
3.0 Master Plan

3.1 — DEVELOPMENT OBJECTIVES

The Master Plan for the Wilkins Lake Loon site has been developed to:

- To create a gateway into HRM's Topsail Lake lands and eventually a connection into Clayton's Port Wallace development and the future interchange planned for the 107 linking to Montague Road.
- To utilize the existing signalized intersection at Ridgecliff and Main Street as the main controlled access point into the development.
- To provide commercial uses at the entrance into the development that will reduce reliance on automobile ownership and create a more walkable community. The development is only 400m from the Sobeys/NSLC grocery store, the gateway market, Tim Hortons and a range of other commercial uses. The commercial uses in this development could include a bank, restaurants and other food services, professional services (doctor, lawyer, healthcare, etc), retail and other commercial uses that will directly service this community and traffic on Main Street/107.
- Provide enhanced transit stops at the gateway to the development on both sides of Main Street
- Creates a right-in, right-out controlled access at the Golf View Drive and Main Street intersection due to the acute angle of the two streets.
- Provides onstreet parking and an urban street cross section near the commercial centre of the development.
- Provides a triple A, separated multiuse cycling lane on the west side of the new entry road (Wilkins Drive) into the development all the way to the future road connection into the Topsail Lake lands.
- Provides a large 1.7 acre central park on Wilkins Drive to service the recreational needs of residents and provide ample room for stormwater management.
- Provides a mix of multi-unit apartments and stacked townhouse units.
- Minimizes the at-grade parking throughout the development in favour of below ground parking to reduce the stormwater runoff from asphalt in the development.
- Preserves the wetland and watercourse corridor through the site that connects Cranberry Lake to Loon Lake.
- Maintains the "Old Preston Road" (Golf View Drive) as a cultural artifact for the development
- Provides a potential future road connection to the neighbouring lands (3.2 acres) to the east of the site.
- Capture and control all future runoff from the site in a way that maintains or improves the pre-development discharge from this site in the future.
- Create a "Complete Community" development where most of the needs of residents

are met with services, facilities and employment within walking distance to the new residential units. This includes sidewalks on all new streets, a new AT shared Use trail along the future "Wilkins Drive", future transit stops, additional trail connections through the development, a new large park bordering the Topsail Lake Lands and new proposed groundfloor retail uses near the village centre to service new residents.

- Provides multis with a range in heights from 3 storeys to 8-storeys consistent with the new HAF policies.
- Ensure the development is planned to be transit and bike friendly.
- Cater to a wide range of age groups including young families who will benefit from the nearby schools, shopping, Cole Harbour Place and seniors facilities.
- Ensure that roads follow the red book standards and other Complete Streets best practices.
- Provide opportunities for new office type uses like medical clinics to service this new population.
- Provide private green spaces and amenity spaces for each new building on the groundfloor and on the rooftops of the new development.
- Ensure the plan is phased to create recreational amenities in the early phases of the development for early residents.

This is an area of HRM that can accommodate significant density due to the sites transportation connectivity, its adjacent existing facilities and services, and its lack of bordering residential uses which might be impacted by the development. This area will provide much needed housing for this part of Dartmouth, and will provide a mixed use development to enhance the existing commercial uses on Main Street.

3.2 — HAF CHANGES TO THE DARTMOUTH MPS

In April of 2023, the Dartmouth MPS and LUB were amended to enable development on the Wilkins Land to support a "compact, mixed use and transit oriented development that provides adequate buffers from environmentally sensitive features on the site" by development agreement. The policies that must be met include:

- (a) *Policies H3A and H3B shall apply, except for the requirements limiting land use, density, and lot frontage under clauses (b), (d), and (i) of Policy H-3B that shall not apply;*
- (b) *permitted density on the site shall be determined based on the recommendations of:*
 - (i) *a Land Suitability Analysis, including mapping and analysis of the area's ecological features to identify lands that are constrained, partially constrained, or not constrained for development. The analysis shall include consideration of watercourse and wetland habitat, forest habitat, species at risk habitat, landscape and ecological connectivity, surficial and bedrock geology, steep slopes, contaminated sites, and areas of cultural significance,*
 - (ii) *a Transportation Impact Assessment, and*
 - (iii) *consultation with Halifax Water regarding any setback or buffering requirements for Topsail Lake;*
- (c) *a built form on the site that includes:*
 - (i) *a mix of three to eight storey buildings with three-storey streetwalls,*
 - (ii) *ground oriented units or commercial uses at the groundlevel,*
 - (iii) *limiting surface parking,*
 - (iv) *a maximum building width and maximum building depth of 64 metres, and*
 - (v) *tall buildings on the site be located closer to Main Street;*
- (d) *buffering, including setbacks, fencing and landscaping (planting or retention of trees or vegetation), required for the purposes of sedimentation or erosion control to protect the Emergency Water Supply Area;*

- (e) *controlling erosion and sedimentation during the construction of the development; and*
- (f) *bonus zoning requirements in accordance with Section 9.7A of the Regional Municipal Planning Strategy and Appendix A of the Dartmouth Land Use By-law.*

Policy H-3BB In considering a development agreement under Policy H-3BA, Council shall consider all of the following:

- (a) *addressing the irregular alignment of Golf View Drive and Main Street based on the findings of the Traffic Impact Assessment, which improvements to the intersection may be required to introduce any proposed development to the site and will require the involvement of the Municipality and the Province of Nova Scotia;*
- (b) *the transportation network which prioritizes walking, the easy use of mobility devices, cycling and transit use, and supports connections to the surrounding community; and*
- (c) *any future functional plan approved by Regional Council for the Main Street corridor.*

The submission addresses all these policy issues and built form requirements including the required submissions (LSA, TIS, HW feedback).

