July 23, 2026

MTE File No.: 67061

Amy Knapp

Nottawasaga Valley Conservation Authority
8195 8th Line
Utopia, Ontario L0M 1T0

Dear Amy,

RE: 144 Mary Street Creemore
Cumulative Impacts Assessment Brief

We are pleased to present this Cumulative Impacts Assessment Brief in support of the proposed lot severance and development of 144 Mary Street, Creemore, Township of Clearview. The subject lands are within an existing developed residential neighbourhood. The lot comprises 0.26ha and is located at the southwest corner of the Mary Street and Caroline Street East intersection. Refer to the appended Site Location Plan, **FIG1.**

The site consists of flood hazards associated with the Mad River, located approximately 434m to the south. The Upper Mad River begins just east of the confluence of Noisy River and Mad River and extends to the east under County Road 9, along the southern limit of the Village of Creemore, before reaching its downstream limit 1km east of Centreline Road, west of Glencairn.

Due to the sites proximity to the Mad River and its existing floodplain limits, the Nottawasaga Valley Conservation Authority (NVCA) and Township of Clearview have requested a Cumulative Impacts Assessment to demonstrate any negative flood hazard impacts to the surrounding properties associated with the severance and development of 144 Mary Street, Creemore.

The following background information assisted in the preparation of this Cumulative Impacts Assessment:

- 2D HEC-RAS Hydraulic Model for Upper Mad River Flood Hazard Mapping (MadRiver.prj), prepared by Aquafor Beech Limited for NVCA, dated March 2024.
- Topographical Survey of 144 Mary Street, Creemore, prepared by WMI & Associates Limited (now MTE Consultants Inc.) dated May 2025.
- Severance Sketch, prepared by Morgan Planning & Development, dated June 2, 2026.
- Concept House Layout, prepared by Ed Leimgardt Contracting, received June 11, 2026.
- Amended Comments for Pre-Consultation, prepared by NVCA, dated April 21, 2026.
- Geodetic tools and data – GPS-H, Natural Resources Canada, accessed July 2026, webapp.csrs-scrs.nrcan-rncan.gc.ca/geod/tools-outils/gpsh.php?locale=en
- Simcoe County, Open GIS, opengis.simcoe.ca, accessed July 2026.

A two-zone floodplain management concept was established for Creemore as part of the Township of Clearview's Official Plan. The two-zone floodplain concept distinguishes between floodway and flood fringe, with floodway being defined as an area where one of the following criteria is exceeded:

1) a maximum flooding depth of 0.3m;
2) a maximum flooding velocity of 1.7m/s; or
3) a maximum combined depth-velocity product of 0.4m^2/s.

A review of the flooding impacts under the Regulatory Storm Event (Timmins) was examined based on the floodway criteria outlined above. Due to the low flood velocities in the area of the site, flooding depth was determined to be the governing criteria used to assess development applicability. The western and southern perimeter, as well as an isolated pocket at the northeast corner of the property, were determined to meet the definition of floodway due to flood depths exceeding 0.30m. The remaining central portion of the property meets the definition of flood fringe enabling development of a viable building envelope. Refer to the appended **Flood Contour** and **Velocity Maps** comparing the existing and proposed conditions within the area of the subject site which is located at the periphery of the floodplain.

To accurately review the floodplain impacts on the site, a composite surface was required to be generated using both the sites topographic survey data and the hydraulic models DEM surface. To minimize changes to the approved 2D Hydraulic Model, the surveyed elevations were adjusted rather than the DEM surface, which has the same relative impact as adjusting the DEM surface. Since the topographic survey was completed based on the CGVD28:78 vertical datum, the surveyed elevations were required to be lowered by 0.349m to align with the hydraulic model's vertical datum (CGVD2013). Once the vertical datums were consistent, the DEM surface was compared to the surveyed elevations to determine an adjustment factor as per NVCA requirements. Ten (10) DEM spot elevations located within the subject site and surrounding roadways were compared to the topographic survey. From this data, the median of the difference in elevation between the surveyed points and DEM was determined to be -0.06m. As a result, the surveyed elevations were raised by the 0.06m adjustment factor to align the survey with the DEM surface, to create a new composite existing ground surface. Refer to the **DEM Surface Adjustment Plan** and the supporting calculations provided herein.

