THE TOWNSHIP OF
SOUTH ALGONQUIN

7 Third Avenue
Whitney, Ontario

COMMITTEE OF ADJUSTMENT MEETING &
PUBLIC HEARINGS

AGENDA

June 20, 2023 9:00 a.m.

IN PERSON & ZOOM MEETING
Live Streamed to YouTube Channel: South Algonquin Council

Open Meeting/Call to order-9:00 a.m.

Land Acknowledgement
We acknowledge that we are gathered on the unceded Traditional Territory of the Algonquin Anishinaabeg people, specifically the Matouweskarini (people of the Madawaska River). We further acknowledge that the Algonquin People have been stewards of this land since time immemorial and we strive to treat the land along with the flora and fauna it supports, the people, their customs and traditions, with honour and respect. Today, this area is home to people of all walks of life, and we acknowledge the shared opportunities and responsibilities to live, work and survive within this beautiful territory. Chi-miigwetch, All my relations

1. Additions / Amendments to the Agenda

2. Adoption of the Agenda

3. Disclosure of Pecuniary Interest

4. Adoption of Minutes
   That the Minutes of the April 12, 2023 Committee of Adjustment Meeting be approved as submitted.

5. Public Hearing

5.1 Consider Minor Variance Application -MV.2023-02
Staff Report: Anthony Hommik, MCIP, RPP
Legal Description: DICKENS CON 14 PT LOT 12 PT;SHORE RD ALLOW RP 36R14617;PARTS 1 TO 3
Civic Address: 1552 Aylen Lake

6. Other

7. Next meeting will be scheduled when required.

Adjournment

NOTE: Submissions received from the public, either orally or in writing, may become part of the public record.
There may be limited capacity in the Council Chambers.

THE CORPORATION OF THE TOWNSHIP OF SOUTH ALGONQUIN
COMMITTEE OF ADJUSTMENT

PUBLIC MEETING IN-PERSON & ZOOM – April 12, 2023 –9:00 a.m.

There was an in-person and Zoom public meeting of the Committee of Adjustment to hear Consent Applications No. C.2023-01. Present were Committee Members: Committee Chair Councillor Kuiack, Mayor LaValley, Councillor Collins, Councillor Florent, Councillor Pigeon, Councillor Rodnick, Councillor Siydock.

Staff: Tracy Cannon, Secretary Treasurer, Committee of Adjustment
Bryan Martin, CAO/Clerk Treasurer

Applicants/Agents: Douglas Buchmayer & Sunny Yun, Gowling WLG (C.2023-01 - Agent)
Mette & Brian Baker (C.2023-01-Applicants)

Councillor Kuiack called the public meeting to order at 9:02 a.m.

LAND ACKNOWLEDGEMENT
We acknowledge that we are gathered on the unceded Traditional Territory of the Algonquin Anishinaabeg people, specifically the Matouweskarini (people of the Madawaska River). We further acknowledge that the Algonquin People have been stewards of this land since time immemorial and we strive to treat the land along with the flora and fauna it supports, the people, their customs and traditions, with honour and respect. Today, this area is home to people of all walks of life, and we acknowledge the shared opportunities and responsibilities to live, work and survive within this beautiful territory. Chi-miigwetch, All my relations

1. **ADDITIONS/AMENDMENTS TO THE AGENDA:** None

2. **ADOPTION OF THE AGENDA**
Moved by: Councillor Florent **Seconded by: Councillor Collins**
To adopt the agenda as prepared for the Committee of Adjustment meeting of Wednesday, April 12, 2023 as circulated.
-Carried-

3. **DECLARATION OF PECUNIARY INTEREST:** None

4. **ADOPTION OF MINUTES**
Moved by: Councillor Siydock **Seconded by: Councillor Rodnick**
To adopt the minutes of Wednesday, February 15, 2022 Committee of Adjustment meeting as circulated.
-Carried-

5. **PUBLIC HEARING**
Chair, Councillor Kuiack opened the Public Hearing portion of the meeting and turned it over to T. Cannon, Secretary Treasurer of the Committee of Adjustment.

5.1 CONSIDER CONSENT APPLICATION – C. 2023-01
This portion of the Committee of Adjustment meeting is to consider a Consent under Section 53 of the Planning Act for locally known as 39 Windmill Point Lane, adjacent to McKenzie Lake, in the geographic ward of Sabine.

The consent application is to sever a privately-owned shore road allowance into two separate parcels. Parts 3 and 4 on Plan 36R-1116 have merged together on title and therefore requires consent through the planning act to separate these parts.

REQUIREMENTS FOR NOTICE
The requirement to hold this meeting is there must be at least 14 days' notice as prescribed by Section 53 (5) of the Planning Act. Notice signs were posted on the property on March 16th and mailed to property owners within the required 60 metres of the subject property on March 20th.

COMMENTS FROM THE PLANNER:
Comments from Anthony Hommik, Planner Jp2g Consultant Inc were provided in the circulated planner's report.

PUBLIC/AGENCY/COMMITTEE COMMENT ON APPLICATION:

- Applicants have always been under the understanding that these lots were always separate after the purchase of the Shore Road Allowance.
- Shore Road Allowance merged due to them being registered in the same name.
- Staff are not always aware of mergers. The township usually finds this out after a title search is completed by the applicant.

MOTION:

Moved by: Councillor Florent **Seconded by: Councillor Kuiack**
That the Committee of Adjustment approve the recommendation outlined in the Planner's Report prepared by Anthony Hommik, Senior Planner of Jp2g Consultants; and that Consent Application No C.2023-01 be subject to the following conditions;

1. The applicant submit a request to the Township to enact a deeming by-law or to lift Part Lot Control to effect the merging of the shore road allowance (Parts 3 and 4 on Plan 36R-11116) with PINs 49228-0296 and 49228-0297, respectively.

2. That the applicant provide the Township with:

a. The original executed transfer (deed), a duplicate original and one photocopy;
b. A copy of the Reference Plan to be deposited in the Land Registry Office that is substantially in compliance with the application sketch; and
c. A schedule describing the severed lot and naming the grantor and grantee attached to the transfer for approval purposes.

3. Payment of all municipal legal and planning fees associated with the processing of the application.

4. If applicable, that the applicant meet all financial requirements of the Township, including payment of the balance of any outstanding taxes, including penalties and interest.

Discussion/Comment on Conditions: None
-CARRIED-

6. <u>OTHER</u>: None

7. <u>NEXT MEETING:</u> To be scheduled when required.

ADJOURNMENT

Moved by: Mayor LaValley **Seconded by: Councillor Pigeon**

The Committee adjourned the Committee of Adjustment meeting at 9:25 a.m.

-Carried-

_____ _____

Committee Chair, Councillor Kuiack Secretary/Treasurer, Tracy Cannon

PLANNING REPORT

Meeting Date: June 20, 2023

Agency: Township of South Algonquin

Staff Contact: Tracy Cannon, Planning & Building Administrator

Agenda Title: MV. 2023-02 – Marsh, 1552 Aylen Lake

Agenda Action: Approve Enlargement with Conditions

Recommendation

That Committee of Adjustment for the Township of South Algonquin approve the requested enlargement of a legal non-conforming structure on the lands known as 1552 Aylen Lake (Part of Lot 12, Concession 14, Dickens Ward) with the conditions identified in this report.

Background

The Township has received a Permission to Enlarge (Minor Variance) application from the owner of the property municipally known as 1552 Aylen Lake (Part of Lot 12, Concession 14, Dickens Ward). The subject property fronts on Aylen Lake and is currently improved with a one-storey cottage, a bunkie and a shed. The proposal is to add a one-storey addition to the existing cottage that would roughly double the building footprint. The existing cottage is located approximately 18.3 metres (60 feet) from the shoreline and the addition would be located 10.7 metres (35 feet) from the shoreline. The applicant's submitted drawing showing the location of the existing structures and the proposed addition has been attached as Appendix 1 to this report.

The existing cottage is a legal non-conforming structure and, as a result, any change, alteration or replacement of the existing cottage requires approval of the Committee of Adjustment to expand said legal non-conforming use.

South Algonquin Official Plan

The Township of South Algonquin Official Plan designates the subject property "Waterfront". Section 5 of the Official Plan contains the policies applicable to lands designated "Waterfront Areas". The Official Plan recognizes that the "Township's Waterfront lands have played, and will continue to play, an important role in the municipality's physical development." Section 5.2 permits single-detached dwellings located on individual lots along the shoreline.

Section 2.24 of the Official Plan contains the policies related to legal non-conforming uses and the ability to continue such uses. There are also policies that permit the limited expansion of legal non-conforming uses provided the intent of the Official Plan is maintained.