3.3 — THE MASTER PLAN

A master plan and 3D massing model/Pro forma was developed to address the policies in the latest HAF MPS changes shown on the previous page. This required modifications of the originally submitted plan last March 2024 to address the new policies. To that end the master plan includes the following elements:

1. The Land Suitability Analysis addresses the environmental issues that must be addressed in the plan. Generally speaking, with most of the site cleared as a driving range, there are very few concerns to be accommodated in the development plan. The archaeological report did not find any important cultural resources except the Old Preston Road (now Golfview). The wetland delineation has identified some wetlands and a watercourse along the eastern boundary of the site and most of the watercourse lands and surrounding wetlands have been preserved in the master plan. A few wetlands to the north of the site will be infilled as part of a wetland alteration permit. The watercourse setback has been set at 20m. The development is no closer than 100m from Topsail Lake or Lake Loon.
2. The site generally drains to the north-east where ample land has been reserved for stormwater wetland facilities.
3. Surface parking has been drastically reduced from the earlier version of the plan. All buildings will still require fire access so fire lanes have been identified around all cluster of building to meet the fire code requirements. Some of these lanes include a small number of parking spaces but in general, there will 3-4 times more parking underground than surface parking. This change will further reduce the surface water runoff making it easier to balance pre and post runoff. A full stormwater management and erosion control plan will be submitted at building permit stage to ensure there is no additional runoff from this development into either Topsail Lake or Lake Loon. There are now less than 160 surface parking stalls down from over 500 in the previous plan. There are currently 60 surface parking spaces at the existing driving range, so only an increase of 100 spaces in the master plan (1 acre of additional asphalt).
4. The plan include a 1.7 acre village square public park in the middle of the development. The park has over 80m of public road frontages so it is highly visible and exceedingly accessible to all residents. The park has been located at the terminus of entry road into the development making it visible for all walkers, cyclists, and drivers. The park will include a range of trails, seating and furnishings, light standards, exercise and play equipment, community gardens, softscapes, stormwater management facilities, etc. The land will be dedicated to HRM once the entry road location has been finalized. Of the 23.2 acres, the 1.7 acre park site represents 7.3% parkland, leaving 2.7% (of the 10% parkland dedication) to be paid as cash in lieu.
5. There is an additional 2.63 acres of conservation land preserved in the master plan (11.3% of the site). Between the parkland and conservation area, the master plan has preserved 4.3 acres of the 23.2 acres (18.5%) for open space. There are also substantial private open spaces proposed for the master plan which adds another 4 acres (17%) open space to the already generous open space total. All the public and private open spaces represent over 35% open space.
6. The plan shows 11 multi-unit buildings which range in height from 6-8storeys. Generally the taller buildings are located closer to Main Street reducing in height to the north of the property. We anticipate some of the groundfloor will include commercial uses to service this local community (barbers, doctors, food services, grocers, etc. The ground-floor units will all have doors and private patios to make them ground-oriented. Every building will include bike parking and amenity spaces to meet the built form requirements.
7. The buildings will have no less than 10% of the units as 3-bedroom, 20% of the units as 2-bedroom, and 70% of the units as 1-bedroom or Studio suites.
8. The parking ratio for any residential building shall not exceed 1:1
9. Transit stops have been planned for Main Street, but the new roads in the development are intended to have bus services in the future when the road eventually connects through to the Topsail Lake lands.
10. All roads will be 20m easements designed to meet HRM's redbook standards. Near the commercial core to the south of the site the roads will have onstreet parking on both sides. All roads will include sidewalks on both sides of the street.
11. The maximum building dimensions on the plan are 64m and the maximum streetwall height is 3-storeys. Other built-form requirements are described in the next section but generally follow CEN-2 requirements from Centre Plan.
12. Bonus zoning for buildings over 2,000 m² will meet *Section 9.7A of the Regional Municipal Planning Strategy and Appendix A of the Dartmouth Land Use By-law*.

1. The plan provides 3 connections to neighbouring properties. The first is HRM's Topsail Lake property to the north west and Golf View Drive connection (which exists today). The second connection is the neighbouring property to the east (PID 41053281) if the property owner wants to connect. If the owner does not need the connection, the street will be left as a cul-de-sac. The plan could also accommodate a future through connection (right-in, right-out) to the 107 highway if that was ever desirable for rapid transit. A 3-legged roundabout is centrally located in the plan
2. The Ridgecrest/Man Street signalized intersection would be redesigned to include: (1) a Main Street east-bound left turn lane into Wilkins Drive, (2) a west-bound Main Street right turning lane into the development, (3) a dedicated transit stop integrated into the right turn lane, (4) integrated bicycles lanes on Main Street, (5) a right and left turn lane exiting from Wilkins Drive onto Main Street, and (6) new 4-way signals and timing for

the intersection.

