



June 25, 2025

Greg Brown
Brown & Co.

greg@browncompany.ca

Re: Environmental Review of Lot 19, Stothart Creek Subdivision, Haliburton; Our File 1725

Dear Mr. Brown:

Thank you for asking Michalski Nielsen Associates Limited to complete this Environmental Review in relation to Lot 19 of the Stothart Creek Subdivision, a schematic of which is included as the first map in **Appendix A**. That appendix also includes additional mapping and aerial photography of the subject property. As background, it is my understanding that this subdivision received Draft Plan approval in approximately 1992, with the 41 lots being progressively developed. It is my further understanding that the original layout of these lots was completed by the surveying firm then known as Curry Bishop, now known as Bishop Geyer Surveying Inc. Our firm has worked alongside that firm for several decades and recognizes their skills in laying out lots to avoid environmental features, something which is quite evident in my review of the lotting plan for the Stothart Creek Subdivision.

It is my understanding that you were in the process of undertaking initial grading work for a driveway, home and sewage disposal bed on Lot 19. In the process of applying for the septic permit, staff from the Municipality of Dysart et al. noted the presence of municipally-identified Environmental Protection (EP) zoning over the northerly approximately 40% of Lot 19, despite that portion of the property being outside of the floodplain of an adjacent watercourse, and despite the great majority of these lands being well drained and at an elevation that is approximately 4 m high than the adjacent floodplain and associated floodplain wetlands. The EP limit is also at odds with the Provincially-mapped limits of wetland in relation to this property, as available through both the Province's mapping tools and the County of Haliburton's GIS mapping. Given these discrepancies, the municipality requested that you retain an ecologist to complete a site-specific review of conditions within and adjacent to this lot, to properly identify environmental constraints and associated environmental setbacks/buffers from constraint areas. I should note that I previously undertook a very similar Environmental Review in relation to Lot 4 of this subdivision, a lot that was also considerably constrained by EP zoning, the boundaries of which bore no relation to actual

constraints on the property (letter report of April 7, 2020 to Ms. Stephanie Roberts of the Municipality of Dysart et al.).

To complete the present assessment, I first reviewed background mapping, and aerial photography of the subject lot from the Province's natural heritage mapping database, the County of Haliburton's interactive GIS mapping, and the Municipality of Dysart et al.'s interactive zoning mapping. I then attended the site on June 24, 2025, at a time of year that was ideal for assessing environmental constraints. Prior to undertaking that site visit, I mapped the extent of wetland constraint along/adjacent to the subject property, then field verified that limit during the site inspection.

For context on Lot 19, the first map in **Appendix A** shows its location within the subdivision. The second map shows its location in relation to provincially mapped resources, namely a watercourse and wetland, occurring just beyond the northern boundary of Lot 19. The third map shows the EP zone in relation to this lot, which includes the stream and wetland corridor, but which also extends considerably into this lot, and which is therefore at odds with the provincial mapping. Although the provincial wetland mapping is based on computer-generated analyses of aerial and satellite imagery, and is not field-truthed, our extensive work with this mapping source has shown that it is generally reasonably accurate, particularly in relation to the delineation of features such as this riverine wetland, where such computer-generated analyses is very good at identifying wetland boundaries.

The fourth map in **Appendix A** includes an aerial photographic underlay of the Province's natural heritage mapping, with the limits of the provincially-identified wetland visible in the blue tone; while that tone is somewhat difficult to see on that aerial, it is nevertheless very clear that it coincides with the low-lying floodplain of the watercourse that is located to the north of Lot 19.

The fifth map in **Appendix A** is from the County of Haliburton GIS mapping, with its wetland layer based on provincial mapping. As is evident from that figure, the mapped wetland boundary quite clearly coincides with, or is just back from, the rear boundary of Lot 19 (it is between 0 m and 8 m north of the lot, in no areas extending into the lot itself). In fact, in reviewing the relationship of this constraint area to the Stothart Creek Subdivision as a whole, it is quite clear that the surveying firm of Curry Bishop that originally laid out these lots fully considered this constraint in the lotting plan for this subdivision.