Section 10.7.7 of the Official Plan identifies a 30-metre area of influence for all water bodies and requires that "no negative impacts on the natural feature or its ecological function must be demonstrated through required studies before approvals are granted." Relatedly, Section 10.9.2 states that "where development is proposed within 120 metres of fish habitat, the proponent will

be required to prepare a report to the satisfaction of Council, in consultation with a qualified biologist, outlining the measures that need to be undertaken to ensure that there is no negative impact on fish habitat as the result of the development." New development may be permitted provided it:

- does not harmfully alter, disrupt or destroy the fish habitat area; and
- there will be no net loss or net gain or productive capacity of the fish habitat area.

A field assessment, dated May 12, 2023, was conducted by Ravenwood Environmental and was submitted in support of this application.

South Algonquin Zoning By-law No. 2017-527

As noted above, the subject property is zoned Shoreline Residential (SR) under Zoning By-law No. 2017-527. The Shoreline Residential zone permits the existing cottage that is proposed to be enlarged, however, the existing cottage does not meet the required 20-metre setback from Aylen Lake.

Section 4.15 a) states that "where a building or structure is located on a lot having less than the minimum frontage and/or lot area, and/or having less than the minimum setback, front yard and/or side yard and/or rear yard required by this Bylaw, the said building or structure may be enlarged, reconstructed, replaced, repaired and/or renovated provided that:

i) the enlargement, replacement, reconstruction or renovation and/or repair does not reduce the front yard, and/or side yard, and/or rear yard or increase the amount of floor area or volume or height in a required yard."

The setback for the proposed addition is less than the existing cottage, and would therefore reduce the front yard, which requires a variance to Section 4.15 a) i).

Planning Analysis

Section 45(2)(a)(i) of the *Planning Act* provides the Committee of Adjustment with the authority to consider applications for the enlargement or extension of legal non-conforming buildings or structures, provided that the enlargement to extension is within the boundaries of the property owned by the applicant.

Given the fact that the proposed enlargement is located in close proximity to Aylen Lake, which is a managed lake trout lake, an Environmental Impact Study (EIS) was required in order to consider the application. As noted above, an EIS, dated May 12, 2023, was prepared by Ravenwood Environmental. The EIS drew the following conclusions:

1. *The property is largely disturbed in the area of the proposed construction due to historic human cultivation on site (most trees cleared, little vegetation present).*
2. *Natural undisturbed habitat on site is located on all sides of the existing cottage on the site, and all will remained (sic) in its natural state post-construction.*
3. *The proposed project has been surveyed, and addition designed by professionals to incorporate best available technologies and best management practices to minimize disturbance to the site.*
4. *The proposed building envelope is entirely located within a historically disturbed section of cleared land on site.*

5. *The construction area occurs upslope of a well vegetated section of land, and upslope of the shoreline of Aylen Lake.*
6. *With the exception of two small trees, there is no additional clearing required for the proposed addition. No further disturbance will occur within the vegetated area located down-slope of the construction area.*
7. *An approved Sedimentation Barrier will be installed downslope of the construction area during all active phases which may result in movement or disturbance of substrate material, to ensure there is no erosion or resulting sedimentation of Aylen Lake as result of activities on site. This barrier will utilize Best Management Practices for construction materials, and will be installed properly, and inspected and maintained as required.*
8. *The Sedimentation Barrier will remain in place until all disturbed substrate has been stabilized using approved methods (geotextile, hydroseeding, etc.).*
9. *No adverse impacts on the adjacent natural features, including Aylen Lake, are anticipated, provided the mitigation measures noted above are undertaken.*

The EIS and above conclusions have been reviewed and the findings are acceptable to the author of this report. With respect to conclusion/recommendation number 3 above, it is worth noting that a survey was not provided as part of the application.

As noted above, Section 2.24 of the Official Plan permits the limited expansion of existing legal non-conforming uses provided that the objectives and development policies of the plan are met.

The proposed expansion would constitute a limited expansion, and despite being located closer to the shoreline of Aylen Lake, the EIS submitted in support of the application concludes that no adverse impacts on Aylen Lake are anticipated as a result of the new construction.

Conclusion and Recommendation

It is concluded that the proposed enlargement of the cottage on the property municipally known as 1552 Aylen Lake conforms to the Township of South Algonquin Official Plan and is consistent with the direction set out in the Township's Zoning By-law. The results of the EIS conclude that no adverse impacts on the adjacent natural features, including Aylen Lake, are anticipated, and the proposed building envelope is entirely located within a historically disturbed section of cleared land on site.

Based on the above planning analysis and the findings of the EIS prepared by Ravenwood Environmental, it is recommended that the Committee of Adjustment approve the Permission to Enlarge application with the following conditions:

1) That the approved development is constructed substantially in accordance with the sketch submitted by the applicant, attached hereto as Appendix 1.
2) That an approved Sedimentation Barrier be installed downslope of the construction area during all active phases which may result in movement or disturbance of substrate material, to ensure there is no erosion or resulting sedimentation of Aylen Lake as result of activities on site. This barrier is to utilize best management practices for construction materials, and be installed properly, and inspected and maintained as required.
3) That the Sedimentation Barrier remain in place until all disturbed substrate has been stabilized using approved methods (geotextile, hydroseeding, etc.).

4) Payment of all municipal legal and planning fees associated with the processing of the application.

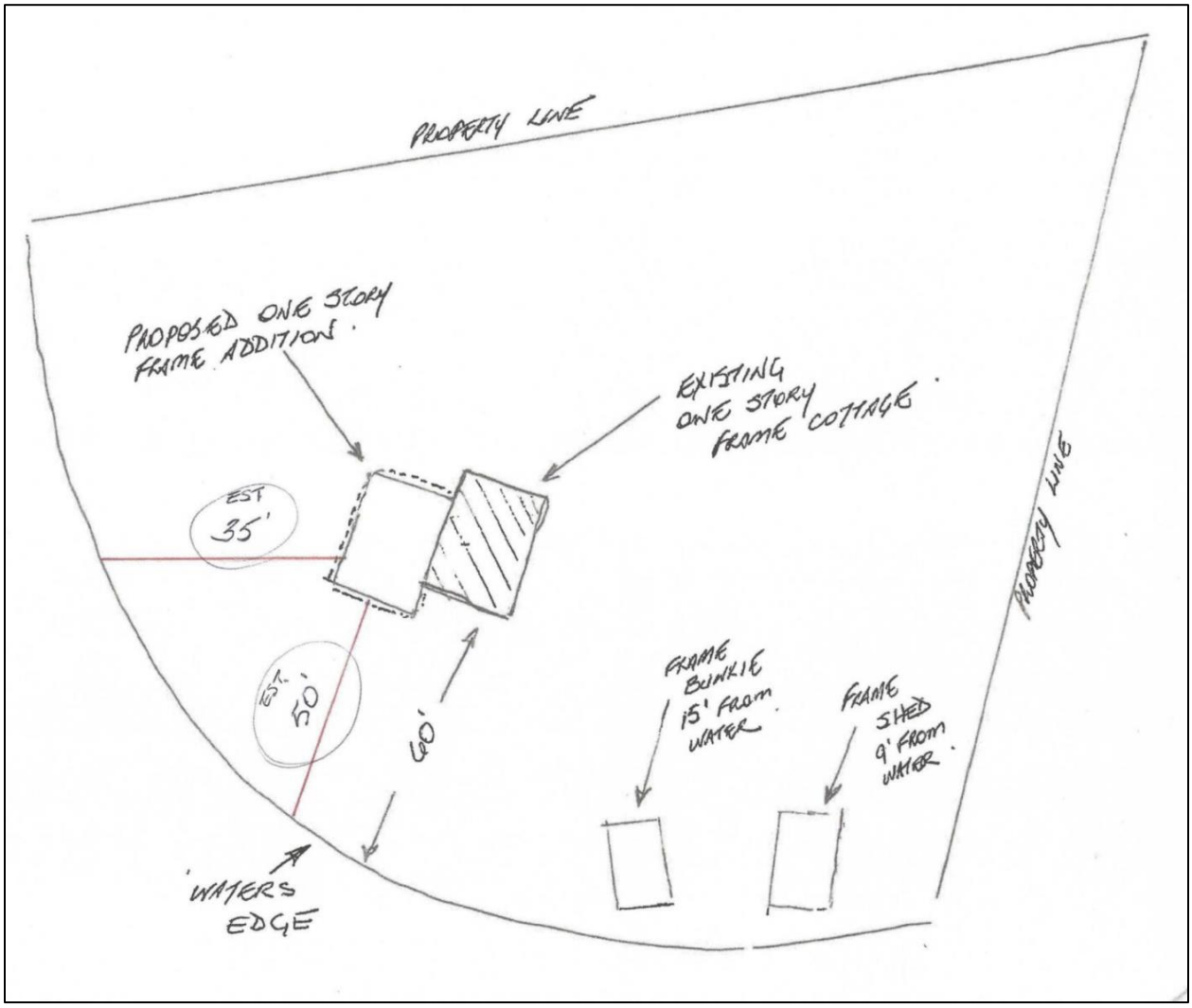
Respectfully,

Jp2g Consultants Inc.
Engineers • Planners • Project Managers

Prepared By:

Anthony Hommik, MCIP, RPP
Manager – Planning Services | Senior Planner

Appendix 1 – Proposed Enlargement (Applicant's Submitted Drawing)



MAY 12, 2023

RESULTS OF FIELD ASSESSMENT FOR PROPOSED COTTAGE ADDITION LOT 12 CONCESSION 14 DICKENS TWP PIN 49225-0372 1552 AYLEN LAKE

RAVENWOOD ENVIRONMENTAL
80 Point Henry Trail
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12 May 2023

Proponents:

Doug and Claire Marsh
11251 Russell Road
Port Perry, Ontario
L9L 1B3

c/o Doug Marsh
P (416) 414-1441
pdwmarsh@gmail.com

Consultant:

Ravenwood Environmental
80 Point Henry Trail
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K8H 2W8

c/o Kristi Beatty
Owner/Project Manager
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Doug and Claire Marsh
11251 Russell Road
Port Perry, Ontario
L9L 1B3

12 May 2023

Re: Ecological Assessment for 1552 Aylen Lake, Part Broken Lot 12 Concession 14, PIN 49225-0372, Geographic Township of Dickens, Township of South Algonquin, Nipissing District

Mr. and Mrs. Marsh:

Thank you for contacting Ravenwood Environmental (Ravenwood) to complete an environmental impact survey on your property at 1552 Aylen Lake, at Part Lot 12 Concession 14 in the Geographic Township of Dickens, (hereafter referred to as "the property", or "the site") (**Figure 1**).

Our understanding of the project is that a small addition is to be constructed along the western side of the existing three-season cottage on the lot, overlooking Aylen Lake to the south-west. The addition will function as a sitting/dining room, and will be attached to the existing living room of the cottage. A Draft sketch prepared for the build by Onsite Design and Drafting (Appendix A) was reviewed prior to visiting the property, and the location of the proposed structure on the ground on site was reviewed during our assessment.

In order to ensure that there will be no adverse impacts to Aylen Lake as a result of your proposed build, a features analysis was requested for your project property by the Township of South Algonquin.

To provide an accurate analysis, a field review of the building area in question was undertaken by Ravenwood Environmental on 8 May 2023 to assess:

- the location of the proposed addition in relation to the existing cottage and the shoreline of Aylen Lake,
- whether the proposed building will adversely impact any existing natural features present on site – specific attention given to those lands within 30m of the shoreline of Aylen Lake

Please find enclosed the results of the general ecological evaluation for the existing property, as well as discussions of the aforementioned concerns from the municipality regarding potential natural heritage features on the site.

Should you have any questions, or require clarification on any information presented in this report, please do not hesitate to contact the undersigned.

Best regards,

Kristi Beatty
Owner/Project Manager
Ravenwood Environmental
C (613) 639-8585
kbeatty@ravenwoodenv.ca

Questions or comments regarding this report or the findings and recommendations outlined herein should be addressed to Ravenwood Environmental at kbeatty@ravenwoodenv.ca

Contents

Background 5
Applicable Policy 5
Survey Results 7
Habitat Assessment 9
Aylen Lake 9
Substrate 11
Habitat 13
Ecosite G033TtDdk: Red Pine-White Pine Conifer Stand 13
Fauna 18
Impacts to Significant Natural Features 20
Aylen Lake 20
Mitigation Recommendations 21
Naturalization 23
Red Pine-White Pine Conifer Stand 24
Substrate 24
Construction Recommendations 24
CONCLUSIONS 29
REFERENCES 22

Background

The proponent proposes to construct a three-season living area along the west side of their existing cottage (see plans at Appendix A). The property is located in Dennison's Bay along the north shore of Aylen Lake, at 1552 Aylen Lake, Geographic Township of Dickens (*Figure 1*). The subject lands are formally known as "PIN 49225-0372, PCL 15871 SEC NIP; Pt Broken Lt 12 Con 14 Dickens being summer resort location as in NP8379; South Algonquin, District of Nipissing". Access to the site is via water only, with the closest public boat launch located at the south-west end of the lake, at the end of Aylen Lake Road (*Figure 1*). The entire owned property is approximately 0.35ha in size, with approximately 115m of frontage along Aylen Lake (Appendix A).

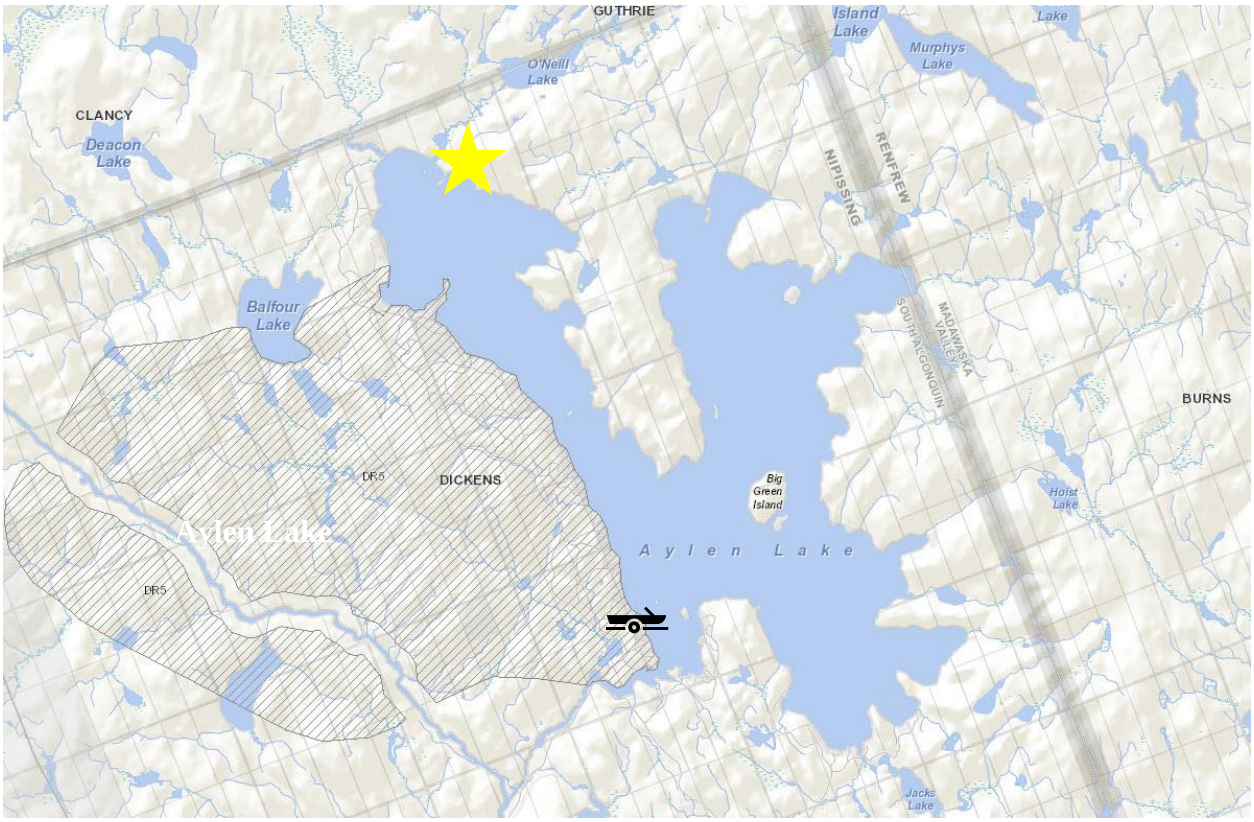

Figure 1 – Approximate location of the subject property (yellow) at 1552 Aylen Lake, Part Lot 12 Concession 14, Geographic Township of Dickens (image CLUPA, 2022)

Applicable Policy

Aylen Lake is designated as a "not at capacity" Lake Trout lake according to the Official Plan (*Figure 2*). Section 5.3.6 of Official Plan of the Township of South Algonquin states that "*Lake Trout lakes classified by the Ministry of the Environment (sic) and Ministry of Natural Resources*

(sic) as "not at capacity" can sustain additional development subject to the following criteria: a) development, including the septic system tile bed, must be set back a minimum of 30 metres from the high water of the lake with non-disturbance of the native soils and vegetation."