3. A Triple A, separated 3.2m wide multi-use cycling lane is provided on the west side of Wilkins Drive from Main Street all the way to the connection to HRM's Topsail Lake property (PID 41053877).
4. The plan includes a dedicated commercial core between Main Street and Golf View Drive. While these sites could be mixed use with ground-floor commercial, the owner anticipates a lot of commercial interest for dedicated commercial sites only. These sites could also accommodate upstairs offices so the DA should make provision for up to 3-storeys in height and a mix of uses that include groundfloor commercial and office or residential above.
5. The plan includes 3 3-storey clusters of stacked townhomes with a total of 18-units. These could be sold as condo units or as rentals.

Lake Loon - Pro Forma

Jan 6, 2024

Plate Efficiency

84%

Avg Unit Size

69 m2

Building	Comm GFA	Sched Height Max (m)	Total Storeys	Lowrise (3-storeys)		Midrise (up to 8-storeys)		Total Res GFA (m2)	Units	Height (m)
				Storeys	Lowrise GFA	Storeys	Midrise GFA			
Retail - A	600 m2	4	1	1				0	0	4.5
Retail - B	1150 m2	4	1	1				0	0	4.5
Retail C	340 m2	19	6	1				0	0	19.5
A		25	8	3	1600	5	1400	11,800	144	25.5
B	400 m2	25	8	3	2390	5	1850	16,020	195	25.5
C	200 m2	25	8	3	2800	5	2590	21,350	260	25.5
D		25	8	3	2130	5	1760	15,190	185	25.5
E		19	6	3	1010	3	940	5,850	71	19.5
F		25	8	3	2100	5	1135	11,975	146	25.5
G		25	8	3	2100	5	1135	11,975	146	25.5
H		25	8	3	2100	5	1135	11,975	146	25.5
I		19	6	3	1010	3	940	5,850	71	19.5
J		25	8	3	2100	5	1135	11,975	146	25.5
K		19	6	3	1010	3	940	5,850	71	19.5
Stacked Towns			3.5						18	12
Total	2690 m2							129,810	1,599	

Total Lot Area	24.2	acres	acres
Density	66.1	UPA	
FAR	1.3		
Parking Ratio	0.8-1.0		
Conservation Area	11,770	m2	2.91 acres
Village Park (Dedicated to HRM)	5,425	m2	1.34 acres
Total Open Space Area	17,195	m2	4.25 acres
Parkland Dedication	5.5%		





Topsail Lake

107 Highway

Main Street



3.4 — BUILT FORM REQUIREMENTS

The proposed built form of the Lake Loon development follows the requirements set out in H-3BA of the April 23, 2024 HAF amendments. Generally, the built form required in the policy includes:

- (i) a mix of three to eight storey buildings with three-storey streetwalls,*
- (ii) ground oriented units or commercial uses at the groundlevel,*
- (iii) limiting surface parking,*
- (iv) a maximum building width and maximum building depth of 64 metres, and*
- (v) tall buildings on the site be located closer to Main Street;*

To that end, the plan maintains these built form requirements with the only caveat that (c)(v) (tall buildings must be located closer to Main Street), it has always been the developers intention to have stand alone commercial uses to keep this as a walkable community and so the plan shows stand alone commercial pad sites between Golf View Drive and Main Street. From Golf View Drive, the building heights start at 8-storeys and then step down to 6-storeys and then 3-storey stacked townhouse units at the east and north ends of the site. Near the roundabout, the intention is to have one wing of the building at 8-storeys and another wing at 6-storeys to vary the height for these building clusters.

Highway Commercial Designation (HC)

The HC designation will primarily feature stand-alone commercial uses which could include retail, banking, hotel, fast-food, micro-brewery, and service industry uses. Generally speaking we anticipate 1 or 2-storey building heights but there may be potential for upwards of 3-4 storeys in height to provide office type uses above the ground floor. This area would include surface parking (about 110 spaces), 3 or 4 buildings, and drive-through provisions for one of the commercial uses.

It is important to consider that this entry point into the development will be a large scale gateway through the development and eventually into the Port Wallace lands so it will likely service a larger service-shed than just

