



Town of Huntsville Staff Report

Meeting Date: August 11, 2021

To: Planning Committee

Report Number: DEV-2020-30 (Amended 2)

Confidential: No

Author(s): Richard Clark, Manager of Planning

Subject: Z/03/2020/HTE - Wheeler & Griffiths - 70 Glen Acres Road

Report Highlights

Staff review and recommendation to the Planning Committee respecting Zoning By-law Amendment application Z/03/2020/HTE.

Recommendation

That: Planning Committee DENY Zoning By-law Amendment Application Z/03/2020/HTE.

Background

On March 11, 2020, and April 14, 2021, this application (see [DEV-2020-30](#) & [DEV-2020-30 \(Amended\)](#)) was deferred by the Planning Committee until such time as the applicant addressed outstanding concerns to the satisfaction of Town staff, including:

- a noise mitigation strategy;
- an updated floodplain study;
- an updated wetland evaluation report as necessary based on consultation with the Ministry of Natural Resources and Forestry (MNRF);
- the application being amended to recognize the existing location of the barn and parking requirements;
- provision of sanitary facilities; and
- further consultation with the Ministry of Natural Resources and Forestry.

On May 3, 2021, following consultations between the applicant and MNRF staff respecting the boundary of the Big East Delta Provincially Significant Wetland (PSW) on site, the applicant received written confirmation from MNRF staff indicating that anthropogenic structures on site (including the barn) and areas of pasture, will be removed from the PSW.

On July 8, 2021, the applicant's agent, Wayne Simpson and Associates, submitted additional supporting documentation from Duke Engineering to address flooding hazards on site associated with

the confluence of the Big East River Floodplain and the Lake Vernon Static Flood Elevation. An additional letter regarding this matter was submitted on August 5, 2021.

On August 4, 2021, the applicant's agent provided a letter summarizing the progress made in respect to this application since the item was last before the Committee and requesting that the application be brought back to the Committee. This letter is appended to this Report as Attachment #1.

Discussion

Noise mitigation strategy

As previously noted, a formal strategy has not been prepared by a qualified professional to address this matter.

Updated floodplain study

Concerns remain outstanding in relation to this matter. The applicant's agent submitted two supplemental letters by Duke Engineering to address previously noted staff concerns, as outlined in Report [DEV-2020-30 \(Amended\)](#), relating to the appropriate characterization of flooding hazards associated with the Big East River Floodplain in the vicinity of the subject property. The letters are appended to this Report as Attachments #2 and #3. Both a 1989 flood plain mapping study completed by the Ministry of Natural Resources and Forestry (MNRF) and a 2018 flood plain study completed by Hatch Ltd. identify the Big East River and Lake Vernon related flood prone areas in the vicinity of the lands as being "Floodway" (i.e. the area where the majority of flow is conveyed through the flood plain). Conversely, the applicant's engineer has concluded that the lands affected by the application should be considered "Flood Fringe". As this characterization did not appear to appropriately consider the matter of Flow Depth, which is contrary to MNRF technical guidance respecting mapping of riverine natural hazards (Technical Guidance: River and Stream Systems: Flooding Hazard Limit), additional information was requested. It should be noted that this MNRF Technical Guidance indicates that a "Floodway" typically corresponds to flood plain areas where Flow Depths in excess of 1m and/or flow velocities above 1m/s can create significant hazards for developments. Unfortunately, neither of the supplemental reports submitted to date clearly address the matter of Flow Depth.

In the absence of a study which appropriately considers applicable MNRF Technical Guidance, the 1989 and 2018 Hatch Ltd Flood Plain mapping study characterizations of the flood plain in the vicinity of the property as "Floodway" appears more appropriate as a survey of the lands surrounding the barn indicates that the average elevation of the area is 285.4m ASL, or 1.28m below the Lake Vernon static flood elevation of 286.68m ASL.

Updated wetland evaluation report

As noted above, MNRF staff has provided written confirmation to the applicant that has resulted in a revision to PSW mapping in the lands affected by the application. This correspondence and the associated mapping is appended to the letter contained in Attachment #1.

Amended application to address the barn and parking locations

As the subject lands are located in a Floodway, the zoning by-law prohibits new development of any kind. As a result, staff noted that the application had to be amended to recognize the location of the barn to allow it to remain. The applicant has agreed to amend their proposal.

The owner has suggested that the required 38 parking spaces could be accommodated off the existing driveway; however, no sketch was provided to illustrate that the proposed parking can be

sited in accordance with the requirements of the Zoning By-law. Further, as noted previously, the proposed parking adjacent to the driveway would be within the Floodway.

Sanitary facilities

The applicant is proposing to use portable toilets during events. Although staff have no concerns with this proposal, it should be noted that any required portable washrooms must be maintained on site at all times throughout the year, to the satisfaction of the Town.

Further consultation with the MNRF

As noted above this matter has been addressed.

Summary

As the barn and proposed private event/function venue use are located within the Floodway associated with the Big East River Flood Plain and below the Static Flood Elevation of Lake Vernon, approval would not be consistent with applicable floodplain management policies of the Town, District or Province.

Options

Committee could recommend approval of the application; however, that is not recommended as it would not appear to conform to the intent of the Official Plan and be consistent with the Provincial Policy Statement.

Council Strategic Direction / Relevant Policies / Legislation / Resolutions

Strategic Plan

Natural Environment & Sustainability Goal 1.1: Partner with organization to respond to planning for climate change in Muskoka.

Natural Environment & Sustainability Goal 1.6: Prohibit development in areas prone to flooding.

Natural Environment & Sustainability Goal 2.2: Integrate sustainability principles into planning & development policies and processes.

Natural Environment & Sustainability Goal 2.4: Work with appropriate authorities to adapt to climate change and flooding.

Communications Goal 1.4: Awareness - to increase awareness of Town Services and events.

Communications Goal 2.1: Community engagement - increase opportunities for public engagement.

Unity Plan

Social Considerations

Goal 6: Social well-being: The community will encourage and support social diversity and personal sense of well-being by improving accessibility, promoting volunteerism, striving to reduce poverty, and maintaining a healthy, safe, friendly community to live, work, and play for all ages, cultures and abilities.

Goal #5 Land Use Planning: Huntsville will become a model of sustainable community development, by incorporating the principles of smart growth, sustainable design and green buildings into all land use planning decisions. This will include a commitment to the protection and maintenance of Huntsville's rural small town character and vibrant downtown, both of which are valued by the community.

Environmental Considerations

Goal 1: Environmental Protection: The community will protect, preserve, restore, and enhance the terrestrial and aquatic environments and biodiversity of Huntsville and surrounding area by being responsible stewards of the environment.

Relevant Policies/Legislation/Resolutions

- Provincial Policy Statements
- Planning Act, R.S.O. 1990, cP.13
- District of Muskoka Official Plan
- Town of Huntsville Official Plan
- Zoning By-law 2008-66P, as amended

Attachments

- [Attachment #1: Request for Application to be Brought Back to Committee](#)
- [Attachment #2: Duke Engineering Letter - July 8, 2021](#)
- [Attachment #3: Duke Engineering Letter - August 5, 2021](#)

Consultations

See Report [DEV-2020-30](#) for attachments containing comments noted above.

