

Single Access & 100 Lots Options Report – Vulnerability Assessment Results

Planning Advisory Committee

January 21, 2025

Planning & Development Department



EAST HANTS

Background

- East Hants Council has expressed concerns regarding the number of lots and/or dwelling units that access a single egress/ingress road during an emergency event since the wildfires in the spring of 2023. As a result, Council has passed the following motions:

- Motion C23(210) *Direct staff to discontinue allowing developments to exceed the 100 unit minimum before requiring a second entrance/exit when negotiating development agreements prior to coming to Council.*
- Motion C23(237) *Direct staff to create a report highlighting the single way in and single way-out subdivisions in the Municipality (over 50 homes, or what is deemed appropriate) to send to EMO and explore lands available to provide the possibility of second exits within those subdivisions.*
- Motion C24(15) *Authorize staff to take the Secondary Access Report dated December 20, 2023, to EMO Planning Committee for prioritization of communities for the Fire Smart Assessment; and that Council authorize staff to review planning and subdivision regulations to aid in the implementation of Fire Smart principles.*
- Motion C24(257) *Moved that Council authorize staff to create lot access regulations based on the length of road, number of lots, and number of dwelling units.*

Jurisdictional Scan

- East Hants is one of the few municipalities in Nova Scotia that limit the number of lots created on a single access.
- Some of the municipalities reviewed have limits on the length of a new street but developers can get around the street length requirement by showing a phased subdivision but not building all of the roads shown on the Subdivision Plan.
- East Hants requires a road reserve at a maximum of every 475 m where there are Municipal services and every 800 m where there are no Municipal services.

Jurisdictional Scan

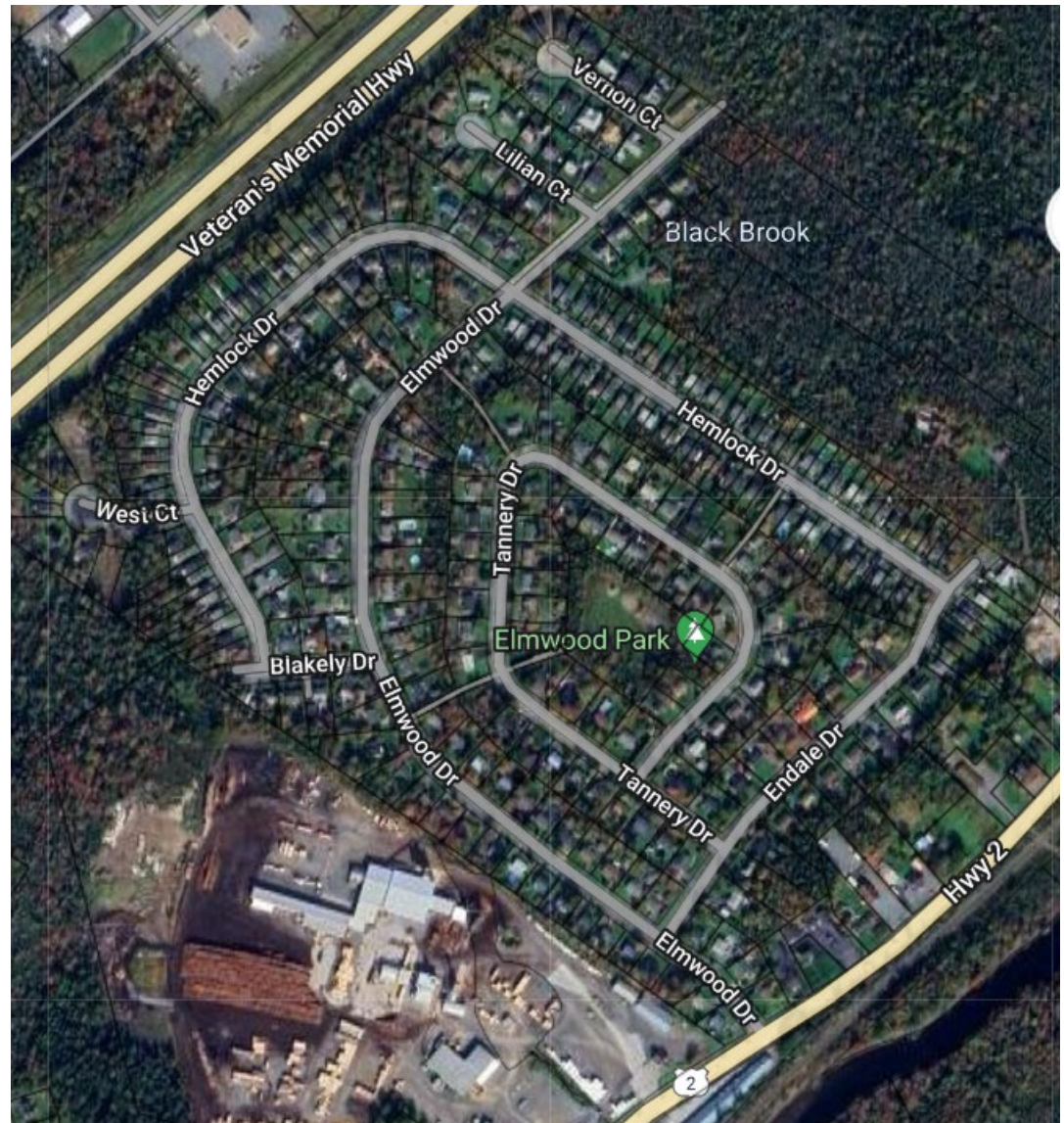
Community	Regulations
West Hants	No limits on the number of lots on a single access – For large-scale developments, the municipality would rely on the results of a traffic study.
Colchester	No limits on the number of lots located on a single access.
District of Lunenburg	No limits on the number of lots located on a single access.
Halifax	<p>The Halifax Municipal Design Guidelines stipulate that where a second access is impractical up to 100 lots containing a maximum of 100 dwelling units may be approved with a single access.</p> <p>Further to the 100 lots, in Halifax where there is an approved phasing plan and subdivision agreement in place confirming that a second street access will be provided within a specified time approved by the Municipal Engineer, up to 300 lots containing a maximum of 300 dwelling units may be approved prior to the second access being provided.</p>
Moncton	<p>The maximum length of a dead-end street is 180 m, any street beyond 180 m must have a second access. A dead-end street is only permitted in unique circumstances.</p> <p>Moncton Fire Department reviews plans of subdivision. The maximum number of dwelling units on one access depends on comments from the Moncton Fire Department. Depending on the number of dwelling units the fire department may want to see additional street intersections.</p>