As per the **Severance Sketch** prepared by Morgan Planning & Development, the subject site is proposed to be severed into two relatively equal sized lots. A **Concept House Layout** was provided by the proponent for the severed lot, and a proposed conceptual grading surface was prepared for comparison against the new composite existing ground surface. The proposed conceptual grading was prepared with consideration for, maintaining development within the flood fringe, minimizing the amount of proposed fill within the flood fringe, sufficient floodproofing of the structure, as well as safe access/egress for vehicles and pedestrians based on the maintenance of less than 0.30m and 0.80m flood depths, respectively. Additionally, impacts to the floodplain associated with the sites proposed fill requirements and opportunities for similar development in the surrounding area were reviewed.

The results of the revised 2D floodplain modelling suggest that the flood limits, depths, and velocities, generally match the results of the original approved model, with only negligible differences being attributable to the site survey data incorporated into the composite surface. As a means of illustrating the results, a 0.30m flood depth contour has been generated which delineates the flood fringe limits where development is permitted. The proposed development of the severed lot is shown to be fully contained within its allowable limits. Safe vehicular access/egress is provided for both the retained and severed lot based on flood depths not exceeding 0.30m on/adjacent to the driveways. Similarly, safe pedestrian access/egress is provided on each lot where flood depths do not exceed 0.80m.

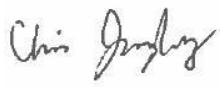
To facilitate the development of the severed lot, fill is required to form a floodproofed building envelope that adequately transitions into adjacent properties including the municipal right-of-way from which safe access/egress is provided. The quantity of fill required is considered to be negligible and has been minimized to reduce impacts to the existing floodplain. Based on the conceptual grading design analyzed for the severed lot, the proposed fill was determined to have no negative flood impacts to neighbouring properties.

Lastly, the surrounding lots were reviewed and determined to have limited options for similar development based on the existing lot fabric (narrow / long lots, minimal frontage), as well as existing flood water impacts – flooding depths >0.30m (34 Caroline Street East). The Creemore Public Library property located at 165 Library Street is the only local property with sufficient area and existing flood depths that would support future development. That said, the existing institutional use of this property does inherently limit future development potential. Refer to the **Local Development Potential** figure.

In summary, the proposed development will be sufficiently floodproofed, provide safe access/egress for pedestrians and vehicles, minimize fill requirements, and will not negatively impact the existing floodplain and more specifically, adjacent properties. Based on the above, we trust you will find this Cumulative Impact Assessment Brief acceptable in support of the proposed severance and development of the 144 Mary Street, Creemore.