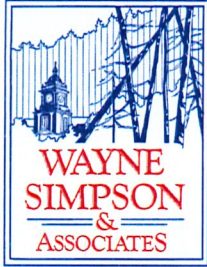
Respectfully Submitted: Richard Clark, Manager of Planning

Manager Approval (if required): _____

Director Approval: Kirstin Maxwell, Director of Development Services

CAO Approval: _____

Attachment #1 - Request for Application to be Brought Back to Committee



Planning and Development Consultants

August 4, 2021

BY EMAIL

Richard Clark, MCIP RPP
Manager of Planning
Town of Huntsville
37 Main Street East
Huntsville ON P1H 1A1

Dear Richard:

RE: **Application for Zoning By-law Amendment
DG Farm at 70 Glen Acres Road
Assessment Roll No. 4442-020-015-00800
(Owners: Doug & Gayle Wheeler)**

The purpose of this letter is to summarize the progress made in respect to the zoning application filed on behalf of Doug & Gayle Wheeler on January 13th, 2020, the purpose of which is to add a *'private functions venue'* as a permitted accessory use on this operating farm property.

My recommendation was that the new 'accessory permitted use' be described in the amending by-law as follows:

Private Functions Venue shall mean the accessory use of lands and a horse barn as a venue for private functions, such as for weddings, family reunions, retirement parties, community events, or similar private events limited to the period between May 1st and October 31st in any calendar year.

The private functions venue will become a component of the farm's business operations. The use will take advantage of the utility of the barn, which is unused from spring to fall when the horses stabled there during the winter are let out to pasture or kept in the fenced paddock areas.

The private events venue will also augment the recreational and educational opportunities currently presented by this equine farm, which currently include day visits by special needs children (to see the horses), walks and horse drawn wagon rides along existing trails. In the winter sleigh rides are proving to be a great way for individuals or groups to socialize, while enjoying the outdoors.

At the public meeting on March 11th, 2020 and the Planning Committee meeting on April 14th, 2021 the decision of the Committee was to defer the application pending receipt of additional information. A purpose of this letter is to provide that information.

Floodplain

The property is zoned in large part 'NR1-Natural Resources Floodway' and 'RU2-Rural Two'. The horse barn that will be used as the venue for private functions is situated in the 'NR1 Zone'. A 'farm' is not listed as a permitted use in the NR1 Zone, but because the current agricultural use was legally established before the 'NR1' zoning was applied and because the farm has operated continuously in the intervening years, it is a legal non-conforming use afforded the rights of continuance of use under Section 34(9) of the *Planning Act*.

According to Schedule E3 in the Muskoka Official Plan, much of the property is in the floodplain of the Big East River. In reviewing the flood risk mapping for the Big East River, it seems that the two-zone approach (characterized by a narrow band of floodway along the River's edge and a flood fringe situated above and closer to the public road) was suddenly abandoned when it came to this property on Glen Acres Road. Without explanation, the floodway and flood fringe boundaries were melded together along the east side of the Wheeler property.

Because of this anomaly Duke Engineering was engaged to assess the flood risk associated with the proposal and asked to provide recommendations to mitigate any potential adverse impacts. In his letter report dated December 6, 2019 (which as previously provided to Committee) Dan Duke concluded that the subject lands are **"in the flood fringe with a flow of zero velocity and would not be subject to the effective flow of the Big East River. As such, structures built in the flood fringe would not be at risk to any scouring or erosion effects from a flood at or near the regulatory flood elevation."** Mr. Duke's recommendations and conclusions included:

- *That the existing barn structure may remain, provided a depression is excavated in the flood fringe to compensate for the change in the volume that the barn occupies below the regulatory flood elevation.*
- *Zero velocity from floodwaters in the flood fringe will not present any risk of scour or erosion to the existing barn.*
- *The dead weight of the barn above the regulatory flood elevation will resist any uplift force that occurs during any flood events to the regulatory level.*

In response to your Staff Report dated April 14, 2021, Mr. Duke was engaged a second time to further consider if the area where the barn is situated should better be described a part of the 'floodway'. A copy of this second review, dated July 8, 2021, is attached. He begins his summary by acknowledging that **"the barn [is] now outside of the [PSW] wetland boundaries"** established by the MNRF and he refers to the mapping revised by the MNRF on May 5, 2021.

Mr. Duke points out that *"the barn is located approximately 350m from the Big East River channel"* and *"there exists an old oxbow on the river channel that has been cut off through erosion long ago and would no longer be considered part of the river channel."* He adds that *"this oxbow does flood during significant events but [it] will not become a separate channel of the Big East River."* The aerial photograph attached to the new 'Duke Report' clearly shows that the direction of flow of flood waters is away from Wheeler

property. Mr. Duke records his observation that *“the lands between the river and the barn are well forested (which would significantly impede the flow velocity)”* and *“he did not observe any evidence of scour, erosion or cut channels through the bush from the recent 2019 flood”*.

Through his quantitative analysis Mr. Duke concluded that the low velocity at the barn must be well below $1\text{m}^3/\text{s}$, which is vastly different than the recorded flow of $230\text{m}^3/\text{s}$ at the hydrometric data for the Williamsport gauge (02EB013). He states: *“there is no evidence to indicate that flow velocities at the barn from [the] 2013 and 2019 near 100-year flood[s] will be significant enough to result in any engineering related design concerns [for the barn].”*

A ‘floodway’ is defined in the Provincial Policy Statement (2020) as meaning ***“the portion of the flood plain where development and site alteration would cause a danger to public health and safety or property damage.”*** Based on the low flow velocities it can be concluded that the barn is not within a ‘floodway’ because, as Mr. Duke has unequivocally stated, the barn can withstand a regulatory flood event. Property damage to the barn cannot be expected.

With respect to the depth of the flood waters, it can be noted that neither the ‘development of a barn’ nor the ‘introduction of the private functions venue’ will result in any increased danger to public health and safety. Doug Wheeler has resided on the property for more than 40 years without any access or egress problems. No public health and safety concerns arising from flood waters can be expected with the private events venue because of its seasonal nature.

In my opinion, for the purposes of the proposed development and the new land use, the area of the barn should be deemed ‘flood fringe’. Such would be consistent with the definition of floodway and the purpose and intent of the policies in the PPS. Mr. Duke has spoken with MNRF staff and I understand there is agreement in that regard.

Early in 2019 Hatch Ltd. (‘Hatch’) a large international multi-disciplinary engineering firm completed its engineering management technical report on the flood risks within the Muskoka River watershed. The report was completed for the sole and exclusive benefit of The District Municipality of Muskoka for *“the sole purpose of updating flood line mapping for particularly vulnerable portions of the Muskoka River flood plains.”* The Hatch Report was presented to the District Council on February 18th, 2020. The new mapping prepared by Hatch did not include the property at 70 Glen Acres Road, but instead was confined to the narrow channel of the Big East River just upstream from the subject property, and then along the near shoreline area on Lake Vernon below. The fact that the Wheeler Farm on Glen Acres Road was not mapped under the Hatch flood risk assessment suggests that the area was not deemed a *“particularly vulnerable portion”* of the floodplain. The above stated observations of Duke Engineering support this conclusion. The Hatch mapping (which has no official policy or legal effect) is available at <https://muskoka.civicweb.net/filepro/documents/35194>.