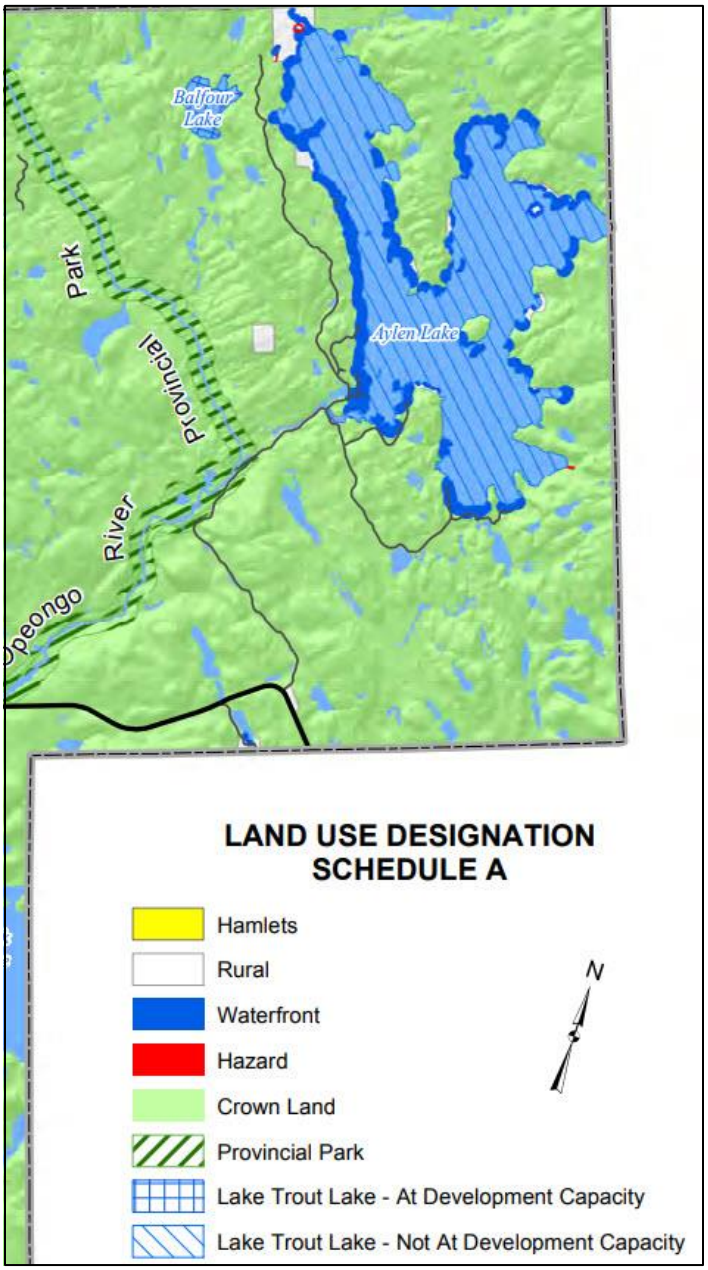

Figure 2 - Excerpt from Schedule A of the Township of South Algonquin Official Plan (2012) showing Aylen Lake as a "not at capacity" Lake Trout lake (image courtesy Twp of SA OP)

The property at 1552 Aylen Lake is designated as "Waterfront" in the Official Plan (OP) of the Township of South Algonquin (2012), which provides guidance to landowners wishing to build on lands so designated in Section 5.0, as follows:

5.4.4 Development and site alteration will be set back from all watercourses within the Township in order to protect the natural features and functions of the watercourse, provide riparian habitat, and minimize the risk to public safety and property. Buildings, structures and sewage disposal systems will be set back at least 30 m (100 feet) from the high water mark of all of lakes, rivers and streams."

Further to the Waterfront development policies of Section 5, additional planning restrictions are noted in Section 10 of the same Official Plan surrounding Fish Habitat, which is defined in Sec. 10.9.1 as those areas which "*include spawning grounds and nursery, rearing, food and migration areas on which fish depend on in order to carry out their life cycle. Development and site alteration shall not be permitted in fish habitat areas, except in accordance with provincial and federal requirements.*"

Furthermore, "*where development is proposed within 120 metres of fish habitat, the proponent will be required to prepare a report to the satisfaction of Council, in consultation with a qualified biologist, outlining the measures that need to be undertaken to ensure that there is no negative impact on fish habitat as the result of the development. In such cases, new development may be permitted provided: (a) it does not harmfully alter, disrupt or destroy the fish habitat area; and (b) there will be no net loss…of productive capacity of the fish habitat area"* per Sec. 10.9.2, Township of South Algonquin Official Plan (2012).

Review of the project with the Township of South Algonquin determined that the proposed building addition designed by the proponent *is* within the mandated 30m setback off the shoreline of Aylen Lake. Due to the development being within that shoreline setback, as well as being within 120m of fish habitat, the development proposal requires an Environmental Impact Study (EIS). The results of said EIS are contained within the following sections of this report.

Survey Results

During assessment of the property for potential natural features that may be adversely impacted by the development, the proposed building envelope, clearings, shoreline, slopes, and wooded areas around the property were traversed on foot by an experienced Biologist. Assessment was undertaken during clear spring conditions between 1200-1400h on 8 May 2023. Weather while on the survey site was clear, with a temperature of 18C, and a moderate breeze (~25kph, or 4 on the Beaufort scale).

During this visit the entirety of the proposed building area was assessed. Surveys were completed to confirm vegetative cover/habitat types, topography, and substrate around the proposed building site and within 30m of the shoreline of Aylen Lake.

The property is a wooded residential lot, with a three-season cottage along the western portion. There is no driveway or road on site, with the only access being by water from Aylen Lake (*Figure* **1**). There is a small area area of maintained lawn along the south, east and west edges of the cottage, and a boathouse and "bunkie" are located along the south boundary of the property (*Figure 3*). The remainder of the site is treed, mature mixedwood forest (*Figure 1; Figure 3*).

Figure 3 - Property at 1552 Aylen Lake showing location of cottage and outbuildings (image LIO 2020)

The property slopes gradually from north to south across the site from ~345masl along the northern corner of the lot, towards the existing cottage at ~343masl, before dropping down to ~339masl along the shoreline of Aylen Lake to the west (lake) side of the house. Overall, elevation changes approximately 2m from the north-east corner of the property across a horizontal distance of ~40m to the proposed building location on the western side of the cottage, before dropping another ~4m vertical elevation in the final 12m horizontal distance to the lake, which is at ~339masl (*Figure 4*).

Figure 4 – Topography based on 5m elevation contours, on and surrounding the cottage (orange) at 1552 Aylen Lake (red) (image courtesy Ontario GeoHub)

Habitat Assessment

Non-disturbed habitat types on site that are within 30m of Aylen Lake were classified using the Ecological Land Classification (ELC) system. The Soils Survey of Renfrew County (Report No. 37, 1964)*, and the Great Lakes St. Lawrence (GLSL) ELC Manual were utilized for all general habitat areas delineated during the survey. **Ontario Soil Survey data is not available for the Nipissing District, however the site is immediately adjacent to lands identified in the Renfrew County Soil Survey around Barry's Bay as being part of the Monteagle and Monteagle-Rock complex.*

Aylen Lake

Aylen Lake borders the west and south sides of the property. It is approximately 9.8km in length, with a maximum depth of 66m (gpsnauticalcharts.com) and an average depth of 27m (Aylen Lake Community Association (ALCA) 2022) (*Figure 5*). Within the project area of Dennison's Bay, the lake drops steeply down along the project shoreline, to a maximum depth of ~36m (*Figure 5*). Of glacial origin, Aylen Lake was once part of the Champlain Sea (10,000-6,000 years ago) (ALCA).

It is considered a “cold-water” lake, and contains numerous sport fish species, including Lake Trout (*Salvelinus namaycush*), Smallmouth Bass (*Micropterus dolomieu*), Lake Whitefish (*Coregonus clupeaformis*), Yellow Perch (*Perca flavescens*), and others (ALCA 2022).