Jurisdictional Scan

- Research on the topic of single access roads was completed and there is not a science backed method of determining an appropriate road length and dwelling unit count on a single access.
- Most discussion boards, where Planners discussed the road access topic, indicated that their regulations are based on what a fire department can service and respond to and on the amount of risk that a Municipality is willing to accept.
- In Los Angeles, the Municipal Code requires that when a dead-end access is permitted (requires special permission) in excess of 700 feet in length from the nearest cross street, at least one-additional ingress/egress roadway shall be provided in such a manner that an alternative means of ingress/egress is accomplished.
- This can be completed through the use of fire lanes. Los Angeles also has many other code requirements related to fire prevention, such as requiring a fire lane if a first floor wall is more than 150 feet from the front property line.
- Other jurisdictions in the United States have alternative regulations and there is no consistent set of regulations for dead-end streets. For example, the Delaware Department of Transportation states that no more than 20 single family homes shall be located on a dead-end street and that the maximum length of a street should be between 500 feet and 1000 feet.

Why was the 100 lot rule created?

- Created in response to the development of Elmwood subdivision.
- On one access there are over 300 lots, over 328 dwelling units, and over 780 people.
- There are existing potential hazards located adjacent the single access.
- Regulation has been in place since at least 2006.



Vulnerability of Existing Single Access Neighbourhoods

- Planning, GIS, and EMO staff have completed a Vulnerability Assessment on each neighbourhood with 100 lots and a single access to help identify vulnerabilities in each area.
- The detailed Vulnerability Assessment has been attached as Appendix A.
- Items that were taken into consideration as part of the analysis include the following:
- **Access/Road Ownership** - Single access roads present challenges for ingress/egress and the ownership and quality of the road impacts residents and first responders' ability to use a road in the case of an emergency.