Accordingly, the comments in my letter to the Town on January 13th remain unchanged and the conclusions of Dan Duke are still valid. The importance of ***“preventing the loss of life, property damage, and social disruption in the event of a regulatory flood”*** are respected by the Application. The primary function of the barn is the stabling of horses during the late fall to early spring and as documented in the Duke Engineering reports the weight of the barn is such that there is no potential for uplift or unacceptable horizontal water shear forces during a regulatory flood event. Those facts combined with the openness of the barn should address any concern that the barn might be **damaged** during a flood event. Further, by limiting the period in which the private functions venue can operate to the period

between May 1st and October 31st in any calendar year there is no potential for **loss of life or social disruption**.

Boundary of the Provincially Significant Wetland

That part of the property occupied by the barn was shown on Schedule C to the Official Plan as being in a Provincially Significant Wetland ('PSW').

Since making the Application the Ministry of Natural Resources and Forestry has confirmed that the boundary of the PSW needed correction. Attached is an email from Adam Wakefield, MNRF District Manager of the Parry Sound Office, dated May 3, 2021, confirming that the anthropogenic structures (including the barn) and areas of pasture will be removed from the PSW. Two days later the attached map showing the boundary adjustment was provided by MNRF.

As determined by Richard Keevil (the biologist engaged by the Wheelers) the horse barn is situated on "adjacent lands", which are defined as being within 120 metres of a PSW. According to Official Plan section C1.3.2 b) development and site alteration is permitted on adjacent lands provided it has been demonstrated that their ecological function has been evaluated and it has been concluded that there will be no negative impact on the natural features area or its ecological functions. In his report, Richard Keevil gave his professional opinion that the ecological functions of the PSW have not be negatively affected by the farming activities or by the location of the barn. He adds that the same can be expected from *"the addition of low impact and sustainable activities such as weddings, educational and scientific studies"*.

Zoning to Recognize Barn Location

The barn is nowhere close to any of the lot lines, so I am not sure why setbacks for the building need to be incorporated into the proposed zoning by-law amendment. But if required, the following minimum distances have been conservatively determined from the Town's interactive mapping : 80 metres front yard setback, 240 metres rear yard setback, 160 metres to the eastern lot line and 200 metres to the westerly limit of the property.

Parking

As previously reported, the Wheelers will require that the organizers of all licenced or large events will require that all guests be transported to the venue by a chartered bus service. As is the standard practice of owners of similar venues, the busing arrangements will be the responsibility of the event organizer. Attached is an information sheet from a similar farm property in the Orillia area known as 'South Pond Farms'. You will note that busing is cited as a service to be locally contracted by any event organizer. Busing will be required for public liability reasons and to ensure all guests leave the property by the contracted time.

Because busing to the venue will be organized separately, there will be no routine parking and departure points for patrons. It is expected convenient locations will be determined on an event-by-event basis for local patrons and that out-of-town guests will be picked up at area hotels.

When parking is required on site, it can be safely accommodated along the east side of the more than 120-metre-long private driveway where the distance between the driveway and the fence line is at

minimum 6 metres. Accordingly, about forty (40) cars can be comfortably accommodated off the driveway, with no need to encroach upon the adjacent pasture. Given the seasonal nature of the venue and the desire to keep the farm 'in character', there should be no requirement to provide dedicated 'parking lots'.

As stated in the previously submitted Traffic Brief by JD Engineering, Glen Acres Road can safely accommodate the anticipated future traffic volume, including the additional traffic intermittently generated from the proposed rezoning; and no infrastructure improvements are required on Glen Acres Road as a result of the proposed rezoning. Because the Owners will require that event organizers bus guests to the venue, the traffic impacts on Glen Acres Road will be negligible and respectful of the neighbourhood.

Noise

Doug and Gayle Wheeler spoke to the Committee about some of the operational matters including how events at the venue will be responsibly conducted to respect the quiet enjoyment of the community. First, the Wheelers live on the property and are invested in the neighbourhood. They will be responsible for the operation of the venue and intend to remain good neighbours.

Doug and Gayle are familiar with the requirements in Huntsville By-law No. 2018-155, being a by-law to control noise, including the production of noise from an 'electronic device' (broadly defined in the Noise Control By-law as including the amplification of sound, including devices used in the reproduction of music and speech, amongst other things) between the hours of 11:00 p.m. and 7:00 a.m. and the prohibition of noise resulting from yelling, shouting, hooting or similar, made by a person between 9:00 p.m. and 7:00 a.m. Every event organizer will be advised of the municipal requirements and, by the rental contract, will be required to strictly adhere to these requirements. Because the Wheeler home is closer to the venue than any of their neighbours, Doug and Gayle will be readily able to require compliance. If the requirements of the contract are not adhered to, a \$500.00 deposit will be forfeited by the event organizer and the infraction may jeopardize the organizer's opportunity to rent the venue in the future.

To assist with noise abatement the Wheelers have commenced a tree planting program in the area between the venue and the nearest neighbours to the north. All openings along the roof line of the barn are presently being filled in to baffle any noise that might otherwise be emitted from the barn.

Sanitary Sewage Facilities

The private individual sanitary sewage system on the property was designed and constructed to service only the house. Until such time as a second sewage system might, sometime in the future, be installed to serve permanent washrooms, portable toilets will be used for the events venue. The feasibility and costs for the two options have been explored by the Wheelers.

Consultation with MNRF

The resolution to defer that was passed by the Planning Committee in March 2020 required that there be further consultation with the MNRF. As documented above, the consultation has resulted in the boundaries of the PSW being adjusted in such a manner as to exclude the barn.

Summary

In summary the proposed zoning amendment to permit a seasonal venue for private functions on the DG Farm is a reasonable and appropriate use in that it will contribute to the sustainability of the farm, while at the same time provide new social, recreational and educational opportunities that take advantage of the property's unique setting adjacent to a Provincially Significant Wetland.

The conclusion of the technical report by Keevil Consulting and the subsequent agreement by the MNRF to remove the anthropogenic structures means that the horse barn is only on 'adjacent lands' and as concluded by Rick Keevil and Dan Duke no adverse impact on the wetland (or its ecological functions) and no unacceptable flood risks can be expected.

In my professional opinion the zoning amendment should be appreciated as minor in nature and effect, but important to the farm and community. The Town's consideration of the By-law next week would be greatly appreciated. The demand for event space is growing and the lack of supply has frustrated many of those planning weddings or similar events over the past 18 months.

Yours truly,

WAYNE SIMPSON & ASSOCIATES



Wayne Simpson, MCIP, RPP
Principal Planner

Cc. Mayor Karin Terziano
Planning Chair, Councillor Nancy Alcock
Doug Wheeler & Gayle Griffiths

Wayne Simpson

From: Wakefield, Adam (MNRF) <Adam.Wakefield@ontario.ca>
Sent: May 3, 2021 1:50 PM
To: Wayne Simpson
Cc: gaylevgriffiths@gmail.com
Subject: RE: Wheeler Farm at 70 Glen Acres Road & PSW

Dear Mr. Simpson,

This email is in response to the email sent to MPP Norm Millar's constituency office on November 5, 2020.

The Ministry of Natural Resources and Forestry's (MNRF) role in wetland evaluation is to review and confirm that wetland evaluations and boundary refinements are completed in accordance with the provincial framework (OWES), and to update information in the provincial evaluated wetland database known as Land Information Ontario (LIO), a mapping tool, which is used by municipalities and others to inform planning decisions. MNRF generally does not conduct wetland evaluations on private land.