The sixth map in **Appendix A** shows a different wetland map layer, being that referenced as the Ducks Unlimited, or DU, wetland layer, which does extend into a portion of Lot 19. Based on this and other projects I have been involved in, this particular wetland layer appears to have been used as a reference tool in the development of Township of Dysart et al.'s EP zone limits (although curiously, the EP zoning for this particular property does not accurately reflect that wetland layer either). Regardless, it has been our experience that the DU mapping layer is very unreliable, a concern I have raised in numerous reports I have prepared in this municipality.

The seventh and final map in **Appendix A** shows the limits of wetland in relation to Lot 19 as the dashed green line, based on my office's detailed aerial photographic interpretation of the boundary, coupled with

my field truthing of it on June 24, 2025 (with the field truthing showing that the actual wetland boundary was in full agreement with my aerial interpretation, and with both very clearly matching the provincially-identified wetland limit).

Photographs 1 – 4 show the rear portion of Lot 19, corresponding to the portion of this lot which has been zoned EP (note: the orange stake in **Photograph 3** shows the northwest property boundary). As is evident from these photos, there has been some earthworks in this area in association with the preparation of this lot for building, but these works have not influenced existing grades within this area. These lands are well-drained and contain forest dominated by Balsam Fir, with smaller amounts of Eastern Hemlock and Black Cherry. The great majority of this portion of the property sits at an elevation approximately 4 m higher than the adjacent floodplain, with a generally steep slope down to that floodplain beginning approximately 8 m from the northern limit of this lot. Apart from the area of slope in the rearmost portion of this lot, there are no biophysical constraints (lands are otherwise quite level, well-drained, do not have any drainage features or depressional features within them, and do not contain any rock barrens or rock outcroppings). Indeed, and while recognizing that there had been quite a bit of clearing on this lot when I inspected it, conditions within that portion of the lot that are zoned EP are really no different than those over the remainder of it that is zoned residential.

Photographs 5 and 6 provide views of the floodplain wetland area that occurs adjacent to Lot 19 and which is also mapped as EP. This area of meadow marsh, with portions of it having transitioned to a Speckled Alder shrub thicket, is lowlying and has wetland conditions throughout. It surrounds a low gradient, slow-flowing watercourse, shown in **Photographs 7 and 8**. The entire floodplain has a high water table and is undoubtedly flooded in the early spring, with small pockets of open water remaining at the time of my site inspection. It was appropriately excluded from the lotting plan when Lot 19 and the adjacent lots were originally laid out, and has been appropriately mapped as wetland by the province, as well as in the County's standard wetland layer. **As the Municipality of Dysart et al's mapped boundary of the EP zone is centered on this feature, and in areas does generally follow its boundary, and as there are not other environmental constraints which should have led to portions of Lot 19 having been additionally zoned EP, it can be reasonably assumed that it was the intent of the EP zone to capture this wetland area and it alone.**

It does appear that the watercourse and the associated floodplain to the rear of Lot 19 are beaver-influenced, likely resulting in some water level fluctuations between years, depending on locations of dams along this system. However, any such water fluctuations would have no influence on conditions within Lot 19, the vast majority of which sits at an elevation of approximately 4 m above that wetland and is not susceptible to flooding. In this regard, **Photograph 9**, showing the north-central property stake in orange towards the toe of slope at the rear of Lot 19, provides evidence of the very abrupt transition from wetland to upland slopes. This is even better evidenced in **Photographs 10 – 12**, showing the steeply sloping but well-drained terrain within the northern-most approximate 8 m of the subject property, with gently graded tableland occurring to the south of that narrow transitional area.



Photographs 1 and 2. Views of unconstrained lands zoned EP within subject property (June 25, 2025).



Photographs 3 and 4. Additional views of unconstrained lands zoned EP within subject property (June 25, 2025).