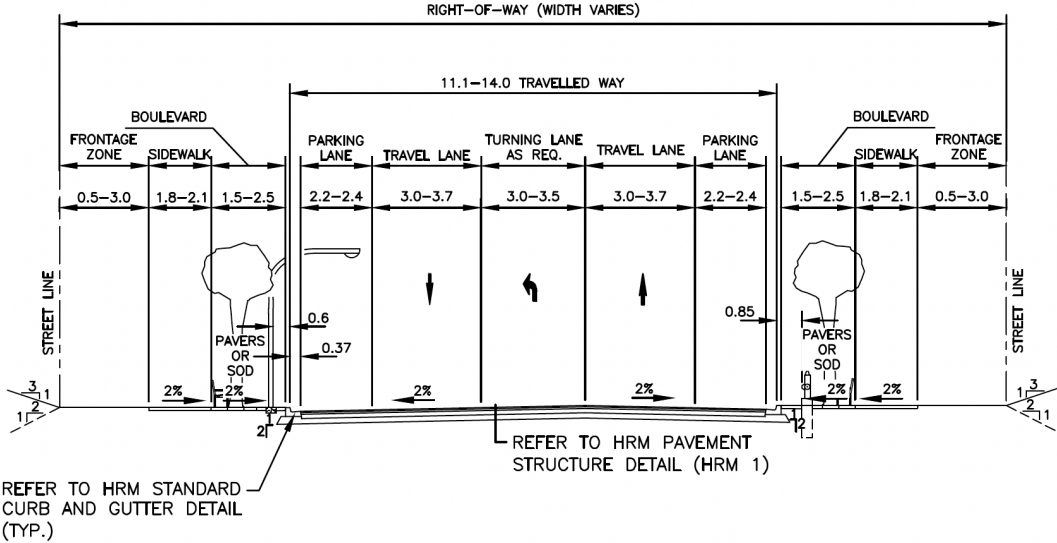
this development alone. The plan anticipates on-street parking as well in this area to create a urban square feel to the development. The onstreet parking will help to reduce vehicle speeds through the development, making it safer for pedestrians, cyclists and drivers alike.

This designation is found between Main Street and Golf View Drive. The additional built-form requirements will include:

1. A maximum height limit of 14m.
2. A Minimum lot frontage of:
 - a. 20m per building
3. Sideyard setback of 6m min
4. Rear yard setback of 6m min.
5. Front Setback of 4m min. from all public streets
6. Lot coverages shall not exceed 50%
7. Groundfloor uses must be commercial or service industry uses only.
8. Upper floor uses are permitted as office or residential uses.
9. There are no parking minimums required for this area. The parking design requirements must meet the Dartmouth Bylaw parking requirements for lane widths, driveway widths, stall sizes, parking islands, accessible parking ratio, etc.
10. All streets must include a minimum 1.5m wide sidewalk on both sides of the street, and street trees spaced no less than 20m apart with caliper sized trees (no less than 60mm) following redbook standards for a Minor Collector
11. A separated AAA multi-use AT trail on the west side of the collector.
12. A drive-through is permitted on one lot.



Figure 45 — Zoning Designations



The UC Designation (UC)

The UC designation will accommodate mixed use development of a much denser scale, with all buildings being some type of mixed-use or dedicated multi-unit construction. Groundfloor commercial is permitted on any buildings greater or equal to 6-storeys in this zone, but is only required up to 200m² on the two gateway buildings flanking the entry on Wilkins Drive. The maximum unit count in this zone is 1750 units and the unit mix shall include at least 30% of the units as 2-bedroom or more.

The built form requirements for the UC designation have been heavily influenced by the Centre 2 (CEN-2) zone in the Regional Centre Land Use By-Law as well as the Port Wallace Centre (PW-CEN) and Higher Order Residential (PW-HR) zones from the Dartmouth Land Use By-Law. These designations correspond to a urban environment and level of density that fit exceptionally well within the vision for the development of the Lake Loon. Table 1 compares some of the proposed built form requirements for buildings in the UC designation along with the same requirements from similar designations.

While the maximum height within the proposed development is varied (see Schedule

Urban Centre (UC) Comparison

	Port Wallace Centre (PW-CEN)	Port Wallace Higher Order Residential (PW-HR)	Centre 2 (CEN-2)	Lake Loon (UC)
Maximum Height	50m (Variable within Schedule B-2)	50m (Variable within Schedule B-2)	90m (Variable within Map 4)	25m
Minimum Side Yard Setback	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	5m
Minimum Rear Yard Setback	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	0m-6m for the base of high-rise buildings, 6m-12.5m for the tower of high-rise buildings	6m
Maximum Streetwall Height	14m	14m	11m	10m, for up to 70% of the streetwall length
Minimum Streetwall Stepback	3m for tall mid-rise buildings, 4.5m for high-rise buildings.	3m for tall mid-rise buildings, 4.5m for high-rise buildings.	3m for tall mid-rise buildings, 4.5m for high-rise buildings.	2.5m for streetwall above 4th storey
Minimum Separation Distances	Tall Mid-Rise/Tall Mid-Rise: 12.5m Tall Mid-Rise/ High-Rise: 12.5m High-Rise/High-Rise: 25m	Tall Mid-Rise/Tall Mid-Rise: 12.5m Tall Mid-Rise/ High-Rise: 12.5m High-Rise/High-Rise: 25m	Tall Mid-Rise/Tall Mid-Rise: 12.5m Tall Mid-Rise/ High-Rise: 12.5m High-Rise/High-Rise: 25m	Tall Mid-Rise/Tall Mid-Rise: 12m Tall mid-Rise/Mid-Rise: 10m
Maximum Building Dimensions (Width x Length)	Low rise: 120m x 120m Mid-rise: 90m x 90m Tall mid rise: 40m x 46m High-rise: 36m x 38m	Low rise: 120m x 120m Mid-rise: 90m x 90m Tall mid rise: 40m x 46m High-rise: 36m x 38m	64m x 64m for low- to mid-rise portions, 35m x 35m for tower portions	64m for midrise and Tall Midrise
Max Tower Floorplate Area	1,100m ²	1,100m ²	750m ²	NA

A), the tallest proposed height among any of the areas of the site is 25m. Most of the tall buildings are found closest to Man Street. This enables a higher level of density to be achieved on this important site next to the proposed commercial core to the south. When interpreting building height, one storey is considered to be generally equal to 3m for all floors in a building except for the ground floor, which is considered to be 4-4.5m.