However, landowners whose properties have wetland mapping with obvious errors (e.g. inclusion of structures which would not meet the definition of a wetland) can bring this to the attention of the local MNRF District office and request a desktop review of the wetland boundary.

It has come to our attention that there are at least two buildings and areas of pasture that were not considered in the original boundary amendment request. We have acquired more recent aerial imagery which will enable us to remove anthropogenic structures and areas of pasture from the wetland boundary on the subject property. We are working toward excluding these areas from the Big River East Delta Provincially Significant Wetland (PSW). These changes will be reflected in the wetland evaluation file, the mapping will be updated in LIO and the municipality will be notified of the change.

As outlined in the September 22, 2020, email, wetland boundaries are based, first and foremost, on the presence and relative abundance of wetland plant species using the 50% wetland vegetation rule. Additional technical information on the 50% rule and the delineation of wetland boundaries can be found in the OWES Southern Manual on pages 17-34.

Wetland evaluations are considered open files. For the Ministry to consider a change to the designation or boundary of a wetland, a re-evaluation must be completed by a qualified professional in accordance with the provincial framework (OWES) and submitted to the Ministry for review. This submission must provide clear documentation of the rationale for why the boundary should be amended. Generally, this would include but is not limited to the following information:

- Names and qualifications (i.e. OWES trained) of those submitting the updated information for the wetland file/ boundary adjustment
- Updated mapping depicting the boundary adjustment based on the 50% wetland vegetation rule and other relevant information such as substrate and soils as described in OWES.
- Background for why the adjustment is proposed along with any accompanying documentation/source information

Anything you can do to assist in having the PSW boundary sufficiently changed or in having the MNRF otherwise remark to the Town of Huntsville that it has no objection to the location of the horse barn and associated structures would be a tremendous help.

While I know Doug and Gayle have been in communication with your office on numerous occasions, here again is their contact information.

Sincere regards,
Wayne



Gayle & Doug Wheeler
(705) 571-3272 Mobile
(705) 380-1483 Home
gaylevgriffiths@gmail.com
70 Glen Acres Road
Huntsville, ON

WAYNE SIMPSON, MCIP, RPP | Principal Planner
WAYNE SIMPSON & ASSOCIATES | Planning and Development Consultants
3-76 King William Street | **HUNTSVILLE, ON P1H 1E4**
Tel: (705) 789-9092 | Fax: (705) 789-9094 | Cell: (705) 706-0301

DUKE Engineering

CIVIL • STRUCTURAL ENGINEERS

July 8, 2021

Project No. 19-139-01

Wayne Simpson & Associates
76 King William Street, Suite 3
Huntsville, Ontario
P1H 1E4

Attention: Wayne Simpson, MCIP, RPP,
Principal Planner

Dear Mr. Simpson:

Re: *Wheeler Barn*
70 Glen Acres Road
Town of Huntsville

Further to my report of December 6, 2019, I have reviewed the Town of Huntsville Staff Report prepared by Richard Clark, Manager of Planning dated April 14, 2021 and have the following comments.

Mr. Clarke notes that the barn is an area as defined by the MNRF as a floodway with flow velocities in excess of 1m/s. We are in receipt of a Big East Wetland Complex Boundary Adjustment from the MNRF dated 05/05/2021 (copy attached). The plan shows the barn now outside of the wetland boundaries, however the elevation of the surround lands as provided by RM McDermott, OLS remain.

Based on the attached Google map, the barn is located approximated 350m from the Big East River channel. There exists an old oxbow on the river channel, however this has been cut off through erosion long ago and no longer would be considered part of the river channel. This oxbow does flood during significant events but will not become a separate channel of the Big East River. While the Town has commented that the area around the barn is considered to be a floodway vs a flood fringe, the lands between the river and the barn are well forested, which would significantly impede the flow velocity. I visited the site on June 24, 2021 and I did not observe any evidence of scour, erosion or cut channels through the bush from the recent 2019 flood. As such, while the Town might be calling this a floodway, there is no evidence to indicate that flow velocities at the barn from the 2013 and 2019 near 100 year flood will be significant enough to result in any engineering related design concerns. The R.M. McDermott OLS survey shows the lowest grade around the barn is 285.2m ASL, with the Barn floor at 285.61m. Given the flood elevation of 286.68 that was used for this property, this would indicate a floodwater depth of 1.48m or 4'-10 $\frac{1}{4}$ " at the deepest point during the design flood. If we were to assume a minimum flow velocity of 1m/s at an average depth of 1.5m between the river and the barn for a width of 350m, the flow volume would be approximately 525m³/s. By comparison, if we look at the maximum daily discharge for the Big East River at the hydrometric data for Williamsport gauge (02EB013), the highest flow on record was 230m³/s on April 20, 2013. Based on this simple review, we know the flow velocity at the barn must be well below 1m/s.

The Town report also noted a concern with providing an excavation equal to the volume of the barn below the 100 year flood elevation. I have noted this as good engineering design practice so as to provide no net effect in the flood volumes post construction. This is not an MNRF requirement. If infilling lands in the flood prone areas was not kept in balance, on a large scale, there would less volume for flood waters below the 100 year floor contour, which theoretically would result in increased flood contours. Following

Wayne Simpson & Associates

Wheeler Property – 70 Glen Acres Road, Huntsville

the 2019 flood, the Town did reconstruct Glen Acres Road. It is unlikely that a fill/cut volume for work on Glen Acres Road was anticipated in the work, and thus the Town likely completed infilling in the flood prone areas thereby technically reducing the volume provided for flooding.

As noted in my December 6, 2019 report, the flow velocity of the flood waters at the Wheeler barn would be negligible and would not warrant additional design considerations for foundation scour or horizontal water flow shear forces on the structure. In regard to mitigating infill of the flood area by the volume of the barn, if the Town is opposed to this work, then it is not required. As noted above, this was recommended as good engineering practice such there is not net effect pre/post construction in the flooded lands. It is not an MNRF requirement for a project of this size and is rarely suggested or complied with, even by Municipal, District or Provincial authorities in their large capital works projects.

I trust this satisfies your immediate requirements. Should you have any questions or require additional information, please do not hesitate to contact me.

Yours truly,






Dan Duke, P.Eng.
Duke Engineering

Attachments MNRF Wetland Boundary
 Government of Canada – Hydrometric Data

\\DUKENAS1\DukeEngineering\Project Files\2019\19-139 Gayle & Doug Wheeler\19-139-01 Wheeler Barn\Correspondence\19-139-01 Wheeler - Flood Mapping Study\19-139-01 W Simpson - Letter - July 8, 2021.doc

Big East Wetland Complex Boundary Adjustment




-  Big East Wetland Complex revised boundary
-  Area removed
-  Wetland Boundaries



Map Produced By : RIAU
Date Produced : 05/05/2021
Map Projection : (Lambert Conformal Conic)
Data Sources : (Base Data - Land Information Ontario)
Map Purpose : Wetland boundary adjustment

This map is illustrative only. Do not rely on it as a precise indicator of routes or locations, nor as a guide to navigation.