Photographs 5 and 6. Views of adjacent area of floodplain wetland that is appropriately identified as EP (June 25, 2025).



Photographs 7 and 8. Lowlying floodplain includes a meandering watercourse through the centre of it (June 25, 2025).



Photograph 9. View from valleyland back towards subject property (June 24, 2025).



Photograph 10. Wetland boundary is well defined, and bordered by an area of $\pm 1:2$ slopes, rising up to good areas for building, some 4 m in elevation higher than that floodplain (June 24, 2025).



Photographs 11 and 12. Additional views of sloped lands adjacent to floodplain, which are recommended to be preserved as a natural buffer (June 25, 2025).

Summary Comments and Recommendations

Lot 19 of the Stothart Creek Subdivision is not constrained by wetlands, although the northern property boundary is located along or adjacent to the edge of a floodplain wetland that has been appropriately identified as an environmental constraint. There are no other environmental constraints within Lot 19 itself, including within that portion of the property that has been zoned EP. That said, the most northerly portion of this lot does have a generally steeply sloping terrain down to the floodplain, with it being important to protect the integrity of that slope area. In this regard, Michalski Nielsen Associates Limited recommends that:

- **the footprint of both the dwelling and sewage disposal bed on Lot 19 be located a minimum 10 m back from the northern property line;**
- **lands within 8 m of the northern property limit are to be retained as a natural buffer, within which there is to be no grading. Vegetation cover is to be maintained, with only minor exceptions to allow for:**
 - **the removal of trees posing a legitimate safety hazard;**
 - **the creation of a pedestrian pathway that winds between trees and which is no wider than 1.8 m; and**
 - **the limited limbing of trees and selective cutting of understory vegetation to create view windows from the dwelling to the wetland.**

In closing, I trust this assessment of site constraints and the clarification of the actual wetland boundary in relation to Lot 19 of the Stothart Creek Subdivision provide the Township of Dysart et al with the information it requires to allow development of this lot to proceed. The recommended setbacks and buffers from the wetland that occurs just beyond the northern boundary of this lot are fully appropriate to protect the environmental qualities of this wetland, while also maintaining the practicality of building on this already approved residential lot. I would be pleased to answer any questions Township staff may have.

Yours truly,

MICHALSKI NIELSEN ASSOCIATES LIMITED

Per:

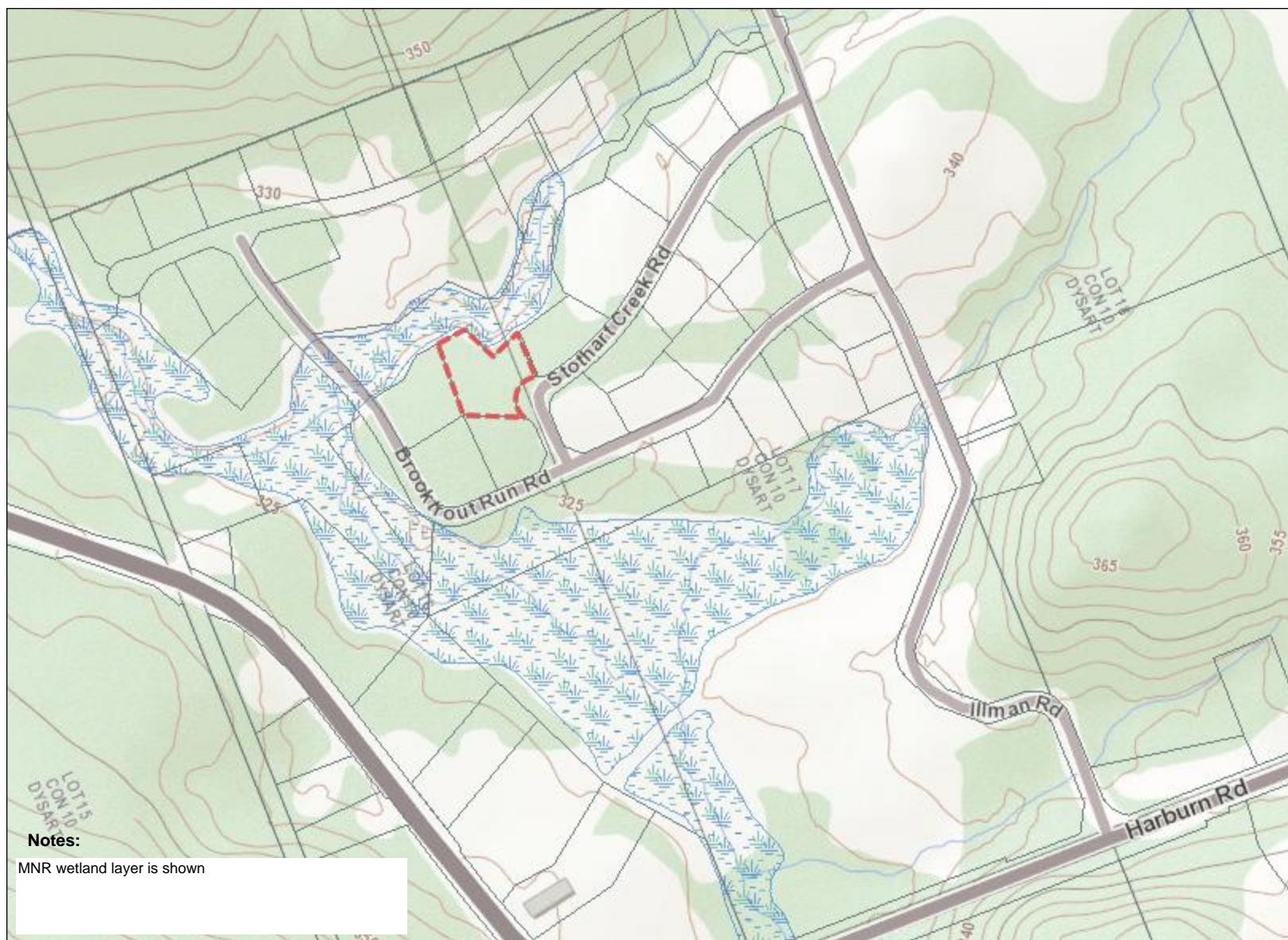


Gord Nielsen, M.Sc.
Ecologist
President

**APPENDIX A – BACKGROUND MAPPING AND
AERIAL PHOTOGRAPHY**



 Stothart CREEK



Notes:

MNR wetland layer is shown

0.3 0 0.16 0.3 Kilometres














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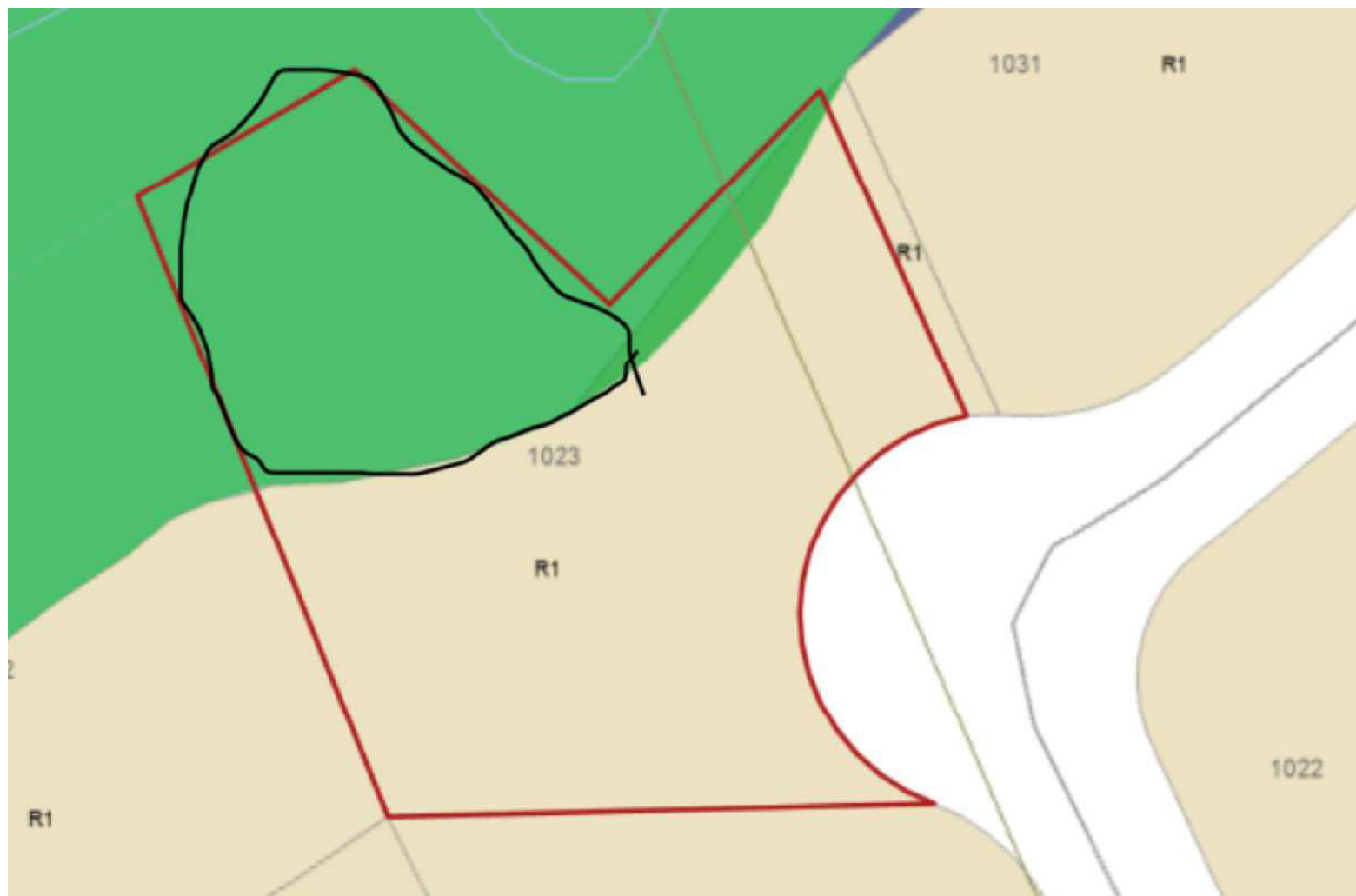