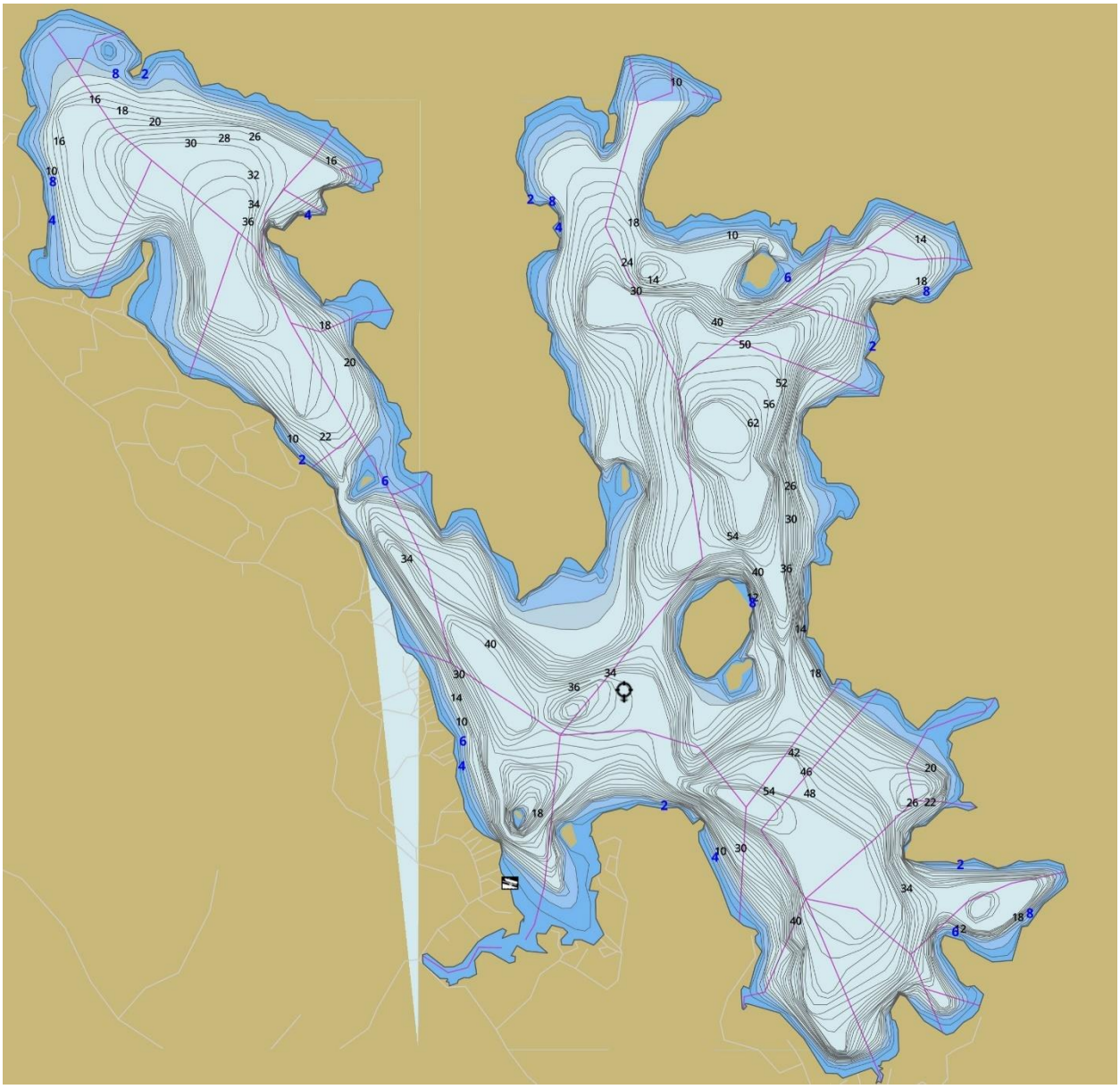

Figure 5 - Bathymetric mapping of Aylen Lake in metres, showing max depth of 66m (courtesy GPSnauticalcharts.com)

Aylen Lake is an ***oligotrophic*** lake, with measured Phosphorus (P) levels at less than 10ug/L (n=4.9ug/L avg), Calcium (Ca) levels of 3.2mg/L, and average Secchi disc readings of 4.83m (n=9 samples)(Ontario Lake Partnership Program sampling, 2019). Oligotrophic lakes are defined as

being low in total nutrients, having a deficiency of aquatic plant life, resulting in clear waters and abundant dissolved oxygen levels, especially at depth. Such lakes are considered prime habitat for cold-water species such as Lake Trout (*Salvelinus namaycush*). As a result, development around the shore of Aylen Lake is strictly regulated by the Township of South Algonquin. Of concern to the planning process is the proximity of the proposed addition to the shoreline of Aylen Lake. Under the Township By-Laws and the Official Plan, new dwellings must be located 30m from the shoreline of the Lake. Additions to existing residences must undergo an Environmental Impact Study to ensure there are no anticipated adverse impacts to the lake ecosystem as a result of the proposed development (Twp of South Algonquin, 2012).

Substrate

On site, bedrock and large boulders were evident throughout the area of the proposed addition, as well as along the shoreline and in the surrounding wooded areas (*Figure 6*).

Figure 6 - Representative section of proposed building area on west side of cottage, showing exposed boulders prevalent across the site (8 May 2023)

Underlying soil characteristics of the area are typical of the Monteagle (Msl) series of gravelly, sandy loam glacial till – granitic origin gravel and rock with rolling to steeply sloping topography characterized by numerous bedrock outcrops. Examination of a soil sample obtained within the proposed building envelope showed the dominant substrate type to be loamy medium sand (LmS) interspersed with numerous coarse fragments (*Figure 7*).

Figure 7 - Representative sample of substrate taken from within the central area of the proposed building envelope showing SimS and coarse fragments (8 May 2023)

According to the Soil Survey of Renfrew County (1964) the Monteagle series "soil parent material is gravelly sandy loam glacial till derived from the local granitic rocks. The depth of soil over the bedrock is never much more than 2 or 3 feet, is fairly uniform on the smoother topographic areas but is variable in the rougher areas where bedrock is exposed. Stones and boulders are common in all areas and many are too large to be removed. In the virgin or uncultivated state these soils have an organic layer (L-H), 1 or 2 inches in thickness over a light gray horizon (Ae) 1 to 2 inches in thickness. Under the Ae there is a dark reddish-brown horizon (Bf1) 9 to 10 inches thick over gravelly, sandy loam (Bf2). The B is crumb-structured, friable, and contains many roots. The olive parent material (C) is stony, gravelly sandy loam (Gillespie, et al., 1964).

The Monteagle-rock complex of the Precambrian Grenville Province (Algonquin Park, 2022) has no potential for agriculture due to the high percentage of rock outcrop. These rocky phase areas are forested and many are difficult to access. This complex pattern of soil and bare rock is also interspersed with muck and peat soils in the numerous and small undrained depressions (Gillespie, et al., 1964).

In relation to the proposed building on site, the presence of such coarse-grained substrate will aid in percolation of water through the soil, resulting in minimal potential for flooding or water pooling

on the property. Any precipitation that occurs is expected to infiltrate the substrate, rather than running off overland or pooling in low areas.

Habitat

Habitat within the site is divided into two (2) types – small pockets of human-disturbed cleared land (lawn, landing) and Pine dominated Conifer forest (*Figure 8*), surrounding the property and leading down to the shoreline.

Figure 8 - Main habitat types on and adjacent to 1552 Aylen Lake, with proposed addition noted (grey square) (image Google Earth c. 25 Aug 2019)

Ecosite G033TtDdk: Red Pine-White Pine Conifer Stand

The vast majority of the habitat on the property will be unaffected by the new construction, and much of the proposed building envelope is already entirely disturbed by historic human cultivation (Figure 8). The area of cleared and forested habitat along the western and southern portions of the property was assessed in greater detail due to its proximity to the proposed structure, and to Aylen Lake. This zone contains the proposed building envelope, and lies within 30m of the edge of the lake. Habitat in this section was assessed to ensure that the proposed addition construction within 30m of the lake would not have any adverse impacts on the shoreline vegetation, water quality or flora and fauna of the lake ecosystem.

Canopy cover within this area of the site consists of mature (>10m) Red Pine (*Pinus resinosa*) and White Pine (*Pinus strobus*), accompanied by Red Maple (*Acer rubrum*), Red Oak (*Quercus rubra*), *Populus* sp., and White Birch (*Betula papyrifera*). Coupled with the expose substrate visible across the site (Loamy medium Sand (LmS) PP1 MR0), this site keys out to Ecological Land Classification (ELC) Ecosite **G033TtDdk *Dry, Sandy: Red Pine-White Pine, Conifer***. In the undisturbed sections of this stand on site, ground vegetation consists of shade-tolerant, dry to fresh soil species including Wild Sarsaparilla (*Aralia nudicaulis*), Bracken Fern (*Pteridium aquilinum*), Canada Mayflower (*Maianthemum canadense)* and Blue-Bead Lily (*Clintonia borealis*).

Vegetation within the sloped section along this south-west (Aylen Lake) side of the site is almost entirely comprised of sparse growth of shade- and acidic-soil tolerant ground vegetation. The area between the cottage and forested habitat around the site includes plant species typical of dry, shaded, disturbed habitats. Commonly recurring native vegetation species present throughout this zone include:

- Balsam Fir (*Abies balsamea*) (regen and understory)
- Bearberry (*Arctostaphylos uva-ursi*)
- Bracken Fern (*Pteridium aquilinum*)
- British Soldiers (*Cladonia cristatella)*
- Canada Goldenrod (*Solidago canadensis)*
- Common Dandelion *(Taraxacum officinale)*
- Common Milkweed (A*sclepias syriaca)*
- Common Ragweed *(Ambrosia artemisiifolia)*
- Common Strawberry *(Fragaria virginiana)*
- Common Yarrow *(Achillea millefolium)*
- Cow Vetch *(Vicia cracca)*
- *Dicranum* sp.
- False Pixie Cup (*Cladonia chlorophaea)*
- Heal-all *(Prunella vulgaris)*
- Ox-eye Daisy *(Leucanthemum vulgare)*
- Philadelphia Fleabane *(Erigeron philadelphicus)*
- *Poa* spp.
- Powder Horn Lichen (*Cladonia coniocraea*)
- Red Clover *(Trifolium pratense)*
- St. John's Wort (*Hypericum perforatum*)

The opening in the canopy created by the existing cottage has allowed for regeneration of White Pine and Balsam Fir trees along the edge of the mature White/Red Pine stand (Figure 9). The section of habitat immediately surrounding the proposed building area is largely cleared, with a few of the mature trees having been removed historically to allow for a clear view of Aylen Lake from the cottage (*Figure 10*).