0 5 10 20 30 40 m





Measurement

| Meters

Measurement Result

350.1 Meters

Clear

Press CTRL to enable snapping



Annual Maximum and Minimum Daily Discharge Data for BIG EAST RIVER NEAR HUNTSVILLE (02EB013) [ON]

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

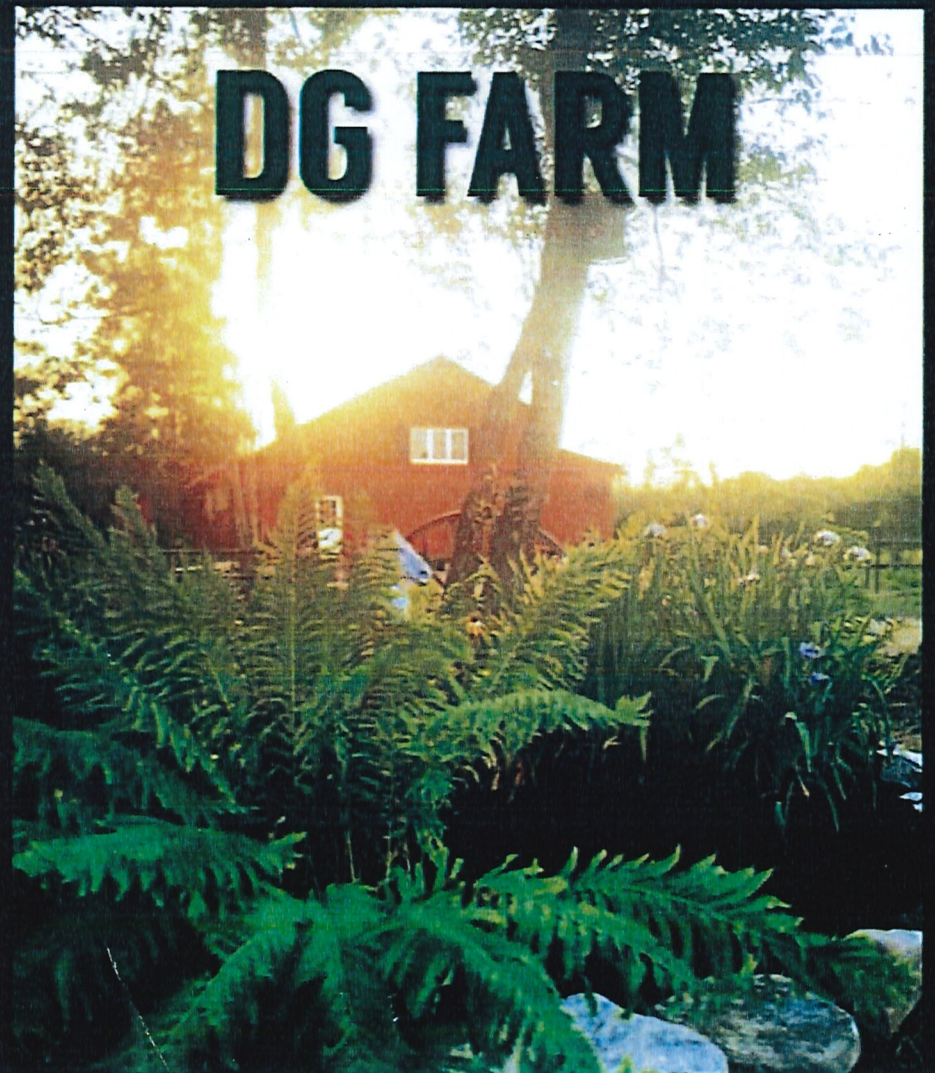
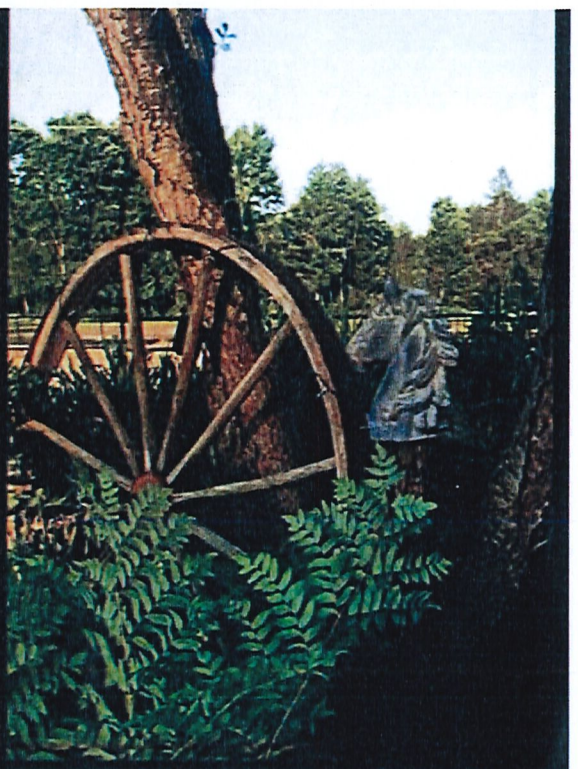
This table provides annual maximum and minimum daily value for a station.

Maximum Daily Discharge		Minimum Daily Discharge	
Date	Value (m ³ /s)	Date	Value (m ³ /s)
1973		1973	
1974-04-16	86.4	1974-09-10	2.14
1975-04-26	75.9	1975-07-10	1.08
1976-04-01	98.8	1976-10-30	1.59
1977-04-01	59.7	1977-07-29	1.28
1978-04-29	68.2	1978-07-29	1.59
1979-03-26	99.7	1979-07-24	2.49
1980-04-10	147	1980-03-10	2.44 B
1981-09-03	143	1981-08-03	2.77
1982-04-18	132	1982-08-12	2.19
1983-05-09	78.8	1983-08-03	1.52
1984-04-17	61.1	1984-08-12	1.75
1985-04-23	168	1985-08-17	2.83
1986-04-02	115	1986-08-18	2.56
1987-03-31	63.3	1987-08-13	0.982
1988-04-07	108	1988-07-18	0.887
1989-03-30	63.1	1989-08-17	1.12
1990-11-29	59.5	1990-08-15	1.35
1991-04-09	117	1991-07-16	1.34
1992-04-23	126	1992-06-29	1.94
1993-04-11	74.5	1993-03-16	2.46 B
1994-04-17	69.1	1994-02-19	2.22 B