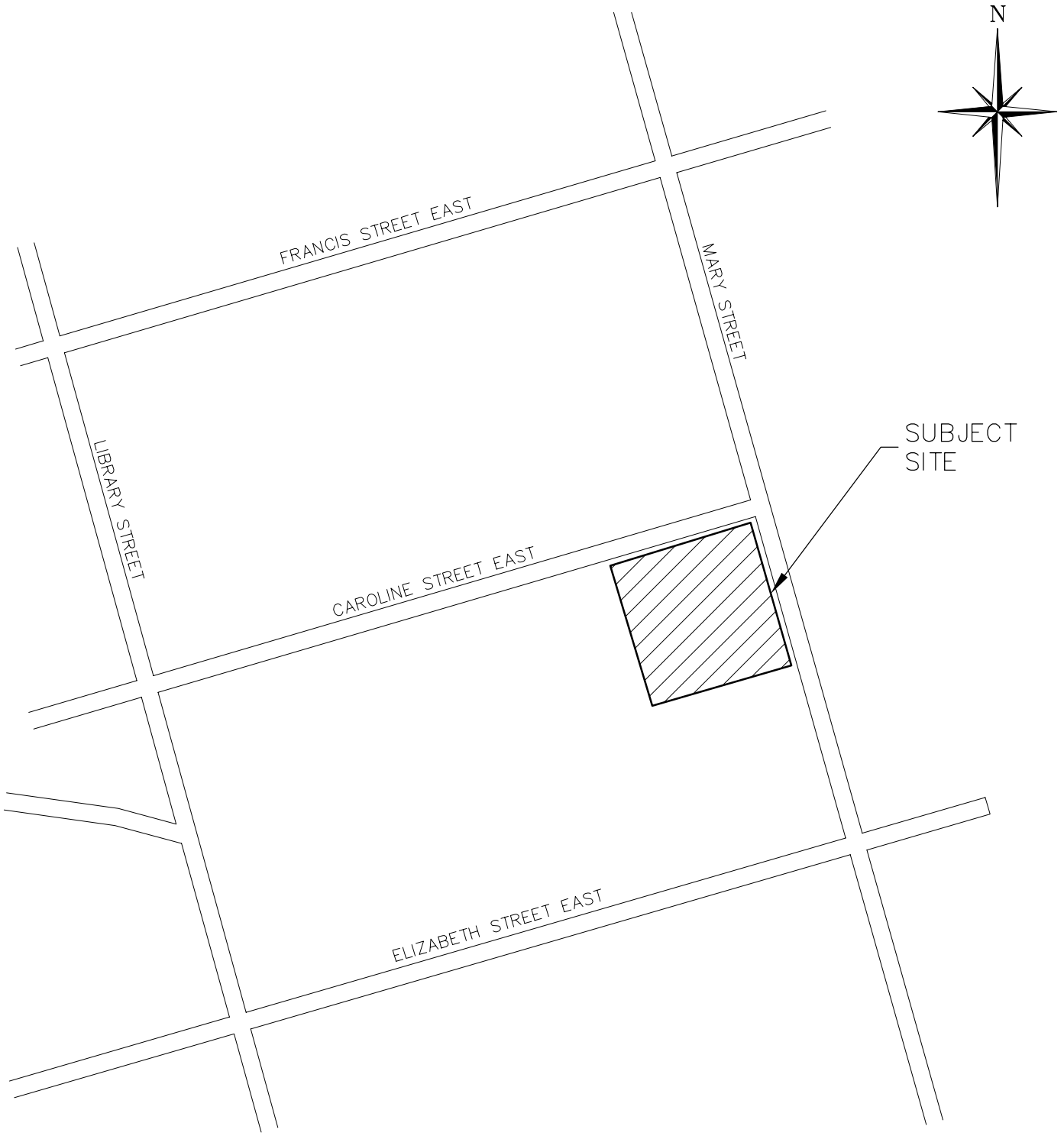
Yours truly,

MTE Consultants Inc.



Chris Jungkunz, P. Eng.
Design Engineer
705-797-2027
cjungkunz@mte85.com

Encl.
cc:



Drawing Title

SITE LOCATION PLAN

Project Title

144 MARY STREET, CREEMORE
TOWNSHIP OF CLEARVIEW

MTE Consultants Inc.
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.mte85.com

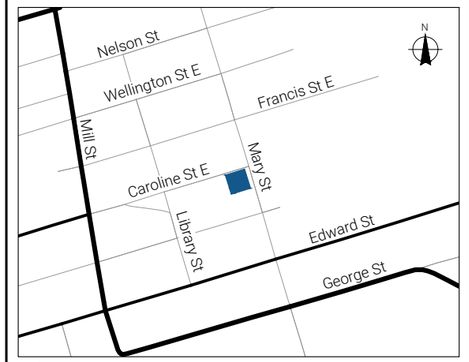
Drawn By	Checked By	Figure No.
CJ	JWL	FIG1
Scale	Project No.	
N.T.S.	67061	

SEVERANCE SKETCH

144 MARY STREET

Part of Lot 9, Concession 4

Creemore, Township of Clearview, County of Simcoe



RESIDENTIAL

RESIDENTIAL

RESIDENTIAL

RESIDENTIAL

Caroline St E
Public R.O.W.

Mary St
Public R.O.W.

Severed Lot
±1,128.1m² (0.28ac)

Retained Lot
±1,471.8m² (0.36ac)

Prop. Severance Line

Ex. Sanitary

Driveway

Existing Dwelling ±102.2m² (1,100.5ft²)

deck

patio

E.P.

E.P.

51.3
47.9
6
3.3
3.3
1.8
6.4
3.4
22.3
2.4
1.4
3.4
3
6
50.9
3.3
10.8
4.1
3.9
2.5
2.8
8.8
6
10.9
1.3
51.2
1.5
0.75
2.3
14.7
2.5
8.4
2.2
2
10.9
28.6
50.7
7
27.8
5.4
11.7
14.1
29
7.6
13.5
15.1
36
51.1

LEGEND

- Subject Lands
  Lot Area: ±2,599.9ha (0.64ac)
  Lot Frontage: ±50.9m
- Severed Lot
  Lot Area: ±1,128.1m² (0.28ac)
  Lot Frontage: ±22.2m
- Retained Lot
  Lot Area: ±1,471.8m² (0.36ac)
  Lot Frontage: ±28.6m
- Floodway
- Building Envelope (Severed Lot)