Table 1 also details the side and rear setback distances for developments within the proposed UC zone. Across most of the example zones, these setback distances are highly variable and depend on factors including abutting zones, building height, and lots ownership, among other factors. For simplicity purposes, the figures for the UC zone in Table 1 only correspond to the most basic setback for a mid rise building though the various exceptions and rules from the CEN-2 zone and Port Wallace zones are likely to be featured in the final DA submission.

The massing model that was used to generate the pro forma for this development employs all of the built form criteria in Table 1.

The additional built form criteria include:

1. A Minimum lot frontage of:
 - a. 20m per midrise building
 - b. 6m for each cluster of stacked townhouse units
2. Sideyard setback of 5m min
3. Rear yard setback of 5m min.
4. Front Setback of 3m min. from all public streets
5. Lot coverages shall not exceed 50%
6. There are no parking minimums required for this area. The parking design requirements must meet the Dartmouth Bylaw parking requirements for lane widths, driveway widths, stall sizes, parking islands, accessible parking ratio, etc.
7. At least 70% of all parking must be underground with no more than 30% of the parking permitted at-grade.
8. No more than 140 at-grade parking spaces are permitted within the UC designation.
9. All streets must include a minimum 1.5m wide sidewalk on both sides

of the street, and street trees spaced no less than 20m apart with caliper sized trees (no less than 60mm) following redbook standards for a Minor Collector

10. A separated AAA multi-use AT trail on the west side of the collector.
11. Amenity requirements of 8m² per unit. Decks are permitted to be measured as amenity space. Each building over 40 units must have a dedicated amenity room no less than 150m².
12. Bike parking must meet the Regional Centre LUB requirements.

The Parkland Designation (P)

The P designation only permits park type uses which include no parking lots, no buildings greater than 100m², stormwater management infrastructure, trails, natural areas, active and passive recreation uses. These areas will be dedicated to HRM upon adoption of the DA and will include:

1. A 1.7 acre neighbourhood park bordering the Topsail Lake lands
2. 2-2.9 acres of conservation lands which can include trails, stormwater infrastructure and conservation lands.





Figure 47 — Entry into the UC Designation from Golf View Drive showing the 2 mixed use, 8-storey buildings



Figure 48 — Entry into the HC Designation showing a view from Main Street at Ridgecrest



Figure 49 — Wilkins Drive showing the 1.7 acre parkland on the left



Figure 50 — Wilkins Drive Roundabout showing the conservation corridor between the two buildings.



Figure 51 — Stacked townhomes on the right at the cul-de-sac



Figure 52 — Aerial from above the 107 Highway with Topsail Lake on the top right

4.0 References

All satellite imagery unless otherwise specified is sourced from goggle earth.