Vulnerability of Existing Single Access Neighbourhoods

- **Length of Road** - The longer the road length the farther residents have to travel to exit the neighbourhood or the farther first responders have to travel to respond and assist residents in an emergency event.
- **Type of Forest Cover** - Determine the type of forest cover surrounds the neighbourhood. Research indicates that deciduous trees are less prone to burning than conifers, and that fires in deciduous stands burn slower and with less intensity than conifer stands (*Cumming, 2001; Hély et al., 2000*). Further to this, Provincial land cover data was used to create a Land Cover Risk Maps that categorizes risk of forest fire from the type of land cover.

Land Cover	Risk
Water	None
Bogs or Wetlands	Very Low
Hardwood	Low
Urban, Landfill, Quarry, Transport Corridor	Low
Agriculture	Moderate
Mixedwood	Moderate
Harvests	High
Softwood	Very High

Vulnerability of Existing Single Access Neighbourhoods

- **Slope** - Wildfires burn up slope faster and more intensely than along flat ground. A steeper slope will result in a faster-moving fire, with longer flame lengths. While moderate or steep slopes greater than 20% are very dangerous, any slope can potentially increase the amount of heat a structure will be subject to during a wildfire (*Fire Safe Marin*).



Fire spreads rapidly up steep slope with heavy brush



Fire threatens home on steep hillside. AP News

- **Watercourses** - Determined how many watercourses intersect roads within the single access area. Considered if there was potential for a flood event or tried to determine if there had been a flood event or washout in the past.



- **Fire Protection** - Determined if the neighbourhood has fire hydrants, or if they have a dry hydrant, or if a fire truck get access to a lake.
- **Impacted Residents** - The number of residents and dwelling units located on a single access road will contribute to the speed of evacuation. Reviewed the type of homes, depending if they seasonal or permanent may impact how first responders respond to an event.

EAST HANTS VULNERABILITY ASSESSMENT

100 LOT SINGLE ACCESS AREAS

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Vulnerability of Existing Single Access Neighbourhoods

- The Vulnerability Assessment could be further refined for EMO purposes or for climate change planning by adding additional criteria such as communications (cell phone), distance from first responders, etc.
- The Vulnerability Assessment has shown that all of the neighbourhoods identified with over 100 lots and one access are at some risk to fire or flooding, and would impact residents' ability to exit their neighbourhood in case of an emergency.
- The Vulnerability Assessment is divided into 5 categories, every 20% increase is attributed to a different level of vulnerability.
- From 0 to 20% very low vulnerability, 21% to 40% low vulnerability, 41% to 60% moderate vulnerability, 61% to 80% high vulnerability, and 81% to 100% very high vulnerability.

Vulnerability of Existing Single Access Neighbourhoods

- Most to least vulnerable East Hants neighbourhoods with a single access and over 100 lots:
 1. Uniacke Mines Road - overall score 79% - High Vulnerability
 2. Piggott Lake Road - overall score 75% - High Vulnerability
 3. Grand Lake Area - overall score 75% - High Vulnerability
 4. Old Mines Road - overall score 72% - High Vulnerability
 5. Lakecrest Drive - overall score 67% - High Vulnerability
 6. Elmwood Subdivision - overall score 55% - Moderate Vulnerability
 7. Kali Lane - overall score 36% - Low Vulnerability

Vulnerability of Existing Single Access Neighbourhoods

- Although Kali Lane does not have 100 lots, the area was included in the Vulnerability Assessment to show an example of an area that has a low vulnerability.
- The road does not have 100 lots but there is over 2.4 hectares of land that could potentially be developed in the future.
- Of the neighbourhoods with over 100 lots, all of the areas reviewed have a moderate to high vulnerability, with Uniacke Mines Road having the highest vulnerability score.
- There are likely other areas of East Hants that would have a high vulnerability assessment score although they have two ways to access the neighbourhood. At a future date East Hants Council may want to complete a vulnerability assessment for other neighbourhoods in East Hants.

Vulnerability of Existing Single Access Neighbourhoods

- Staff cannot predict if and when a major weather event or fire event may occur, but we can determine what the community vulnerabilities are.
- It is Council's decision to determine what risk is acceptable for the community and for the Municipality.
- Staff are not recommending continued development in areas with one access if the vulnerability is high to extreme.
- In the Options Section, options have been developed based on this recommendation for PAC's consideration.