Figure 9 - Younger understory White Pine and Balsam Fir located around the cottage clearing (8 May 2023)

Figure 10 - Cleared area along south-west corner of property to allow visibility to Aylen Lake (8 May 2023)

There are two small trees that will require removal to allow for the addition to be constructed – a Red Oak (~4m tall) and a White Pine (~5m tall) (*Figure 11*). The remainder of the mature trees around the clearing will remain undisturbed throughout construction.

Figure 11 - Sapling Red Oak and White Pine to be removed prior to construction of addition along west side of cottage (8 May 2023)

Along the base of the slope, on the shoreline of Aylen Lake, additional vegetation species noted include:

- Bittersweet Nightshade *(Solanum dulcamara)*
- Calico Aster *(Aster lateriflorus)*
- Canada Mayflower *(Maianthemum canadense)*
- *Carex* spp.
- Eastern White Cedar (*Thuja occidentalis)*
- Interrupted Fern (*Osmunda claytoniana)*
- Narrow-leaved Meadowsweet (*Spiraea alba)*
- Sensitive Fern *(Onoclea sensibilis)*
- Speckled Alder (*Alnus incana ssp. rugosa)*

The assessed building site is located within mostly-cleared land densely covered in pine needles, with sparse native ground vegetation.. The property drops approximately 7m from the north-east corner of the site (~346masl) down to the lake level (~339masl), with the building area located at ~342masl (*Figure 4*). The area along the west side of the existing cottage, where construction is to occur, is mostly level at the building location (*Figure 12)*, but then slopes gradually away from the cottage towards the lake to the west and south *(Figure 13*).

Figure 12 - Cleared area along west side of existing cottage, where proposed addition is to be constructed (8 May 2023)

Figure 13 – Representative section of natural slope along west side of building area, facing cottage from top of slope to Aylen Lake (8 May 2023)

Beyond the level area surrounding the cottage clearing, the land slopes sharply down to the shore of Aylen Lake along the entire west and south boundary of the property (*Figure 14*). The shoreline is comprised of large boulders and coarse fragments of granite, however vegetation is well established throughout. This steep slope is well vegetated with mature Red and White Pine, Speckled Alder, White Birch, and various herbaceous species. Mature Pines extend across the

entire plateau at the top of the bank, back to the cleared area where the build will take place (*Figure 14*). This established vegetation between the project area and the shoreline will remain undisturbed through all phases of construction, and no additional trees will be removed in or around the clearing, or along the slope.

Figure 14 - Representative section of slope down to the shore of Aylen Lake showing established vegetation amongst boulder and cobble substrate (8 May 2023)

The sections of the property that exist within the building area and the remainder of the 30m setback along Aylen Lake are well-vegetated and stable, with no exposed or eroding unconsolidated substrate (Figure 6; Figure 12). Large natural rocks are established along the entire shoreline and the base of the slope (below and well above the high-water mark) (*Figure 14)*, providing additional slope stability and reducing erosion potential along the shoreline.

As noted above, the proposed construction area is located along the west side of the existing cottage, within a relatively cleared area (*Figure 12*). Access to the construction site will be via the main dock and/or landing area on the south-east corner of the lot (the only access to the property). On the date of survey the dock had not yet been installed for the season, however the landing was open. The building area is readily accessible from both the dock and clearing via established paths

(Figure 15), so no additional clearing of mature forested habitat will be required to allow equipment to travel to the building site.

Figure 15 – Access to work area from dock (past "bunkie" showing established access path (8 May 2023)

Fauna

Within the project area, there was little sign of fauna present on the survey date. Care was taken to search for tracks and scat, as well as other sign (feeding, fur, feathers) and calls. Confirmed incidences of species were also obtained from previous surveys by Ravenwood Environmental within the local area (Ravenwood, 2022), and from "Research grade" iNaturalist observation data (iNaturalist.com). The following is a list of confirmed and potential species for the subject property (note, this is NOT a complete list of all possible species for the area):

- American Crow (*Corvus brachyrhynchos*)
- American Robin (*Turdus migratorius)*
- American Toad (*Anaxyrus americanus*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Belted Kingfisher (*Megaceryle alcyon*)
- Black-and-white Warbler (*Mniotilta varia*)

- Black-backed Woodpecker (*Picoides arcticus*)
- Blackburnian Warbler (*Setophaga fusca*)
- Black-throated Blue Warbler (*Setophaga caerulescens*)
- Black-throated Green Warbler (*Setophaga virens*)
- Burbot (*Lota lota*)
- Canada Goose (*Branta canadensis*)
- Chestnut-sided Warbler (*Setophaga pensylvanica*)
- Common Loon (*Gavia immer*)
- Common Merganser (*Mergus merganser)*
- Common Raven (*Corvus corax)*
- Damselflies (*Zygoptera spp.*)
- Dragonflies (*Anisoptera spp.*)
- Eastern Chipmunk (*Tamias striatus*)
- Eastern Crayfish (*Cambarus bartonii*)
- Eastern Garter Snake (*Thamnophis sirtalis sirtalis*)
- Eastern Wolf (*Canis lycaon*) SAR
- Hermit Thrush (*Catharus gutattus*)
- Hooded Merganser (*Lophodytes culcullatus*)
- Lake Trout (*Salvelinus namaycush*)
- Merlin (*Falco columbarius*)
- Midland Painted Turtle (*Chrysemys picta marginata*)
- North American Medicinal Leech *(Macrobdella decora*)
- Northern Flying Squirrel (*Glaucomys sabrinus*)
- Northern Water Snake (*Nerodia sipidon*)
- Ovenbird (*Seiurus aurocapilla*)
- Pine Warbler (S*etophaga pinus*)
- Red Squirrel (*Tamiasciurus hudsonicus*)
- Snapping Turtle (*Chelydra serpentina*)
- Snow Bunting (*Plectrophenax nivalis*)
- Snowshoe Hare (*Lepus americanus*)
- Swainson's Thrush (*Catharus ustulatus*)
- Turkey Vulture (*Cathartes aura*)
- Veery (*Catharus fuscescens*)
- White Sucker (*Catostomus commersoni*)
- *White-tailed Deer (Odocoileus virginianus)*
- Yellow-rumped Warbler (*Setophaga coronata*)
- Yellow Warbler (*Setophaga petechia*)

Given the small area to be impacted by the proposed project, the current cleared state of the building envelope, and the lack of additional disturbance anticipated as a result of the cottage

addition construction, there are no anticipated adverse impacts to any of the species listed above. No significant habitat will be impacted for any species on or adjacent to the site.

Impacts to Significant Natural Features

The proposed project is to allow for a three-season living and dining area to be attached to the west side of the existing cottage (Figure 6; Appendix A). The addition will be constructed with concrete footings, with full walls. Windows from the existing west wall of the cottage will be re-used on the new addition. The final size of the addition is estimated at 26'6"x 44' (8m x 13.4m), with the 44' length running the extent of the side of the existing cottage, and 26'6"' out from that structure (Appendix B).

Anchoring of the addition into the ground will be accomplished using concrete footings or "big foot" post anchors. Both options will allow for minimal disturbance to the surrounding substrate when compared to a full block-style foundation. The outer frame of the floor will be 3-ply 2x8 beams, resting on the anchor or on 16"x16" block piers with 24"x24" poured bases. The remaining joists will be single 2x8 boards on 16' centers with across the span of the floor (with bridging). The center joist will also be a 3-ply 2x10x14 beam (Appendix B).

The cleared area of the building envelope will need to be levelled, and the aforementioned two (2) trees removed prior to construction. It is not anticipated that any other mature trees will need to be disturbed to allow equipment to access the side of the cottage. Any extraction into the substrate to secure footings will be done with as little disturbance to the substrate downslope as is feasible, while also ensuring the project can be constructed as safely and efficiently as possible.

Aylen Lake

Fish species within the lake are well documented and understood – no protocol-based fish surveys were completed for this project. The lacustrine habitat associated with Aylen Lake is well removed from the proposed construction area, and will not be impacted by continued use of the site, nor are adverse impacts anticipated to the lake habitat as a result of the proposed construction.

The substrate on site is loamy medium sand. Given the highly porous nature of the soil, it is not anticipated that standing water will be a concern, as drainage through the granular material will be rapid. When exposed to high volumes of precipitation on a sloped decline, sand can be prone to erosion due to the open, granular structure and lack of cohesion of particles. The slope down to the shoreline, while steep, is currently stabilized against erosion with natural vegetation, a deep layer of dead and decaying Pine needles, and numerous rocks embedded into the slope. There is no exposed substrate along the slope. The presence of a near-level section along the top of the slope will assist in slowing any precipitation that runs off from upgradient.