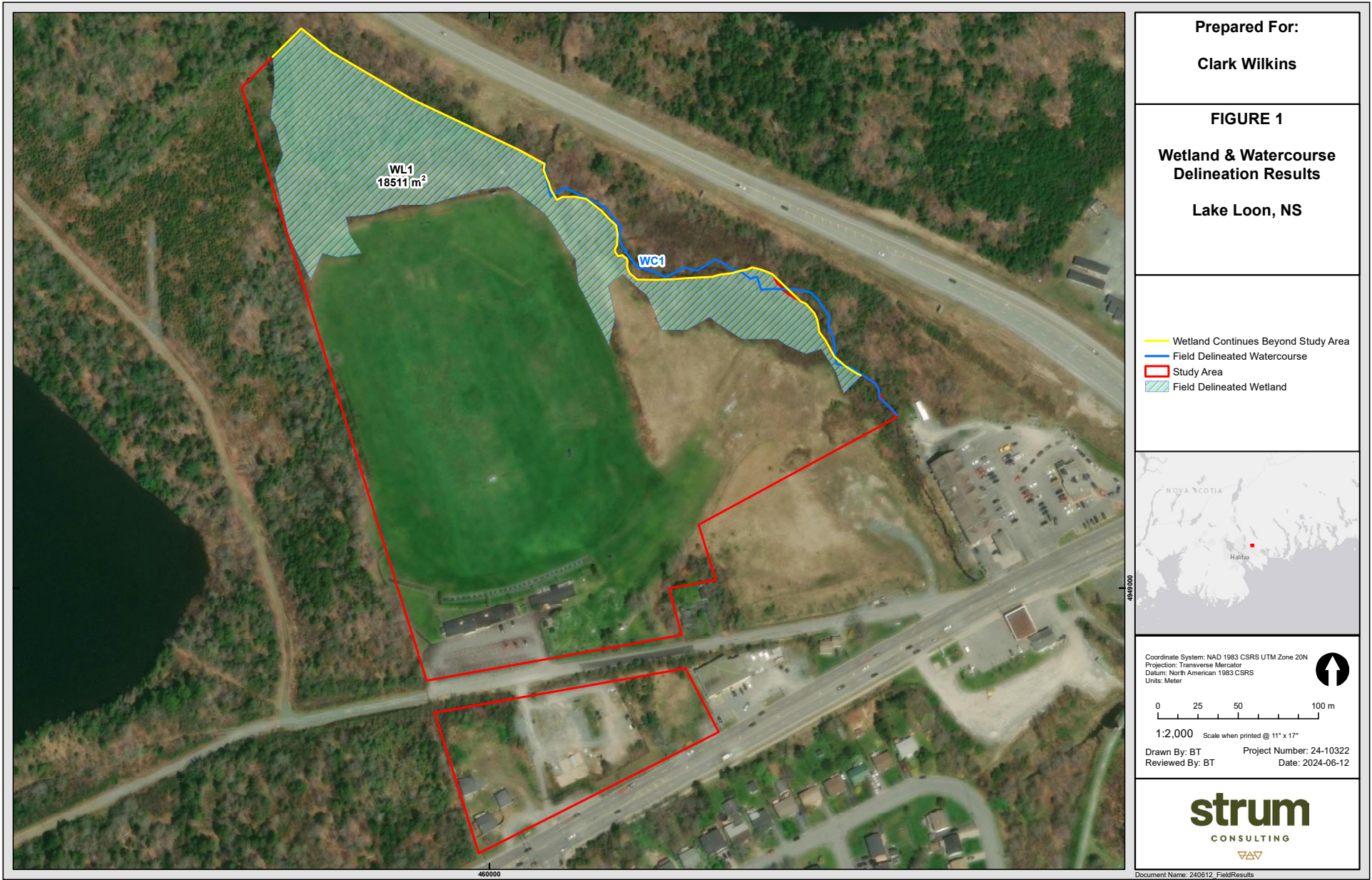
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5.0 Appendices

5.1 — APPENDIX A: WETLAND DELINEATION



5.2 — APPENDIX B: NS ENDANGERED SPECIES ACT LIST

Scientific Name	Common Name	NS ESA	Relevance	Notes
<i>Martes americana</i>	American Marten	Endangered	Low	Mostly found in Cape Breton, Mainland Population Extirpated. ¹
<i>Coregonus huntsmani</i>	Atlantic Whitefish	Endangered	Low	Only found in the Tusket and Petite Riviere watersheds. ¹
<i>Riparia riparia</i>	Bank Swallow	Endangered	Mod.	Prefers nesting in vertical banks, so less suitable for nesting, but they like open fields, meadows, or wetlands for catching flying insects. ¹
<i>Hirundo rustica</i>	<i>Barn Swallow</i>	Endangered	High	Nests on artificial structures such as barns, often in open areas like meadows and wetlands where they forage for insects. ^{1 2}
<i>Catharus bicknelli</i>	Bicknell's Thrush	Endangered	Low	Restricted to high-altitude forests in Cape Breton. ¹
<i>Fraxinus nigra</i>	Black Ash	Threatened	Low	This species requires poorly drained soils and wet areas like riverbanks. While it thrives in swampy mixed woodlands, the site's conditions do not match its primary habitat. No white ash which it is often associated with. ¹
<i>Anzia colpodes</i>	Black Foam Lichen	Threatened	Mod.	Prefers high moisture and increased light in forests, often on mature trees like Red Maple. Its specific habitat conditions are not met on-site as the swampy area is early-mature stage and spruce dominated, but fits the VT. ³
<i>Emydoidea blandingii</i>	Blanding's Turtle	Endangered	Low	Mostly found near Kejimikujik National Park, the site's wetland conditions could support this species, which prefers fens, shallow lake coves, and slow-moving streams. ¹
<i>Pectenaria plumbea</i>	Blue Felt Lichen	Vulnerable	Mod.	Found on mature broad-leaved trees (maple, ash, and birch) in moist habitats near streams and lakes. Less likely on-site but could be in the forests near the site. ¹
<i>Dolichonyx oryzivorus</i>	Bobolink	Vulnerable	Low	Favours grassy habitats but is more common in northern Nova Scotia. ¹
<i>Erioderma pedicellatum</i>	Boreal Felt Lichen	Endangered	Low	Boreal Felt Lichen is most commonly in Coastal Forests than Acadian forest types. It also prefers north-facing mature balsam fir trees and cool, moist habitats. ¹
<i>Alasmidonta varicosa</i>	Brook Floater	Threatened	Low	Prefers freshwater streams and rivers with moderate to high water flow and a rocky, cobbled bottom. ¹
<i>Lynx canadensis</i>	Canada Lynx	Endangered	Low	Restricted to Cape Breton, they inhabit mountainous and hilly areas with dense forests. ¹
<i>Cardellina canadensis</i>	<i>Canada Warbler</i>	Endangered	High	Likes wet deciduous forests with a dense under-story, such as those found in marshy areas. ^{1 4}
<i>Chaetura pelagica</i>	Chimney Swift	Endangered	High	Prefers nesting in chimneys or similar structures, and forages in open areas with abundant insects, such as wetlands. ¹