DRAFT

0 2.5 5 7.5 10 12.5m

Scale: 1 : 300

N

Zone Matrix
ZBL 06-54

	Residential Low Density (RS2) Zone	Severed Lot	Retained Lot
Lot Area (min)	750m²	±1,128.1m²	±1,471.8m²
Lot Frontage (min)	18.5m	±22.2m	±28.6m
Lot Coverage (max)	45%	-	±8.7%
Front Yard (min)	6.0m	-	±14.7m
Interior Side Yard (min)	1.5m	-	±2.3m
Exterior Side Yard (min)	6.0m	-	n/a
Rear Yard (min)	6.0m	-	±27.8m
Deck Setback (min)	0.75m	-	0.75m
Height (max) - Principal Buildings - Accessory Structures	 10.0m 4.5m	-	 <10m n/a
No. of Accessory Structures (max)	2	-	TBD
Accessory Structure Gross Floor Area (max)	64m²	-	TBD
Parking Spaces (min)	2	-	TBD

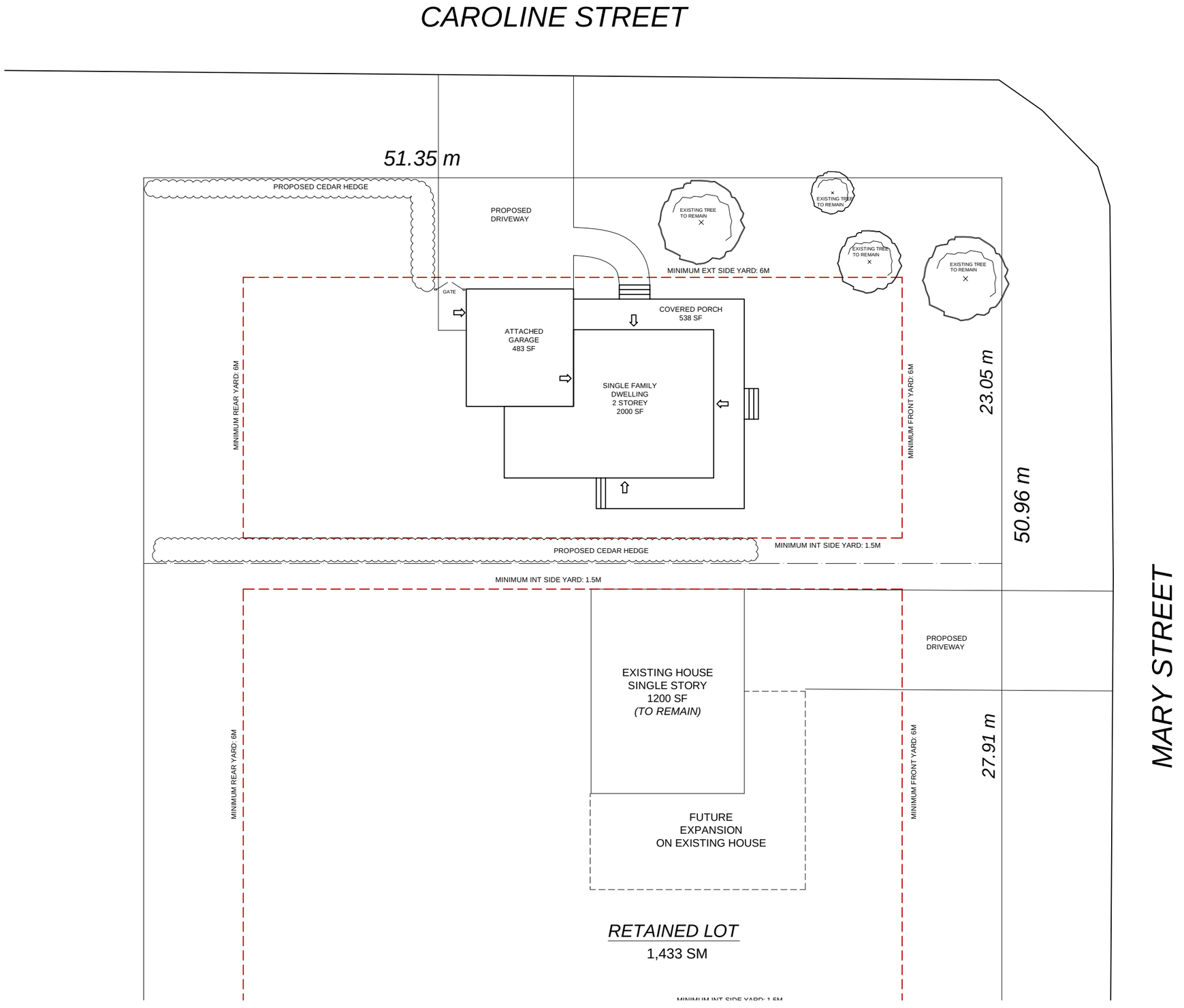
Note: This drawing is for discussion purposes only. Boundary to be verified by an O.L.S.