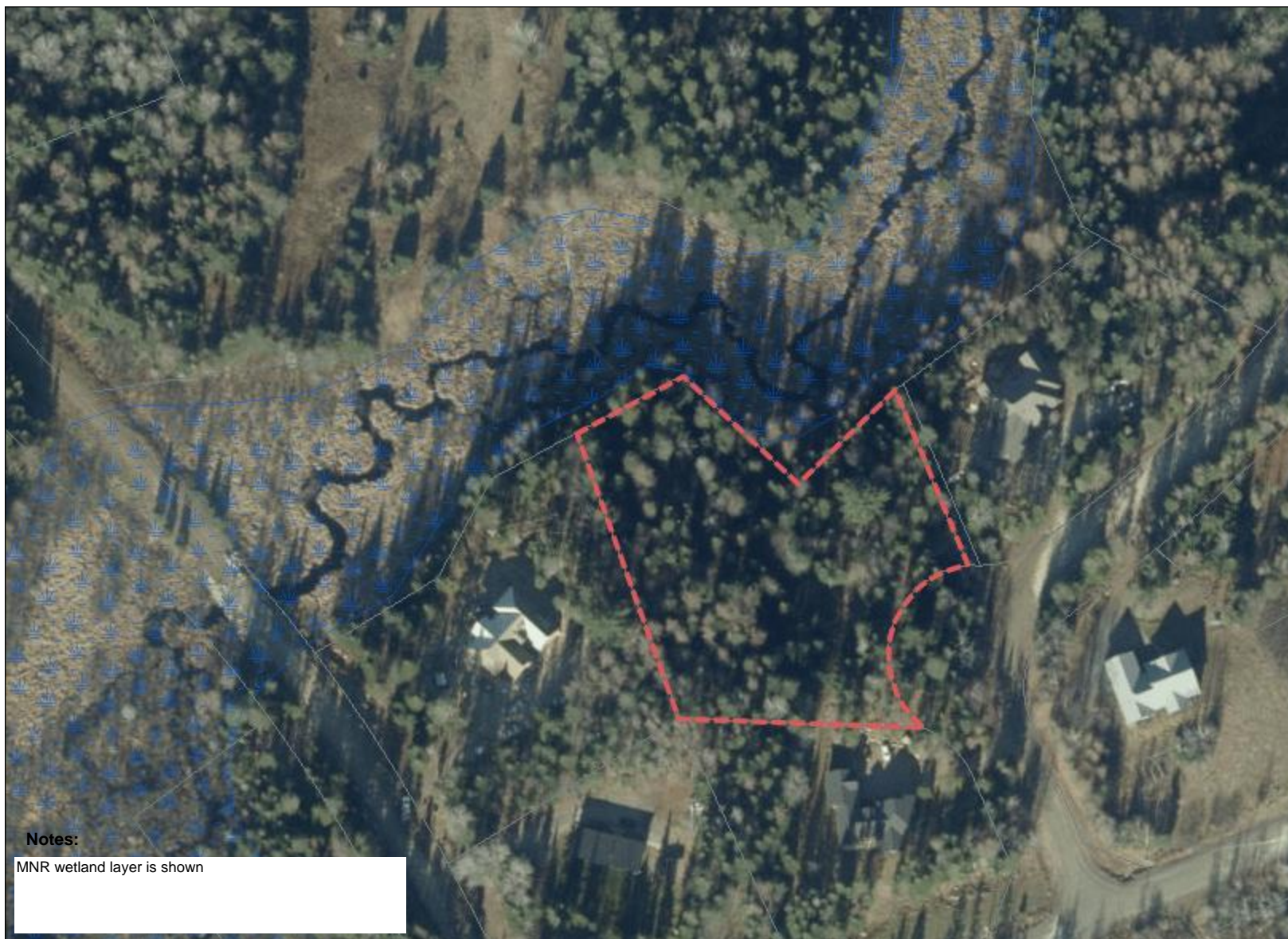
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Legend

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-  ANSI
-  Earth Science Provincially Significant/sciences de la terre d'importance provinciale
-  Earth Science Regionally Significant/sciences de la terre d'importance régionale
-  Life Science Provincially Significant/sciences de la vie d'importance provinciale
-  Life Science Regionally Significant/sciences de la vie d'importance régionale
-  Evaluated Wetland
-  Provincially Significant/considérée d'importance provinciale
-  Non-Provincially Significant/non considérée d'importance provinciale
-  Unevaluated Wetland
-  Conservation Reserve
-  Provincial Park
-  Natural Heritage System

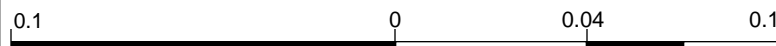






Notes:

MNR wetland layer is shown















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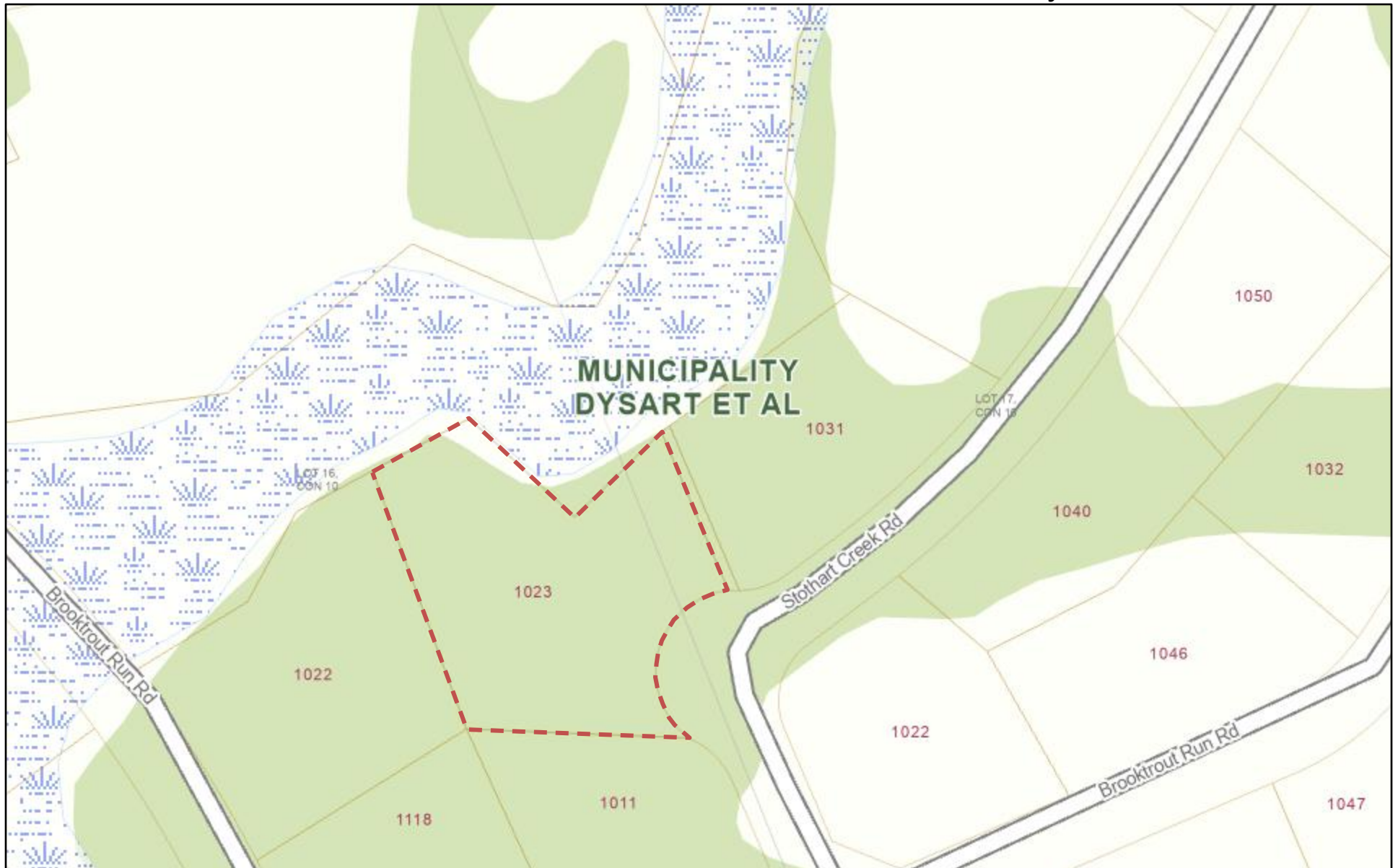
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-  Provincial Park
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Stothart Creek Lot 19, with Province's wetland layer