Scientific Name	Common Name	NS ESA	Relevance	Notes
<i>Chordeiles minor</i>	Common Nighthawk	Threatened	High	Typically inhabits open, disturbed habitats. While it can occasionally be found in meadows or grasslands, it prefers environments that offer unobstructed aerial foraging opportunities. Golf courses can mimic some of the disturbed or post-fire landscapes Nighthawks favour, providing flat, unobstructed areas ideal for nesting or roosting. ¹
<i>Baccharis hamillifolia</i>	Eastern Baccharis	Threatened	Low	Typically found in salt marshes along the extreme southwest of Nova Scotia. ¹
<i>Lilaeopsis chinensis</i>	Eastern Lilaeopsis	Vulnerable	Low	Grows in narrow estuaries at the mouths of large rivers. ¹
<i>Geum peckii</i>	Eastern Mountain Avens	Endangered	Low	Only found on Digby Neck and Brier Island. ¹
<i>Thamnophis sauritus</i>	Eastern Ribbonsnake	Threatened	Low	Found in slow-flowing wetlands with abundant vegetation in the southwestern part of NS. ¹
<i>Peltigera hydrothyria</i>	Eastern Waterfan	Threatened	Low	Only 6 occurrences in NS. Typically found in partially shaded streams often near white ash. ¹
<i>Antrostomus vociferus</i>	Eastern Whip-poor-will	Threatened	Low	This species avoids dense forests, favouring semi-open or patchy forest areas with clearings. ¹
<i>Thuja occidentalis</i>	Eastern White Cedar	Vulnerable	Low	Typically found on the coast around the Digby area. ¹
<i>Contopus virens</i>	Eastern Wood-Pewee	Vulnerable	Mod.	Prefers deciduous and mixed wood forest edges and clearings (with Sugar Maple, Oak and Poplar tree species); often near lakes, rivers or wetlands. ¹
<i>Coccothraustes vespertinus</i>	<i>Evening Grosbeak</i>	Vulnerable	High	Prefers mature mixed and softwood boreal forests with abundant fir or spruce trees. ⁵
<i>Lophiola aurea</i>	Golden-crest	Vulnerable	Low	Found in fens and along shorelines of lakes, typically in more undisturbed, wetland habitats further West in NS. ¹
<i>Bombus bohemicus</i>	Gypsy Cuckoo Bumble Bee	Endangered	Low	Occurs in a variety of open habitats like meadows. It lays its eggs in nests made by other bumble bees so it mainly relies on the distribution and abundance of host bees. Has not been found in NS in over 20 years. ⁶
<i>Historonicus historonicus</i>	Harlequin Duck	Endangered	Low	Prefers coastal habitats, typically found along rocky shorelines or tidal flats. ¹
<i>Salix candida</i>	Hoary Willow	Endangered	Low	Typically found in calcareous fens, which are specialized wetland habitat. Known occurrences in Inverness County, Cape Breton. ¹
<i>Myotis lucifugus</i>	Little Brown Myotis	Endangered	High	A bat species that roosts in buildings and mature trees with cavities. They forage along forested edges, fields, and near water. ¹
<i>Scirpus longii</i>	Long's Bulrush	Vulnerable	Low	Found in southwestern NS's peatland and lakeshore habitats. ¹
<i>Epeoloides pilosulus</i>	Macropis Cuckoo Bee	Endangered	Mod.	Prefers open wetlands with specific plants like Swamp Candle and Fringed Loosestrife. This species is reliant on the host bee species <i>Macropis nudarequire</i> sandy, well-drained soils nearby to create tunnelled nests. ¹