Number of Dwelling Units on a Single Access

- In July of 2023, Council passed Motion C23(210), to limit the number of dwelling units to 100 units on a single access as part of development agreement negotiations.
- This motion does not apply to as-of-right development.
- Staff recommend that a consistent approach be taken.
- As shown by the Kali Lane vulnerability assessment example, a larger number of dwelling units can be located on a single access if the road is relatively short, the road is serviced by fire hydrants, and the surrounding area is developed (limited forest cover).
- Therefore, staff recommend that on roads 750 m in length or shorter up to 300 dwelling units may be permitted on a single access where there are Municipal water and wastewater services.
- In areas outside of a serviceable Growth Management Area, staff recommend that the maximum number of dwelling units located on a single access be 150. The 50% additional dwelling units than lots would permit half of single unit dwelling home owners to have an accessory dwelling unit.

Emergency Accesses

- As part of the Second Access Report presented to PAC in January 2024, Planning staff completed a simple desktop exercise and identified potential emergency access points that could be created by East Hants.
- One of the options identified in the report was to direct staff to further investigate these potential connections. However, PAC and Council chose not to move forward with the option at that time.
- During the July 2024 Council meeting, a motion was moved and later defeated that *“...that the Planning Advisory Committee recommend that Council direct staff to prepare a report on viability of connecting roads at the previously identified locations.”*
- If, after reviewing the Vulnerability Assessment, PAC wishes to now investigate options of creating a second access into the identified neighbourhoods, PAC may want to direct staff to investigate the potential development of emergency accesses to service the identified single access areas and to allow for the continued development of these areas.

Options

- As a result of the Vulnerability Assessment, staff do not recommend that the number of lots on the roads reviewed (except Kali Lane) be permitted to increase without a second access.
 - Based on staff evaluation the risk to the residents seems to outweigh the benefits of increasing the housing supply. Municipal staff have developed four options for the consideration of PAC.
1. Prepare amendments to the Subdivision Bylaw that would permit over 100 lots be created on a single access road, where a vulnerability assessment shows that the road has a very low to moderate risk assessment.

AND

- Prepare amendments to the Official Community Plan that permit a maximum of 300 dwelling units on a single access road in a GMA serviced by Municipal water and wastewater; and prepare amendments that would permit a maximum of 150 dwelling units on a single access in all areas of East Hants not serviced by Municipal water and wastewater.

Options Continued

2. Maintain the 100 lot regulation and prepare an amendment to the East Hants Official Community Plan that would limit the number of dwelling units to 300 units on a single access in the GMA's serviced by Municipal water and wastewater and 150 dwelling units in all areas of East Hants not serviced by Municipal water and wastewater.
3. Direct staff to investigate the feasibility of constructing emergency accesses (financial and engineering requirements) to service the areas identified in this report to allow for increased development. Emergency access could be built and owned by East Hants or built to the East Hants private road standards with easements in favour of all impacted properties.
4. Make no changes to the current regulations and allow for the development community to build second accesses to the identified areas when development pressure warrants the cost of constructing the second access.

Citizen Engagement

- Proposed amendments to the East Hants Official Community plan require a public information meeting.
- If Council authorizes staff to prepare amendments to the East Hants Official Community Plan in accordance with the recommended motion, a public information meeting will be organized and held at the Lloyd E. Matheson Centre.
- Notice of the PIM will be advertised on the Municipal website and on social media.
- In addition, staff will notify local surveyors, developers, and road associations of the meeting.

Recommendation

- Prepare amendments to the East Hants Official Community Plan based on Option 1; and authorize staff to schedule a public information meeting.

Recommended Motion

Planning Advisory Committee recommends that Council:

- *authorize staff to prepare amendments to the Subdivision Bylaw that would permit over 100 lots be created on a single access road, where a vulnerability assessment shows that the road has a very low to moderate risk assessment.*
- AND
- *authorize staff to prepare amendments to the Official Community Plan that permit a maximum of 300 dwelling units on a single access road in a GMA serviced by Municipal water and wastewater; and prepare amendments that would permit a maximum of 150 dwelling units on a single access in all areas of East Hants not serviced by Municipal water and wastewater.*
- AND
- *authorize staff to schedule a public information meeting.*