Source: County of Simcoe interactive map.

Drawn By: A.M. | Date: July 23, 2026 | File No: 1559a

MORGAN
PLANNING & DEVELOPMENT
Phone: (705) 327-1873 Website: morganplanning.ca
101-21 Matchedash Street South, Orillia, ON, L3V 4W4

Concept House Layout



NVCA Floodplain Mapping (Creemore)

Existing Flood Velocity Map

144 Mary Street

0.50m/s velocity contours

0.50

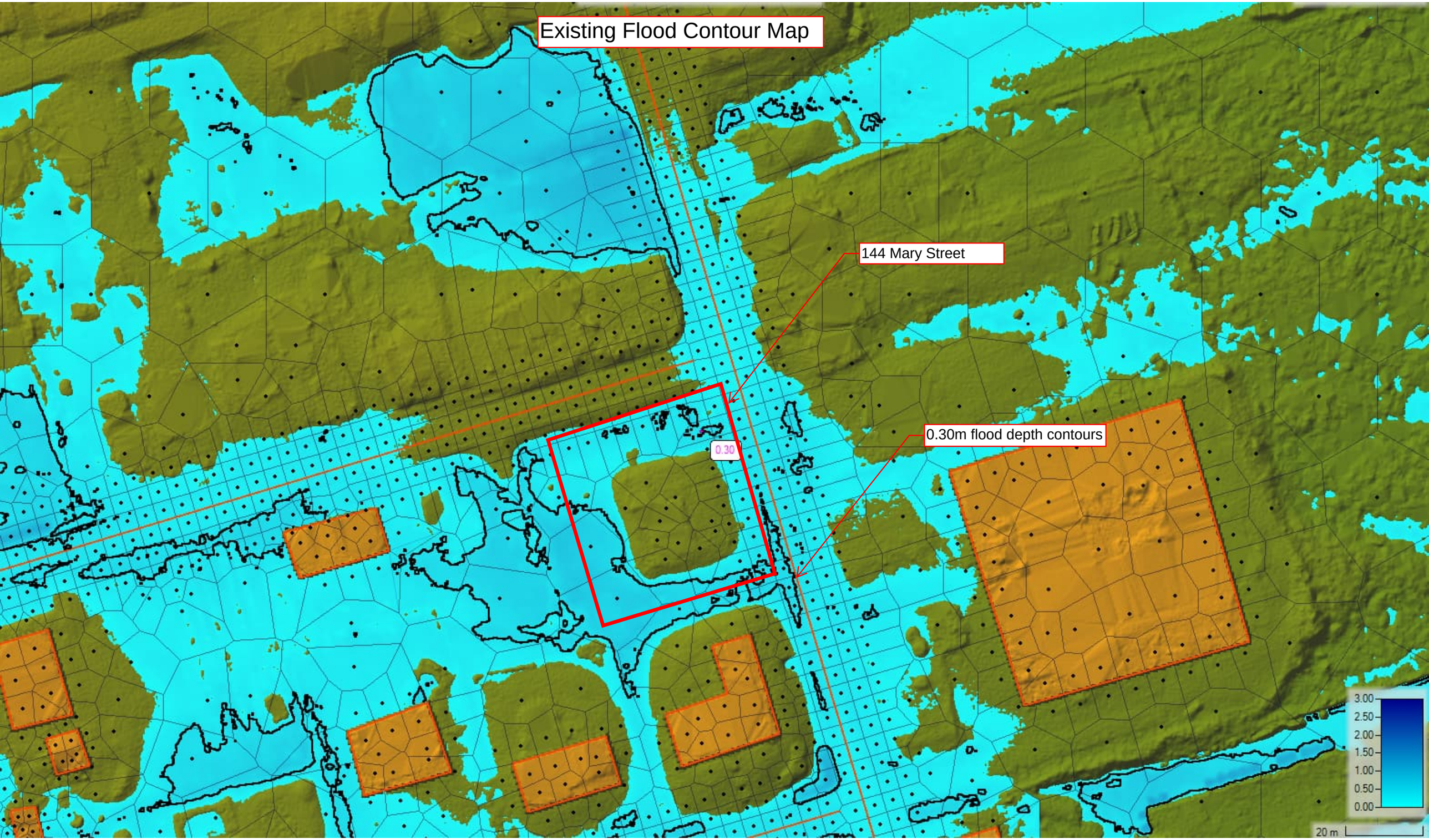
Proposed Flood Velocity Map

144 Mary Street

0.50m/s velocity contours

0.50

Existing Flood Contour Map



Proposed Flood Contour Map

144 Mary Street

0.30m flood depth contours

0.30

3.00
2.50
2.00
1.50
1.00
0.50
0.00

20 m

DEM Adjustment Plan

10)
Survey Elev 257.93
DEM Elev 257.95

8)
Survey Elev 257.60
DEM Elev 257.64

7)
Survey Elev 257.12
DEM Elev 257.17

5)
Survey Elev 257.24
DEM Elev 257.30

9)
Survey Elev 257.34
DEM Elev 257.38

2)
Survey Elev 257.34
DEM Elev 257.53

3)
Survey Elev 257.39
DEM Elev 257.54

6)
Survey Elev 257.22
DEM Elev 257.27

1)
Survey Elev 257.03
DEM Elev 257.35

4)
Survey Elev 257.12
DEM Elev 257.23

260625
DEM Surface
Adjustment Plan

DEM Adjustment Factor
144 Mary Street
Township of Clearview

Job #: 67061
Job Name: 144 Mary Street, Creemore
Prepared by: CJ
Date: 25-Jun-26

Point #	Surveyor's Elev.	DEM Elev. (m)	Difference (m)
1	257.03	257.35	-0.32
2	257.34	257.53	-0.19
3	257.39	257.54	-0.15
4	257.12	257.23	-0.11
5	257.24	257.30	-0.06
6	257.22	257.27	-0.05
7	258.12	258.17	-0.05
8	257.60	257.64	-0.04
9	257.34	257.38	-0.04
10	257.93	257.95	-0.02