The area between the project site and Aylen Lake contains partially cleared land covered with a deep layer of Pine needles around the construction site, with embedded natural rock at the base of the slope (near the high-water mark). This configuration will assist in slowing overland runoff due to precipitation. In addition, the loamy medium sand substrate is considered to have excellent drainage, which will act to allow percolation of rainwater and reduce runoff and potential erosion on site.

The building footprint is set back from the shoreline, with 10-15m horizontal distance of vegetated land between the addition and the edge of the lake (Appendix C). This vegetated area will be maintained insofar as possible during all phases of construction. There is no anticipated potential for erosion or sedimentation of Aylen Lake or the shoreline habitat of the lake as a result of any phase of the proposed project. In order to ensure that this sensitive lacustrine ecosystem is not affected by construction of the cottage addition, the following mitigation recommendations are proposed.

Mitigation Recommendations

While construction is underway on site, care must be taken to ensure that rain and resulting surface water do not create rivulets or channels through the substrate. Despite the current general stability of the sloped area between the construction envelope and Aylen Lake, it is recommended that the contractor install a section of geotextile or other approved sedimentation barrier along the south-west (Aylen Lake) side of the active construction area. This barrier should be as close to the top of the slope as possible while not interfering with construction activities (Figure 16). It should extend beyond the area to be disturbed on both ends, and curved upslope at the ends to prevent material running around the end(s) of the barrier. It shall be installed prior to any construction beginning, and maintained during all phases of building requiring disturbance to the substrate, and during all phases where large equipment is on site.

Additionally, if at any time construction equipment or supplies are brought onto the site from the shoreline clearing/ landing (*Figure 8*), an additional sedimentation barrier shall be installed to prevent erosion along the shoreline in that clearing (*Figure 16*). This barrier may consist of straw bales or geotextile, and shall be located along the shoreline of Aylen Lake, above the high water mark. Installation shall be as above. The barrier (e.g. straw bales) may be removed to allow larger items/equipment to pass, however it shall then be re-installed.

The geotextile/sedimentation screen(s) should be properly installed according to industry Best Management Practices, with the bottom of the fabric buried and anchored to prevent eroded material from running under the barrier (*Figure 17*). The sedimentation barrier is to be inspected and maintained through all phases of construction that may result in disturbance to the substrate to prevent erosion/sedimentation of the Lake.

Figure 16 - Approximate location of sediment control barrier(s) (yellow) to be installed between construction area and slope to Aylen Lake, and along the shoreline in the south-east clearing (as needed) (image courtesy CLUPA)

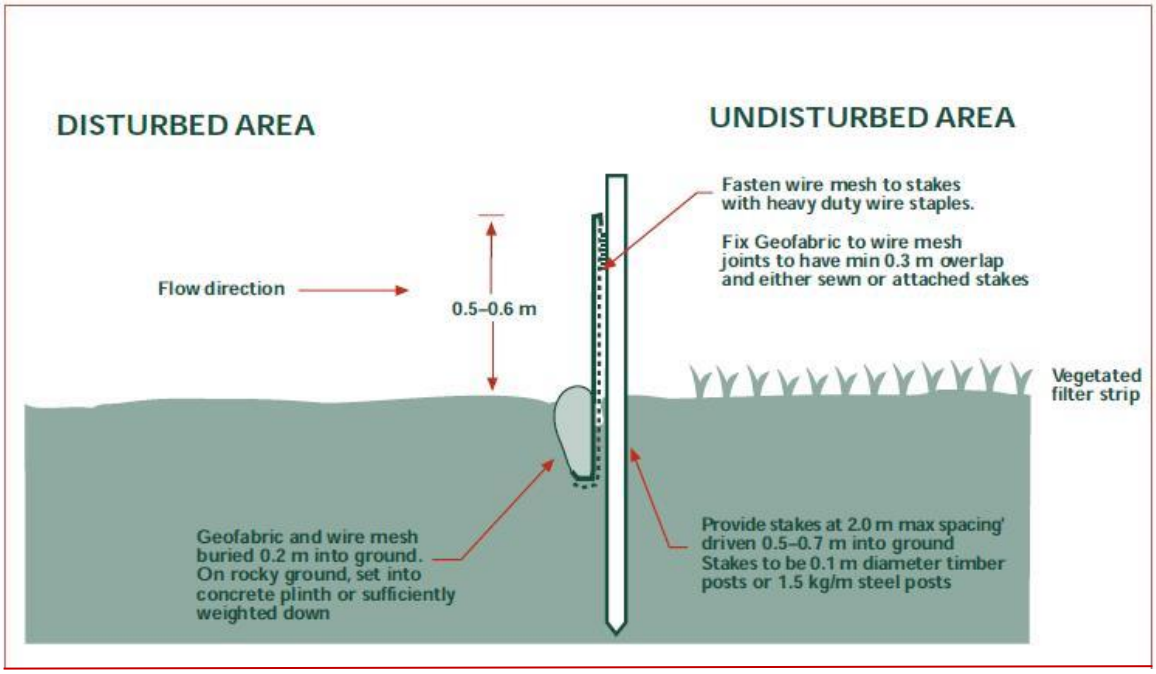

Figure 17 - Recommended technique for effective sediment barrier/silt fence installation (image courtesy Admerch.com)

Sedimentation barrier(s) shall remain in place until all active construction that may result in disturbance to the substrate is complete and the disturbed area(s) have been stabilized. If exposed substrate remains post-construction, the sediment barrier shall remain in place until those disturbed areas are stabilized using geotextile, hydroseeding, or other approved means.

If the landing clearing is anticipated to be utilized for all shoreline docking and equipment/supply movement, it is further recommended that the shoreline and upslope lands be covered with plywood, matting or other suitable footing to protect the underlying substrate and vegetation from being ripped up or significantly disturbed. Such a platform/mat shall remain in place for the duration of movement of equipment and supplies across the clearing area.

Naturalization

While there are no current signs of erosion or sedimentation on site, some remediation/naturalization of the site may be required. It is feasible that the proponent could consider increasing the native vegetation along the south edge of slope leading down to the shoreline of Aylen Lake. Introducing additional NATIVE shrubs or herbaceous plants along the slope between the addition and Aylen Lake will have several benefits:

- Increasing local biodiversity by adding variety through native species
- Increasing the stability of the slope through additional mature root systems
- Additional capture of sediment at source, before it reaches Aylen Lake from upslope
- Provision of flowering species will benefit pollinators such as bees, butterflies, moths and hummingbirds

Recommended planting would be completed within/"behind" the geotextile barrier outlined above, after construction has been completed but before removal of the barrier. Plants can be hand-planted, with no requirement for disruption to the entire area, nor a need for a formal garden to be created (unless desired by the proponent). The intent is to introduce a naturalized, unmanicured area with more mature vegetation to increase the stability of the upper slope adjacent to the cottage, while also increasing species diversity.

Given the partially shaded nature of this side of the site, the conifer dominated stands associated with the area, and the well-drained, acidic, sandy soils, the following species are recommended options:

<u>Native to Ontario</u>

- Bulblet Fern *(Cystopteris bulbifera)*
- Canada Goldenrod (*Solidago canadensis*)
- Common Milkweed (*Asclepias syriaca)*
- Ditch Stonecrop (*Penthorum sedoides)*
- Field Thistle (*Cirsium discolor)*
- Flowering Raspberry (*Rubus odoratus*)
- Foamflower (*Tiarella cordifolia*)

- Large-flowered Beardtongue (*Penstemon grandiflorus*)
- Large-flowered Bellwort (*Uvularia grandiflora*)
- Low-bush Blueberry (*Vaccinium* spp.)
- Low-bush Honeysuckle (*Diervilla lonicera*)
- Maidenhair Fern *(Adiantum pedatum)*
- Marginal Wood Fern *(Dryopteris marginalis)*
- Oak Sedge *(Carex pensylvanica)*

Cultivar (Non-Spreading)

- *Hosta* spp.
- *Sedum* spp.
- Blueberry *(Vaccinium* spp.*)*
- Raspberry/Blackberry (*Rubus* spp.)
- Bleeding Heart (*Lamprocapnos spectabilis)*

Red Pine-White Pine Conifer Stand

The proposed building envelope will be prepared with care to impact the forested habitat on site a little as possible. No additional mature trees will be felled around the existing building envelope. No additional clearing will be undertaken within 30m of the shoreline of Aylen Lake. During site preparation and construction, care will be taken to minimize additional damage to the surrounding mature trees along the driveway and perimeter of the lot. All vegetation between the building envelope and the shoreline of Aylen Lake will be left intact and undisturbed. Provided no trees are removed, there is no further mitigation recommended for the forested area(s) on site.

Substrate

There are no paved or concrete features on site, allowing precipitation and spring snow melt to percolate into the highly permeable soils on site. However, due to the presence of the loose, granular, loamy medium sandy substrate in the area around the construction envelope, there is a concern surrounding storm water management, specifically related to runoff from the roof of the building post-construction.