Maximum Daily Discharge

Minimum Daily Discharge

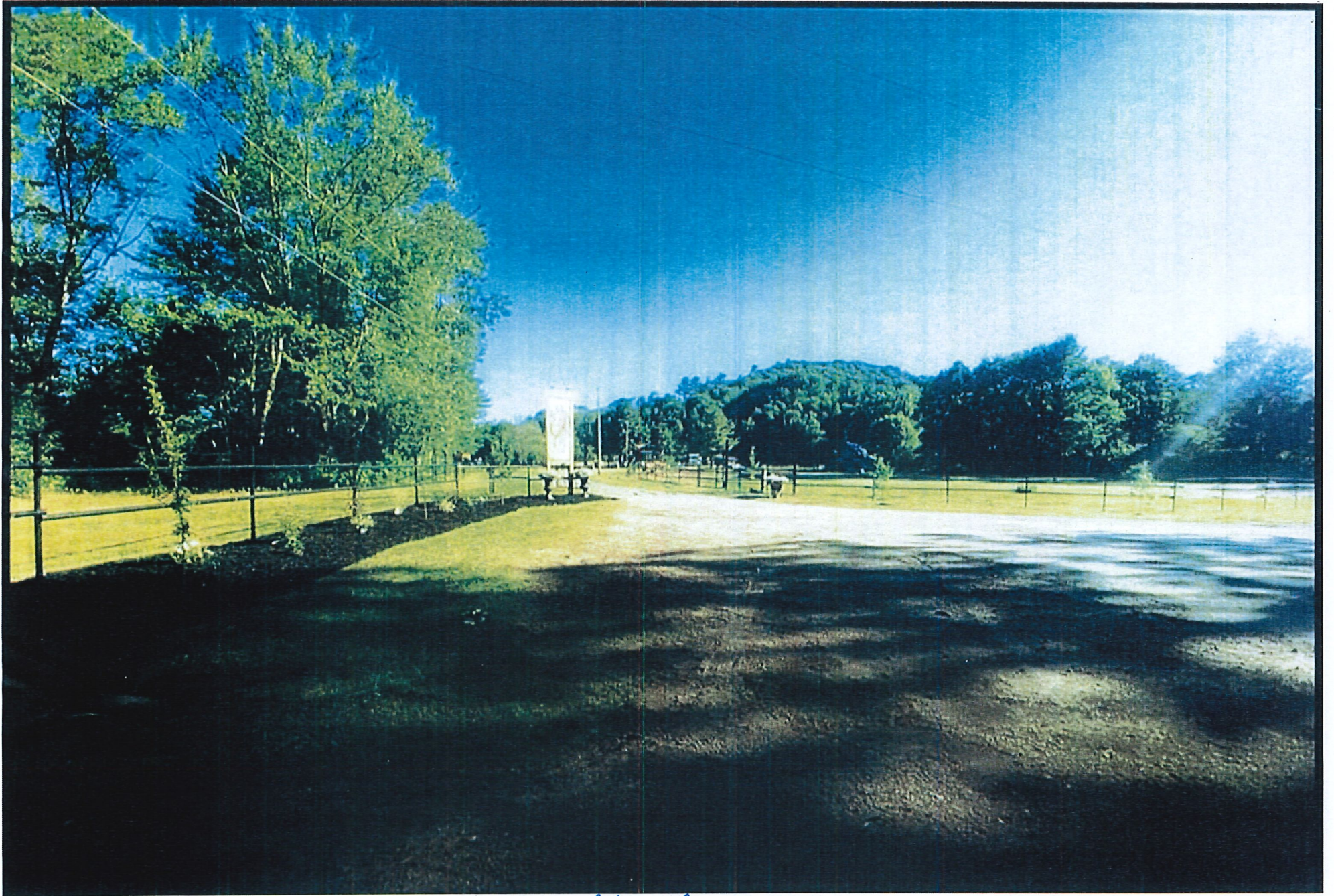
Date	Value (m ³ /s)	Date	Value (m ³ /s)
1995-11-12	102	1995-06-28	3.04
1996-04-22	116	1996-09-11	4.08
1997-04-08	104	1997-08-15	0.945
1998-04-01	156	1998	
1999-04-08	50.8	1999-08-05	1.65
2000-02-29	36.0 B	2000-10-06	1.11
2001-04-13	110	2001-08-15	0.780
2002-04-17	122	2002-08-12	0.880
2003-03-30	80.7	2003-08-15	1.63
2004-03-31	96.8 B	2004-09-26	0.974
2005-04-08	82.0 B	2005-09-11	0.660
2006-04-14	103	2006-09-17	1.32
2007-04-05	73.7	2007-08-22	0.938
2008-01-10	174 B	2008-09-13	3.07
2009-04-05	108	2009-09-21	1.62
2010-12-02	70.0	2010-08-20	1.37
2011-04-12	85.4	2011-09-18	1.07
2012-03-20	96.2	2012-09-04	0.547
2013-04-20	230	2013-08-21	0.936
2014-04-15	131	2014-08-11	2.75
2015-04-21	112	2015-10-08	1.57
2016-04-01	155	2016-08-11	1.08
2017-04-12	126	2017-08-03	3.71
2018-04-27	84.4	2018-07-22	1.25
2019-04-20	168	2019-09-02	1.07
2020-03-31	71.6	2020-07-10	2.68





DG FARM



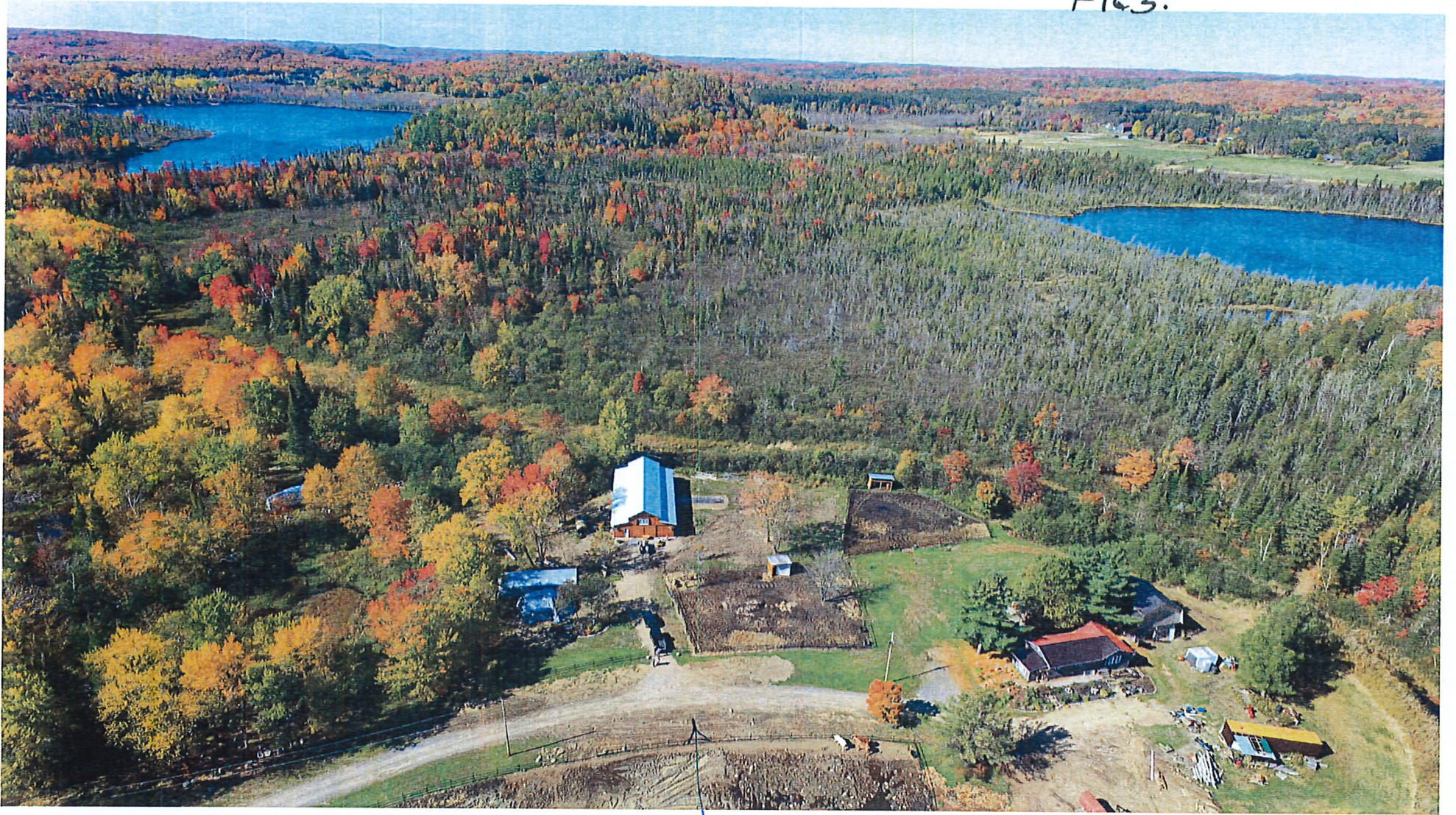


Area available for parking.