Scientific Name	Common Name	NS ESA	Relevance	Notes
<i>Danaus plexippus</i>	<i>Monarch</i>	Endangered	Low	Found in open fields and meadows rich with wildflowers, including roadsides and gardens. ^{1 7}
<i>Alces alces americana</i>	Moose (Mainland Population)	Endangered	Mod.	Found in boreal and mixed wood forests near wetlands, favouring areas with abundant food sources like young deciduous trees. The site is close but not in the mainland moose population concentration area. ¹
<i>Juncus caesariensis</i>	New Jersey Rush	Vulnerable	Low	Restricted to bogs and fens in Cape Breton. ¹
<i>Myotis septentrionalis</i>	Northern Myotis	Endangered	High	This bat prefers mature forests with large trees containing cavities, and roosts in both deciduous and coniferous forests, often near streams and water. ¹
<i>Contopus cooperi</i>	Olive-sided Flycatcher	Threatened	High	Prefers forest edges, wetlands, and bogs, often found in disturbed areas such as post-fire landscapes. ¹
<i>Falco peregrinus anatum</i>	Peregrine Falcon	Vulnerable	Mod.	Known to nest on cliffs or tall structures near open areas such as wetlands, meadows, and coastlines. ¹
<i>Coreopsis rosea</i>	Pink Coreopsis	Endangered	Low	Found on the shorelines of specific lakes in Yarmouth County. ¹
<i>Charadrius melodius</i>	Piping Plover	Endangered	Low	Prefers coastal sand or pebble beaches, and tidal flats. ¹
<i>Sabatia kennedyana</i>	Plymouth Gentian	Endangered	Low	Specific to the shorelines in the Tusket River watershed. ¹
<i>Isoetes prototypes</i>	Prototype Quillwort	Vulnerable	Low	Requires deep, nutrient-poor, spring-fed lakes. ¹
<i>Cypripedium arietinum</i>	Ram's-Head Lady Slipper	Endangered	Low	Known to occur in gypsum bedrock areas with sinkholes and steep slopes in Hants and Cumberland counties. ¹
<i>Calidris canutus rufa</i> subspecies	Red Knot	Endangered	Low	Found in coastal areas with large sandflats or mudflats. ¹
<i>Lachnanthes caroliana</i>	Redroot	Vulnerable	Low	Occurs along the shores of lakes in southwestern NS. ¹
<i>Helianthemum canadense</i>	Rockrose (Canada Frostweed)	Endangered	Low	Prefers sand barren habitats. ¹
<i>Sterna dougallii</i>	Roseate Tern	Endangered	Low	Requires coastal islands free of dense vegetation for nesting. ¹
<i>Euphagus carolinus</i>	Rusty Blackbird	Endangered	High	Known to breed in wetlands, including coniferous wooded streams, swamps, and bogs. ¹
<i>Lasioglossum sablense</i>	Sable Island Sweat Bee	Threatened	Low	This species is found exclusively on Sable Island. ¹
<i>Chelydra serpentina</i>	<i>Snapping Turtle</i>	Vulnerable	Mod.	Found in freshwater lakes, streams, and wetlands, they prefer slow-moving water with aquatic vegetation. ^{1 8}
<i>Potamogeton pulcher</i>	Spotted Pondweed	Vulnerable	Low	Prefers still or slow-moving freshwater lakes with specific bottom types. ¹
<i>Clethra alnifolia</i>	Sweet Pepperbush	Vulnerable	Low	Typically grows on shrubby lakeshore banks in southwestern NS. ¹
<i>Rhynchospora macrostachya</i>	Tall beakrush	Endangered	Low	Prefers lakeshore environments. ¹
<i>Drosera filiformis</i>	Thread-leaved Sundew	Endangered	Low	Found in bogs at the southwestern point of NS. ¹

Scientific Name	Common Name	NS ESA	Relevance	Notes
<i>Coccinella transversoguttata</i>	Transverse Lady Beetle	Endangered	Mod.	A generalist that can be found in many habitat types, reliant on seasonal aphid populations and appropriate vegetation. ⁹
<i>Perimyotis subflavus</i>	Tri-colored Bat	Endangered	Mod.	Roosts in lichen clumps, typically in forests or edge habitats with water bodies. ¹
<i>Eleocharis tuberculosa</i>	Tubercled Spikerush	Vulnerable	Low	Occurs on lakeshores in southwestern NS, preferring undisturbed wetlands or lake environments. ¹
<i>Erioderma mollissimum</i>	Vole Ears Lichen	Endangered	Low	Prefers foggy, humid, cool, coniferous or mixed forests, especially near coastal areas with high rainfall ¹ .
<i>Hydrocotyle umbellata</i>	Water Pennywort	Endangered	Low	Known to occur in Southwest NS. The species is found on the shorelines of lakes and streams in wetland habitats ¹ .
<i>Clemmys insculpta</i>	Wood Turtle	Threatened	Mod.	Found in rivers and tributaries with clear, slow-moving water and riparian vegetation. They nest in sandy bars or gravel areas ¹ .
<i>Pannaria lurida</i>	Wrinkled Shingle Lichen	Threatened	High	Found on mature deciduous tree species, often Red Maple trees, in imperfectly drained habitats near swamps or floodplains. ¹⁰
<i>Lampsilis cariosa</i>	Yellow Lampmussel	Threatened	Low	Only known in specific lakes, such as Potter Lake in Cape Breton and lower Saint John River in New Brunswick ¹ .
<i>Bombus terricola</i>	Yellow-banded Bumble Bee	Vulnerable	Mod.	Found in mixed woodlands and boreal habitats. It relies on a variety of plants for pollen and nectar and typically nests underground in pre-existing cavities. ¹¹

STATUS CATEGORIES

Endangered	a species facing imminent extirpation or extinction
Threatened	a species likely to become endangered if limiting factors are not reversed
Vulnerable	a species of special concern because of characteristics that make it particularly sensitive to human activities or natural events
Extirpated	a species that no longer exists in the wild in the Province but exists in the wild outside the Province
Extinct	a species that no longer exists

*Species ***Italicized*** are in the species AC CDC recorded within 2km of the subject site.

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5.3 — APPENDIX C: AC CDC REPORT

5.4 — APPENDIX D: ARIA REPORT