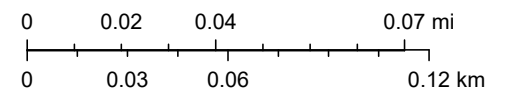
June 19, 2025

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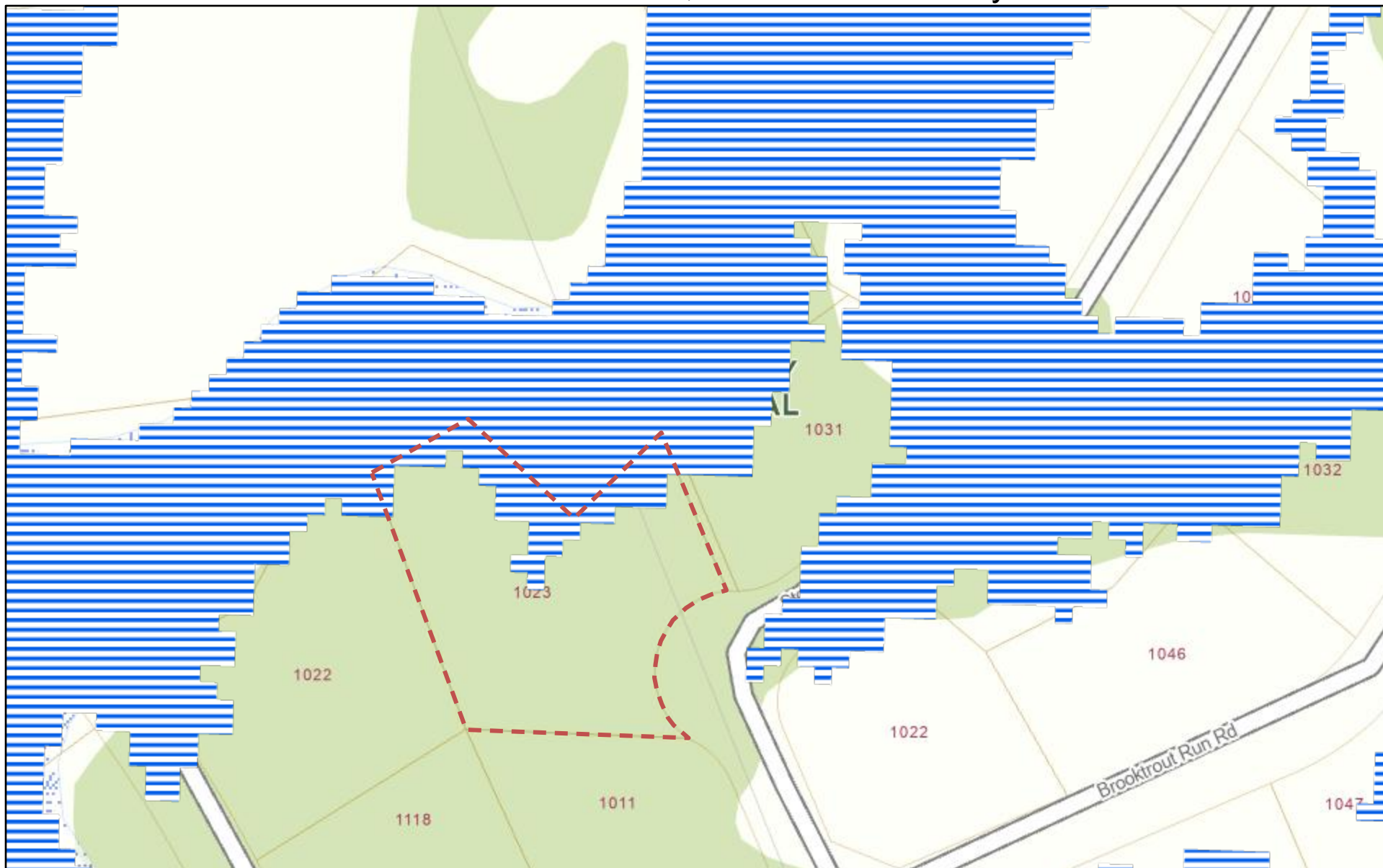
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Scale: 1:2,257



Stothart Creek Lot 19, with DU wetland layer



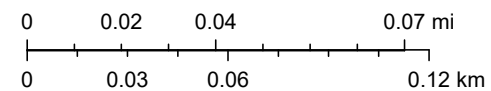
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Notes:

field-verified wetland boundary marked in green

0.0 0 0.02 0.0 Kilometres


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