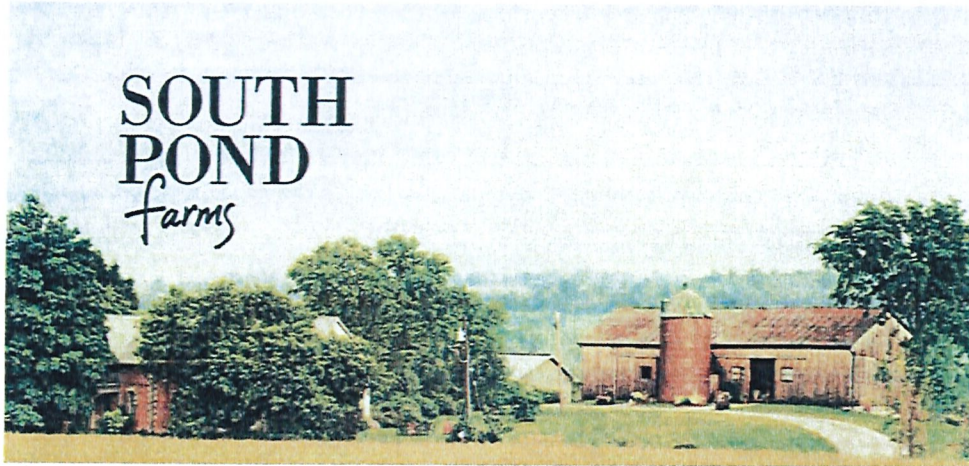
Available for parking

FIG. 3.



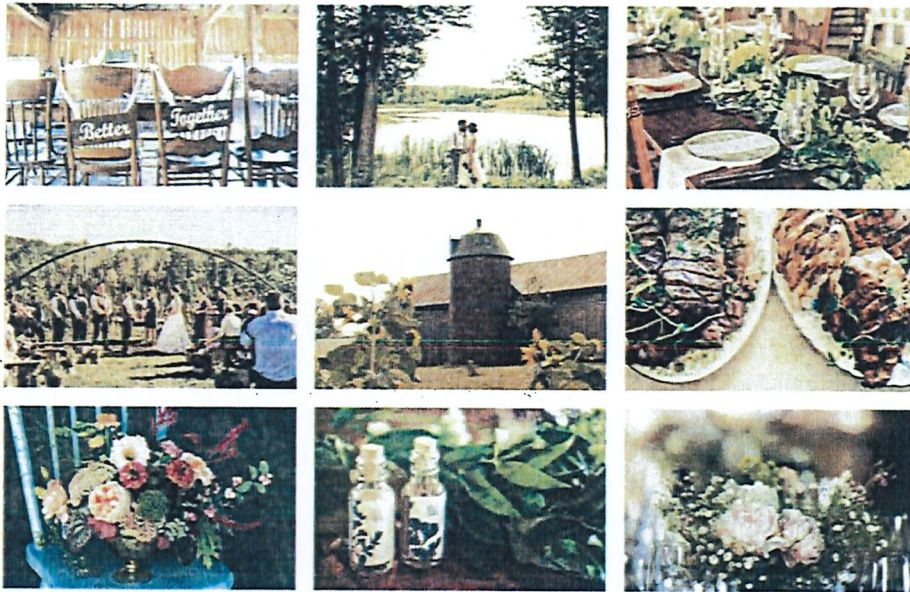
Available for parking.

SOUTH POND *farms*



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Weddings at South Pond

Additional Services

Some additional services we provide include:

- Flowers
- Specialty Signs
- Candles and Other Decor
- Bonfire

We want to make planning your wedding as easy and stress free as possible-by providing as many services as we can. There are some things you will still need, but we want to help by providing you with a list of our preferred vendors who we trust and work with regularly.

Vendors you will still need include:

- Photographer
 - DJ
 - Officiant
 - Bussing/Transportation
-

Attachment #2: Duke Engineering Letter - July 8, 2021

DUKE
Engineering

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July 8, 2021

Project No. 19-139-01

Wayne Simpson & Associates
76 King William Street, Suite 3
Huntsville, Ontario
P1H 1E4

Attention: Wayne Simpson, MCIP, RPP,
Principal Planner

Dear Mr. Simpson:

Re: *Wheeler Barn*
70 Glen Acres Road
Town of Huntsville

Further to my report of December 6, 2019, I have reviewed the Town of Huntsville Staff Report prepared by Richard Clark, Manager of Planning dated April 14, 2021 and have the following comments.

Mr. Clarke notes that the barn is an area as defined by the MNRF as a floodway with flow velocities in excess of 1m/s. We are in receipt of a Big East Wetland Complex Boundary Adjustment from the MNRF dated 05/05/2021 (copy attached). The plan shows the barn now outside of the wetland boundaries, however the elevation of the surround lands as provided by RM McDermott, OLS remain.

Based on the attached Google map, the barn is located approximated 350m from the Big East River channel. There exists an old oxbow on the river channel, however this has been cut off through erosion long ago and no longer would be considered part of the river channel. This oxbow does flood during significant events but will not become a separate channel of the Big East River. While the Town has commented that the area around the barn is considered to be a floodway vs a flood fringe, the lands between the river and the barn are well forested, which would significantly impede the flow velocity. I visited the site on June 24, 2021 and I did not observe any evidence of scour, erosion or cut channels through the bush from the recent 2019 flood. As such, while the Town might be calling this a floodway, there is no evidence to indicate that flow velocities at the barn from the 2013 and 2019 near 100 year flood will be significant enough to result in any engineering related design concerns. The R.M. McDermott OLS survey shows the lowest grade around the barn is 285.2m ASL, with the Barn floor at 285.61m. Given the flood elevation of 286.68 that was used for this property, this would indicate a floodwater depth of 1.48m or 4'-10¼" at the deepest point during the design flood. If we were to assume a minimum flow velocity of 1m/s at an average depth of 1.5m between the river and the barn for a width of 350m, the flow volume would be approximately 525m³/s. By comparison, if we look at the maximum daily discharge for the Big East River at the hydrometric data for Williamsport gauge (02EB013), the highest flow on record was 230m³/s on April 20, 2013. Based on this simple review, we know the flow velocity at the barn must be well below 1m/s.