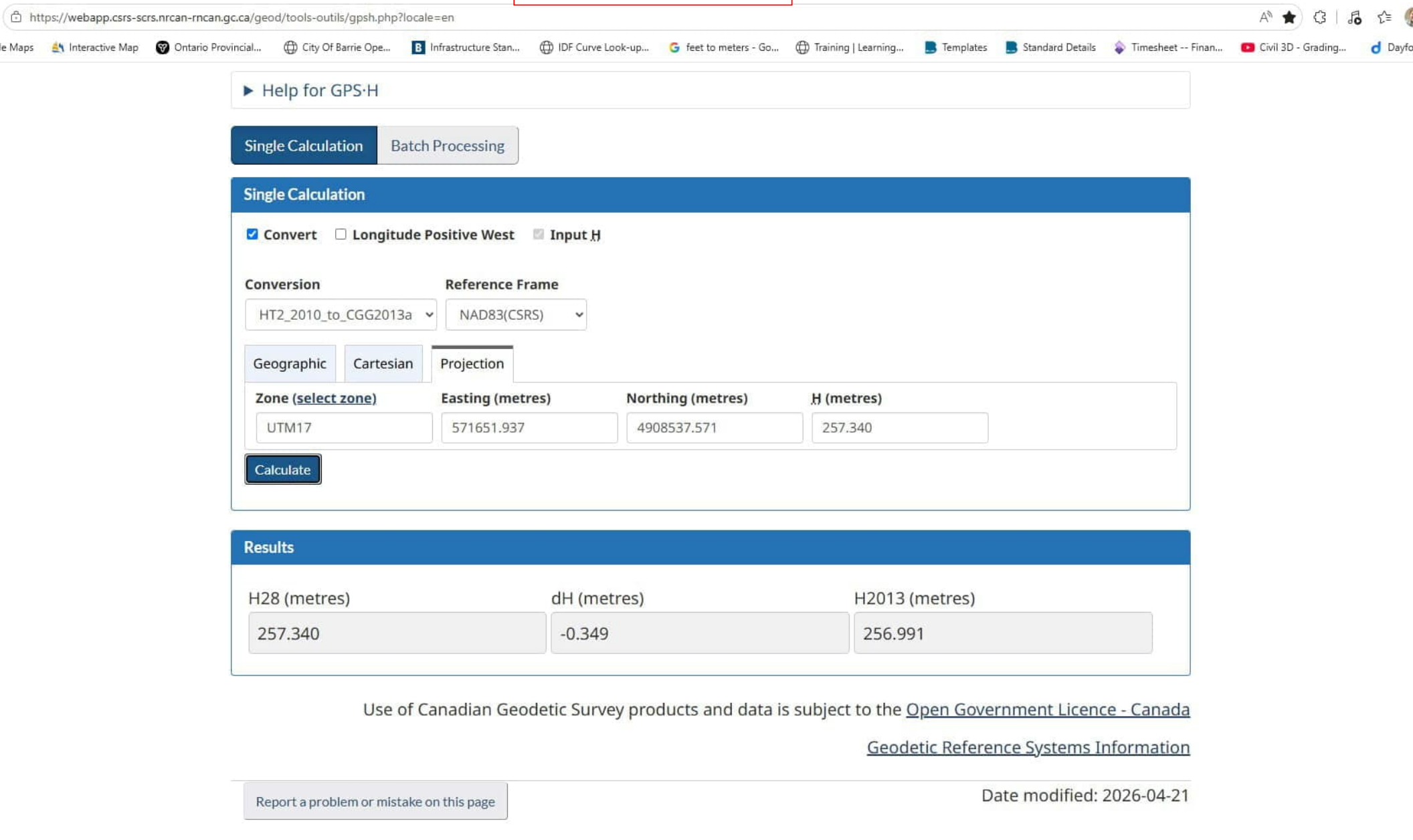
Median
-0.06

The median elevation difference is 0.06m (Surveyors elev < DEM elev)

where, Difference = Surveyor's Elev - DEM Elev

Q:\67061_001\Design\Flood\[260625_DEM_Topo_Comparison.xlsx]DEM_Adj

Survey Datum Adjustment




Local Development Potential
34 Caroline St
Site
Creemore Public Library
Library St.
Francis St. E.
Francis St. E.
Caroline St. E.
Caroline St. E.
Mary St.
Elizabeth St. E.
Elizabeth St. E.
Edward St. E.

Nottawasaga Valley
Conservation Authority

April 21, 2026 SENT BY EMAIL

Township of Clearview
217 Gideon Street
Stayner, ON
L0M 1S0

Attn: Danielle Waters
Community Planner
dwaters@clearview.ca

RE: NVCA Amended Comments for Pre-Consultation
144 Mary Street
Township of Clearview
Town File No. 2025-074PC
NVCA ID #58812

*Please note that the NVCA pre-consultation comments originally issued on December 9, 2025, have been amended to reflect updated information made available to the NVCA.

Dear Danielle,

Nottawasaga Valley Conservation Authority [NVCA] staff has reviewed the above noted pre-consultation application for a proposed redevelopment of the site for residential purposes. The applicant proposes an Official Plan Amendment (OPA) and a consent application for the creation of an additional residential lot on the subject lands.

NVCA staff have received and reviewed the following documents submitted with this application:

- Severance Sketch, 144 Mary Street; Prepared by: Morgan Planning and Development; Dated: May April 18, 2026

Staff has reviewed this application as per our delegated responsibility from the Province to represent provincial interests regarding Natural Hazards identified in Section 5.2 of the Provincial Planning Statement (PPS, 2024) and as a regulatory authority under Ontario Regulation 41/24. The application has also been reviewed through our role as a public body under the Planning Act as per our CA Board approved policies. Finally, NVCA has provided comments as per our Municipal Partnership and Service Agreement with the Township of Clearview.

Ontario Regulation 41/24

The subject property falls entirely within an area affected by Ontario Regulation 41/24 (Prohibited Activities, Exemptions and Permits Regulation) where a permit is required from the NVCA under the *Conservation Authorities Act* prior to development.

The area is affected by the regulation due to flood hazards associated to the Mad River.

