchment area of 479.35 ha that drains to the Hunter Branch Drain, which crosses Block 27 and connects to Sandusky Drain. Further, Figure 8 identifies a portion of wetland Community 8 (MAM2) within the Block 27. The UTRCA's policies do not support development within hazard lands and within wetlands. Please provide details on the features, and clearly identify the features and the associated setbacks on the plan.</p>	<p>Natural heritage features and setbacks are shown on Figure 8 and described in the report as noted in responses above.</p>	<p>In conjunction with the Focused Design Studies submission, the Owner shall have his consulting engineer prepare and submit a Storm/Drainage and SWM Servicing Functional Report or a SWM Servicing Letter/Report of Confirmation to address the following:</p> <p>ix) Ensure all geotechnical conditions, natural heritage and/or hazard considerations, and required setbacks related to the slope stability and natural features including open watercourses, if any, that services upstream catchments are adequately addressed for the subject lands, all to the satisfaction of the Municipality and UTRCA.</p>
<p>48. Section 8.5 of the EIS discusses the need for a Monitoring Plan. Please include the Monitoring Plan in the recommendations. The Monitoring Plan should monitor the water levels within and adjacent to the retained and proposed wetland features to ensure that the hydrologic functions are maintained.</p>	<p>A monitoring plan has been added as Section 8.4 of the report.</p>	<p>In conjunction with the first submission of engineering drawings and consistent with recommendations within the approved Environmental Impact Study, the Owner shall submit a buffer planting and habitat enhancement plan which addresses restoration, compensation, plantings and <u>monitoring</u> that shall occur around the woodlot and wetland, prepared by a qualified professional, to the satisfaction of the Municipality, all to the satisfaction of the Municipality and UTRCA.</p>

49. Please include the Land Use Designations and Zoning on Figure 2 and Figure 3 respectively.	This comment is unclear. Figure 2 shows Municipal Land Use Designations and Figure 3 shows Zoning. MTE will confirm visibility of layers in multiple PDF-viewers prior to re-submission.	No new condition required.
Planning Comments		
50. The extent of the erosion hazard identified on the attached mapping is approximate. Consistent with the Technical Guide River & Stream Erosion Hazard Limit (MNR, 2002), the erosion hazard limit for the drains/watercourses on the subject lands should be determined through site specific studies, completed by a qualified professional, to the satisfaction of the UTRCA. Please clearly identify the erosion hazard limit on the Draft Plan and ensure that all development lots/blocks and stormwater infrastructure are located outside of the erosion hazard setbacks.	The municipal drain is shallow with limited flows and there is no erosion concerns identified due to the limited flows and width of the drain.	No additional condition required.
51. The required setback from the watercourses on the subject lands is the greater of the erosion hazard allowance as discussed in comment 50, the floodplain limit as discussed in comment 1 and the setback determined through the EIS as discussed in comment 40. Please clearly identify all setbacks on the Draft Plan and ensure that all development lots/blocks and stormwater infrastructure is located outside of the greater of the setbacks.	No new comment.	No additional condition required.
52. Please provide a Figure with the development overlaid on an air photo which identifies: ☑ the vegetation communities and the associated buffers; ☑ the setback from the Sandusky Drain; and ☑ the limits of the hazard lands including All development and site alteration, including grading, and stormwater infrastructure, are to be located outside of the above features and their associated buffers to the satisfaction of the UTRCA.	The EIS prepared has confirmed limits of open space network.	No new condition required.
53. The notice for the proposed Plan of Subdivision & Zoning By-law Amendment states that the Areas zoned Environmental Protection (EP) is to remain unchanged. a) The UTRCA recommends that the natural heritage features, and associated buffers as identified in the Final EIS, to the satisfaction of the UTRCA, are rezoned to EP. b) The UTRCA recommends that the hazard lands, as discussed in comment 1 and comment 50, are rezoned to EP.	The EIS confirms limits of the open space network.	No new condition required.