The Town report also noted a concern with providing an excavation equal to the volume of the barn below the 100 year flood elevation. I have noted this as good engineering design practice so as to provide no net effect in the flood volumes post construction. This is not an MNRF requirement. If infilling lands in the flood prone areas was not kept in balance, on a large scale, there would less volume for flood waters below the 100 year floor contour, which theoretically would result in increased flood contours. Following

Wayne Simpson & Associates

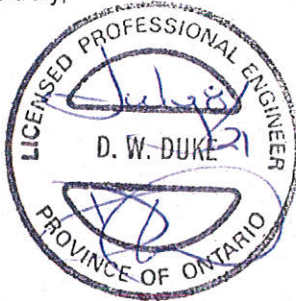
Wheeler Property – 70 Glen Acres Road, Huntsville

the 2019 flood, the Town did reconstruct Glen Acres Road. It is unlikely that a fill/cut volume for work on Glen Acres Road was anticipated in the work, and thus the Town likely completed infilling in the flood prone areas thereby technically reducing the volume provided for flooding.

As noted in my December 6, 2019 report, the flow velocity of the flood waters at the Wheeler barn would be negligible and would not warrant additional design considerations for foundation scour or horizontal water flow shear forces on the structure. In regard to mitigating infill of the flood area by the volume of the barn, if the Town is opposed to this work, then it is not required. As noted above, this was recommended as good engineering practice such there is not net effect pre/post construction in the flooded lands. It is not an MNRF requirement for a project of this size and is rarely suggested or complied with, even by Municipal, District or Provincial authorities in their large capital works projects.

I trust this satisfies your immediate requirements. Should you have any questions or require additional information, please do not hesitate to contact me.

Yours truly,



Dan Duke, P.Eng.
Duke Engineering




Attachments MNRF Wetland Boundary
Government of Canada – Hydrometric Data

\\DUKENAS\DukeEngineering\Project Files\2019\19-139 Gayle & Doug Wheeler\19-139-01 Wheeler Barn\Correspondence\19-139-01 Wheeler - Flood Mapping Study\19-139-01 W Simpson - Letter - July 8, 2021.doc



Big East Wetland Complex Boundary Adjustment



-  Big East Wetland Complex revised boundary
-  Area removed
-  Wetland Boundaries



Map Produced By : RIAU
 Date Produced : 05/05/2021
 Map Projection : (Lambert Conformal Conic)
 Data Sources : (Base Data - Land Information Ontario)
 Map Purpose : Wetland boundary adjustment

This map is illustrative only. Do not rely on it as a precise indicator of routes or locations, nor as a guide to navigation.





Find address or place

Input fields for search



Measurement

1 Meters

Measurement Result

350.1 Meters

Clear

Press CTRL to enable snapping





Government
of Canada

Gouvernement
du Canada

Annual Maximum and Minimum Daily Discharge Data for BIG EAST RIVER NEAR HUNTSVILLE (02EB013) [ON]

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

This table provides annual maximum and minimum daily value for a station.

Maximum Daily Discharge		Minimum Daily Discharge	
Date	Value (m ³ /s)	Date	Value (m ³ /s)
1973		1973	
1974-04-16	86.4	1974-09-10	2.14
1975-04-26	75.9	1975-07-10	1.08
1976-04-01	98.8	1976-10-30	1.59
1977-04-01	59.7	1977-07-29	1.28
1978-04-29	68.2	1978-07-29	1.59
1979-03-26	99.7	1979-07-24	2.49
1980-04-10	147	1980-03-10	2.44 B
1981-09-03	143	1981-08-03	2.77
1982-04-18	132	1982-08-12	2.19
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1988-04-07	108	1988-07-18	0.887
1989-03-30	63.1	1989-08-17	1.12
1990-11-29	59.5	1990-08-15	1.35
1991-04-09	117	1991-07-16	1.34
1992-04-23	126	1992-06-29	1.94
1993-04-11	74.5	1993-03-16	2.46 B
1994-04-17	69.1	1994-02-19	2.22 B

Maximum Daily Discharge

Minimum Daily Discharge

Date	Value (m ³ /s)	Date	Value (m ³ /s)
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1997-04-08	104	1997-08-15	0.945
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2002-04-17	122	2002-08-12	0.880
2003-03-30	80.7	2003-08-15	1.63
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2005-04-08	82.0 B	2005-09-11	0.660
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2008-01-10	174 B	2008-09-13	3.07
2009-04-05	108	2009-09-21	1.62
2010-12-02	70.0	2010-08-20	1.37
2011-04-12	85.4	2011-09-18	1.07
2012-03-20	96.2	2012-09-04	0.547
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2016-04-01	155	2016-08-11	1.08
2017-04-12	126	2017-08-03	3.71
2018-04-27	84.4	2018-07-22	1.25
2019-04-20	168	2019-09-02	1.07
2020-03-31	71.6	2020-07-10	2.68

Attachment #3: Duke Engineering Letter - August 5, 2021



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August 5, 2021

Project No. 19-139-01

Wayne Simpson & Associates
76 King William Street, Suite 3
Huntsville, Ontario
P1H 1E4

Attention: Wayne Simpson, MCIP, RPP,
Principal Planner

Dear Mr. Simpson:

Re: *Wheeler Barn*
70 Glen Acres Road
Town of Huntsville

Further to my letter of July 8, 2021, I have reviewed the subject property with MNRF staff. They are also of the opinion that, given the distance from the Big East River and the fact this area is generally forested land, the flow velocity of the flood waters at the barn will be, for all intents and purposes, zero m/s. Based on this fact, I am still of the opinion that the flood area around the barn would be a flood fringe and not a floodway. This opinion is supported by floods of 2013 and 2019 (the 2013 flood being considered a 100 year event) that did not cause any erosion, scour, deposition of sediment in the bush or on the Wheeler lands that would be typical in a floodway.

We also need to recognize the fact that the building we are discussing is a barn that will not be habitable and therefore there are no fixtures in the structure that are required for habitable space such as a furnace, sanitary plumbing, hot water tank, or any cooking or food storage equipment that would require protection from flooding. We understand the Wheeler home has existed for more than 40 years and the construction of the barn does not create any increased risk from flooding to the long-established dwelling.

In addition, there is no need to flood proof the barn. It is not habitable space; our previous report noted the dead weight of the empty barn above the 100 year flood was greater than the buoyant force of dry wood below and therefore we have no concerns that the structure will "float" off the foundation. As these events are to occur once every 100 years (which could be 200 years apart and still be a 100 year event) the concern with decay of wood in the barn from flooding again is not a concern.

To summarize, the objective of our analysis was to limit the probability that a flood event, similar to those experienced in 2013 and 2019, would result in unacceptable risk of damage or loss of use due to structural failure, lack of structural serviceability, instability or movement in the supporting medium, impact to areas beyond the building of concern, health related illness due to indoor conditions in contact with moisture, risk of injury due to tripping, slipping, falling or drowning or increased risk of injury caused by a fire or explosion. The barn is in the flood fringe. During flooding events, portions of the barn will flood and there may be damage to contents in the building, but the structure itself will not be impacted by the

Wayne Simpson & Associates
Wheeler Property – 70 Glen Acres Road, Huntsville

flooding and as it not habitable, there will be no increased risk to the persons habituating the dwelling during those events.

I hope this satisfies your immediate requirements. Should you have any questions or require additional information, please do not hesitate to contact me.

Yours truly,



Dan Duke, P.Eng.
Duke Engineering

\\DUKENAS\DukeEngineering\Project Files\2019\19-139 Gayle & Doug Wheeler\19-139-01 Wheeler Barn\Correspondence\19-139-01 Wheeler - Flood Mapping Study\19-139-01 W. Simpson - Letter - August 5, 2021.doc