Natural Hazard - Regulatory Comments

1. Policies contained within the PPS restrict development to areas outside of hazardous lands adjacent to shorelines and large inland lakes as well as river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards.
2. The subject lands are outside of Specific Policy Area 13.2.1; however, based on Section 6.2.1.6 and a confirmation email from Amy Cann on June 12, 2025 NVCA staff apply the two-zone floodplain policies within Official Plan Section 13.2.1 to the lands outside of the Specific Policy Area 13.2.1, which lands have been identified to be within the regional floodplain as per the approved Upper Mad River Flood Study (2024).
3. Based on comment 2 the subject lands are located within the floodplain of the Mad River where the two-zone floodplain management concept shall apply, where the floodplain consists of a floodway and flood fringe. Per Section 13.2.1 (a), of the Township of Clearview Official Plan the floodway shall be defined as the area where one of the following criteria is **exceeded**:
    I. a maximum flooding depth of 0.3 metres;
    II. a maximum flooding velocity of 1.7 m/s; or
    III. a maximum combined depth–velocity product of 0.4 m2/s; and
4. 2D HEC-RAS model of the Upper Mad River, prepared by Aquifor Beech, was reviewed and it was determined that a portion of the property is located within the flood fringe and the west portion is located within the floodway (flood depths in excess of 0.3m).
5. NVCA staff have confirmed with the applicant that NVCA staff are **supportive** of the **April 18, 2026 severance sketch (attached),** which proposes the creation of one (1) lot, subject to the applicant satisfying the following requirements to the satisfaction of NVCA staff.
    a. **Cumulative Impacts Assessment**; it must be demonstrated that any development proposed on the proposed severed lands will not aggravate existing flooding hazards or exacerbate flooding hazards on adjacent properties. The applicant is encouraged to consult NVCA technical staff when developing a Terms or Reference (TOR).
        i. Section 13.2.1.7 of the Township of Clearview Official Plan states in order to be considered a complete application, any application proposing development on the subject lands shall be required to provide, to the satisfaction of the Township and the NVCA, a Cumulative Impacts Assessment that addresses the combined impacts of development in the flood fringe, which among other things should:
            - identify any other properties in the surrounding area or in areas designated by the NVCA as being of interest that might have a similar opportunity for development; and
            - model the cumulative impacts of development in the flood fringe on the properties to confirm that there will be no negative flooding impacts on surrounding properties.

b. **Confirmation that Safe Access can be achieved;** The applicant must ensure the proposed severed lands have safe access. Per the NVCA Natural Hazard Technical Guidelines the following criteria is used to determine whether safe access/egress can be achieved.

   i. Maximum depth of flooding of 0.3 m for vehicular access;

   ii. Maximum depth of flooding of 0.8 m for pedestrian access;

   iii. Maximum velocity of flooding of 1.7 m/s;

   iv. Combined depth velocity product of 0.4 m2/s.

   v. A depth velocity product of 0.4 m2/s is selected as it indicates an area of low risk to individuals and cars being overcome by flood waters.

c. **Development Envelope outside of the floodway;** It must be demonstrated that the proposed development envelop will be completely outside of the identified floodway.

d. **Dry-floodproofing;** Confirmation that the proposed dwelling will be dry-floodproofed per the NVCA Natural Hazard Technical Guidelines.

   i. For dry floodproofing (habitable, commercial, industrial and institutional):

      - The minimum opening elevation into the development will be 0.3 m higher than the Regulatory storm flood elevation;

      - For buildings where the foundation or basement is below the regulatory flood elevation the structure may be subject to hydrostatic pressure during a flood. The structure could be protected by a fill pad around the building, structural engineering of the basement or a combination there-of. A qualified engineer could be required to design the site-specific solution. Where a fill pad is recommended the fill pad should not be extended beyond the recommended width around the building.

e. **Fill;** The applicant must demonstrate that any fill required for the construction of the dwelling is kept to an **absolute minimum** to the satisfaction of NVCA staff.

Conclusion

NVCA staff appreciates the opportunity to comment at this stage in the process. These comments should be considered valid at the time of issuance and preliminary in nature. The information presented herein is based on a preliminary concept plan and should not be considered NVCA final comments at this time.

We will require additional information in order to complete our review and additional comments may be provided in the future. All requested assessments should demonstrate how the proposed development is in conformity with all applicable NVCA and municipal policies and guidelines. The NVCA may at any point change our comments should new information become available which raises concerns pertaining to the NVCA core mandate.

Should you have any questions, please contact the undersigned at dmetheral@nvca.on.ca or ext. 278.

Sincerely,

Davin Metheral

Davin Metheral, BURPl, MCIP, RPP
Planner

cc. Michael Saunders, Engineering Technologist