54. Please confirm the future ownership of hazard lands, Park and Open Space blocks. The UTRCA recommends that all hazard lands, natural heritage features and their respective buffers are dedicated to the Municipality.	The municipality can obtain the open space network including all hazard lands, natural heritage features and their respective buffers to satisfy parkland dedication requirement.	No condition required.
55. The UTRCA recommends a housekeeping amendment to the Schedule 'B-1' of the Municipality of Thames Centre Official Plan to delineate the Group A feature, Group B features and Group C features (inclusive of the hazard lands) on the subject lands with the appropriate designation as outline in Section 3.2.1 of the Official Plan.	This is not part of our application	No condition required.
Public Comments		
Fundamentally contrary to the character of the neighbourhood. -Lot sizes per lot (single family and medium density) is much smaller than existing lot sizes; -medium density condos/townhouse not existent in Dorchester -44% increase of the village's population concentrated in approximately 4% of its settlement area Threatens to disrupt wildlife, natural habitats, and environmentally sensitive areas.	The plan has been redesigned to address public comments as well as respond to the policies of the PPS and County and Municipal Official Plan.	Implementation of the revised Draft Plan and zoning.
Pave over prime agricultural land contrary to the direction given in the Provincial Policy Statement -the Provincial Policy Statement has specifically recognized the importance of directing development away from prime agricultural lands and preserving the food production capacity of our rural communities, especially in Southwestern Ontario.	Lands are within the Settlement boundary and designated for residential uses.	No additional condition required.

<p>Construction nuisances our neighbourhood will be forced to endure</p> <ul style="list-style-type: none"> -our lungs and homes will be polluted with dust and debris from topsoil striping, grading, earthworks and paving; the peace and quiet of our neighbourhood will be pierced by incessant beeping, buzzing, and roaring of machines and power tools; the stench of poured concrete and hot asphalt will infect our air; our properties will be at risk of debris and errant object; and our roads will be degraded by overuse from heavy trucks and machinery 	<p>The plan has been redesigned to address public comments as well as respond to the policies of the PPS and County and Municipal Official Plan.</p>	<p>No additional condition required.</p>
<p>This area lacks adequate municipal servicing to support the proposed development</p> <ul style="list-style-type: none"> -Services are more readily available and more cost-efficient on the South Side of the River. -Thames Centre's Director of Planning recently provided Council with a comprehensive Planning Justification Report recommending that the Municipality remove this parcel from the Dorchester Settlement Area in exchange for parcels of land south of the River where tie in to existing municipal servicing is immediately available. -Residents will be saddled with the inevitable cost of being forced to remove our own septic system and tie into municipal servicing. -Estimates the cost of construction of the pumping stations and force mains is at more than \$10,000,000.00. The cost of this construction will be borne ultimately by anyone buying a house in this subdivision. 	<p>Development will be consistent with the Municipal EA and Master Plans.</p>	<p>The Owner implements the Municipal Class EA to the satisfaction of the Municipality.</p>
<p>Will significantly increase hazards and risks while simultaneously detracting from quality of life in our neighbourhood</p> <ul style="list-style-type: none"> -exponential increase in traffic; -community's complaints about the lack of sidewalks or bike paths on Richmond Street, Marion Street, and much of Clara Street, have gone unanswered, leaving our residents and children vulnerable to this added new risk -will drown out the peaceful sounds of nature with the incessant din of suburbia -inevitable proliferation of garbage, litter, and pollution from exhaust, spills, and discharge -will become a prime target for theft and crime 	<p>The subdivision has been redesigned to better address traffic and densities.</p>	<p>No additional condition required.</p>
<p>Will quickly overwhelm the capacity of our schools, public services, and other amenities</p>	<p>The subdivision has been redesigned to better address traffic and densities.</p>	<p>No additional condition required.</p>
<p>Medium density for seniors and empty nesters should be located south of Thames River</p> <ul style="list-style-type: none"> -in a village without public transit, we must keep in mind that almost all business and recreational services located within convenient walking distance of residential areas are located in the commercial node on Dorchester Road 	<p>The subdivision has been redesigned to better address traffic and densities.</p>	<p>No additional condition required.</p>