Construction Recommendations

In order to prevent erosion of the soils surrounding the cottage and addition, and potential sedimentation of Aylen Lake due to the eroded materials, proper diversion of rain/snow melt from the roof of the structure must be considered. Erosion as a result of water falling from the roof directly, and from gutter downspout drainage at ground level, are both sources of erosion around a home (*Figure 18*). This runoff can also cause foundation issues, flooding of the area around the home, soil saturation and mould growth, and impacts to landscaping in the vicinity of the home.

Figure 18 - Erosion and water damage as a result of roof runoff impacting the ground (image courtesy Building American Solution Centre)

Installation of ***either*** eavestrough coupled with proper design and maintenance of downspouts, ***or*** an accepted natural water diversion option will need to be incorporated into the final design of the addition, in order to prevent displacement of substrate around the cottage, and potential sedimentation of Aylen Lake due to overland runoff of soil and/or particulate matter.

Option 1 – *Eavestrough/Gutter and Downspout(s)* – If eavestrough is selected for roof runoff control, it is recommended that it be installed along the bottom edge(s) of all sloping roof sections to capture runoff from rain events flowing off the hard surface, before it impacts the ground. Eavestrough should be installed with a slight slope towards the downspout (*Figure 19*), to ensure water does not collect in the trough, where it can ferment, cause mold, and become habitat for biting insects such as mosquitoes. Gutter material can range from PVC or plastic through to aluminum or clay – selection is limited only by the proponent's budget and aesthetic choices.

Eavestrough/gutters shall be installed in order to capture a majority of rainfall hitting the roof sections of the addition, and shall be sized according to manufacturer's recommendations for width and depth to ensure capacity is sufficient for the roof area rainwater will be collected from.

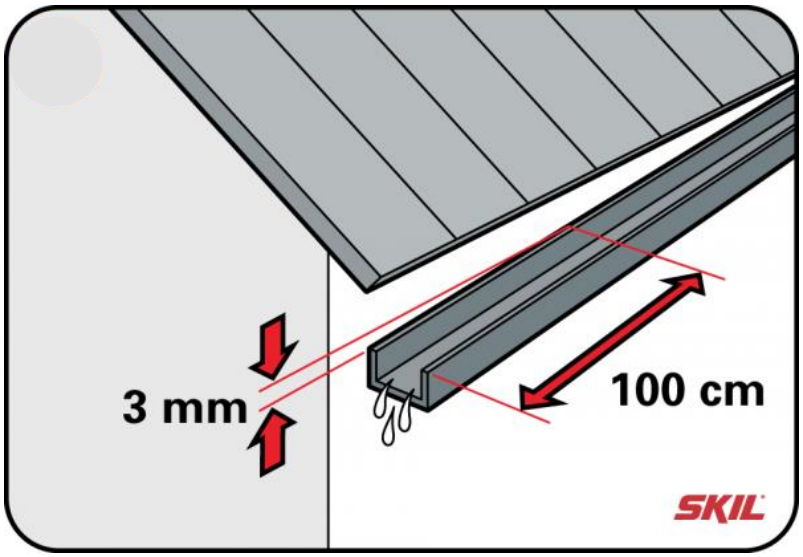

Figure 19 - Recommended slope on eavestrough installation of 3mm vertical drop per 1m horizontal distance (image courtesy Skil.com)

Downspouts are combined with eavestrough, and utilized to direct flows from the eavestrough on the roof to a safe area on the ground in order prevent erosion as a result of large water volumes being directed into a single area. All downspouts should be directed onto non-erodible material – cobble, gravel, concrete, interlock or similar.

There are numerous eco-friendly designs that incorporate downspout drainage into naturalized features such as rain gardens or "dry creek beds" (*Figure 20, Figure 21*). Alternatively, downspouts can be directed into a rainwater storage container or drum (*Figure 22*), and the captured water then used around the home or property (bathing, laundry, garden irrigation, etc.).

Figure 20 - Option for "rain garden" downspout drainage capture (image plan-it-earth design)

Figure 21 - Option for "rain garden" downspout drainage capture (image courtesy anokaswcd.org)

Figure 22 - Rain barrel at end of downspout to collect rain runoff from roof for use around property (image Pinterest)

Option 2 – Rainfall runoff from the roof can also be incorporated into landscaping placed directly beneath the roof edge(s), eliminating the need for eavestrough/gutters to be installed (*Figure 23*). Such landscaping, or "drip-line trenching" is designed to withstand the direct drip force of water running off the roof, such that it slows the fall of water, allowing it to seep slowly into the underlying substrate. Generally, the area beneath the drip line is excavated to create a shallow trench approximately 45cm wide and 15-20cm deep. The trench is lined with geotextile and then filled with gravel, cobble or other small to medium sized stones. The stones act to intercept the rainfall from the roof, reducing the pressure of the falling water, and allowing it to slowly percolate through the geotextile and into the underlying soil.

Figure 23 - Dripline-trench installed below edge of roof to prevent erosion as a result of roof runoff (image courtesy Acton Wakefield Watersheds Alliance)

Where this option is put in place, it is important that stones NOT be removed from local waterways and watercourses for use in the landscape feature. Rather, importing clean stone or gravel for this purpose is recommended, so that disruption to local natural habitats is minimized.

Additional ideas on management of rainfall runoff exist, and multiple design options can be combined for an effective, attractive, low maintenance option to mitigating erosion. Ideas can be found online through a variety of websites, including https://www.wikihow.com/Handle-Roof-Runoff-Without-Gutters and https://homeguides.sfgate.com/control-erosion-around-house-foundation-102902.html .

CONCLUSIONS

At the request of the proponents, Mrs. Claire and Mr. Doug Marsh, a proposed construction site was assessed in relation to potential impacts of the project on natural features on and adjacent to the building envelope. The project area is located at 1552 Aylen Lake, within Part Broken Lot 12 Concession 14, in the Geographic Township of Dickens, Township of South Algonquin (*Figure 1*).

The proponent and Township Planning Staff wished to confirm that there would be no adverse impacts to any natural features adjacent to the proposed building envelope established during initial consultation. The overall ecological review of the building site and surrounding habitat assessed existing conditions, topography and flora. Potential fauna species were also noted for the site. In determining potential effects of the proposed building, consideration was given to assessing any potential adverse effects on the natural features on and adjacent to the site, with a particular focus on the shoreline and water of Aylen Lake.

Field assessment and surveys, Nipissing District policies and land designations, Township of South Algonquin Zoning Official Plan provisions, the Provincial Policy Statement (PPS), existing resource mapping from the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF), Soil Survey of Renfrew County data, Aylen Lake bathymetry data, and Land Inventory Ontario (LIO) database information were analyzed in consideration of the location, value and quality of the natural features and historic disturbance on site. Particular attention was focused on the habitat along the west side of the property, where the proposed cottage addition will occur within 30m of Aylen Lake.

Upon consideration of all of the information above, the following conclusions can be drawn:

1. The property is largely disturbed in the area of the proposed construction due to historic human cultivation on site (most trees cleared, little vegetation present).
2. Natural undisturbed habitat on site is located on all sides of the existing cottage on the site, and all will remained in its natural state post-construction.
3. The proposed project has been surveyed, and addition designed by professionals to incorporate best available technologies and best management practices to minimize disturbance to the site.
4. The proposed building envelope is entirely located within a historically disturbed section of cleared land on site.
5. The construction area occurs upslope of a well vegetated section of land, and upslope of the shoreline of Aylen Lake.
6. With the exception of two small trees, there is no additional clearing required for the proposed addition. No further disturbance will occur within the vegetated area located down-slope of the construction area.

7. An approved Sedimentation Barrier will be installed downslope of the construction area during all active phases which may result in movement or disturbance of substrate material, to ensure there is no erosion or resulting sedimentation of Aylen Lake as result of activities on site. This barrier will utilize Best Management Practices for construction materials, and will be installed properly, and inspected and maintained as required.
8. The Sedimentation Barrier will remain in place until all disturbed substrate has been stabilized using approved methods (geotextile, hydroseeding, etc.).
9. No adverse impacts on the adjacent natural features, including Aylen Lake, are anticipated, provided the mitigation measures noted above are undertaken.

After consideration of all available information, it is the opinion of the author that the proposed building project, in its proposed location, will have minimal overall ecological impacts to the natural features on and adjacent to the site, and will not affect existing land uses within the surrounding properties. With Best Management Practices incorporated for prevention of erosion and resulting sedimentation, there should be no adverse impacts to the waters or shoreline of Aylen Lake as a result of the construction proposed.

A Minor Variance may be required for the proposed development to be consistent with the land use policies outlined in the Provincial Policy Statement, Township of South Algonquin By-Laws, and local Official Plan (as needed). This variance will permit the proposed addition within the 30m setback off of Aylen Lake.

Kristi Beatty
Biologist/Project Manager

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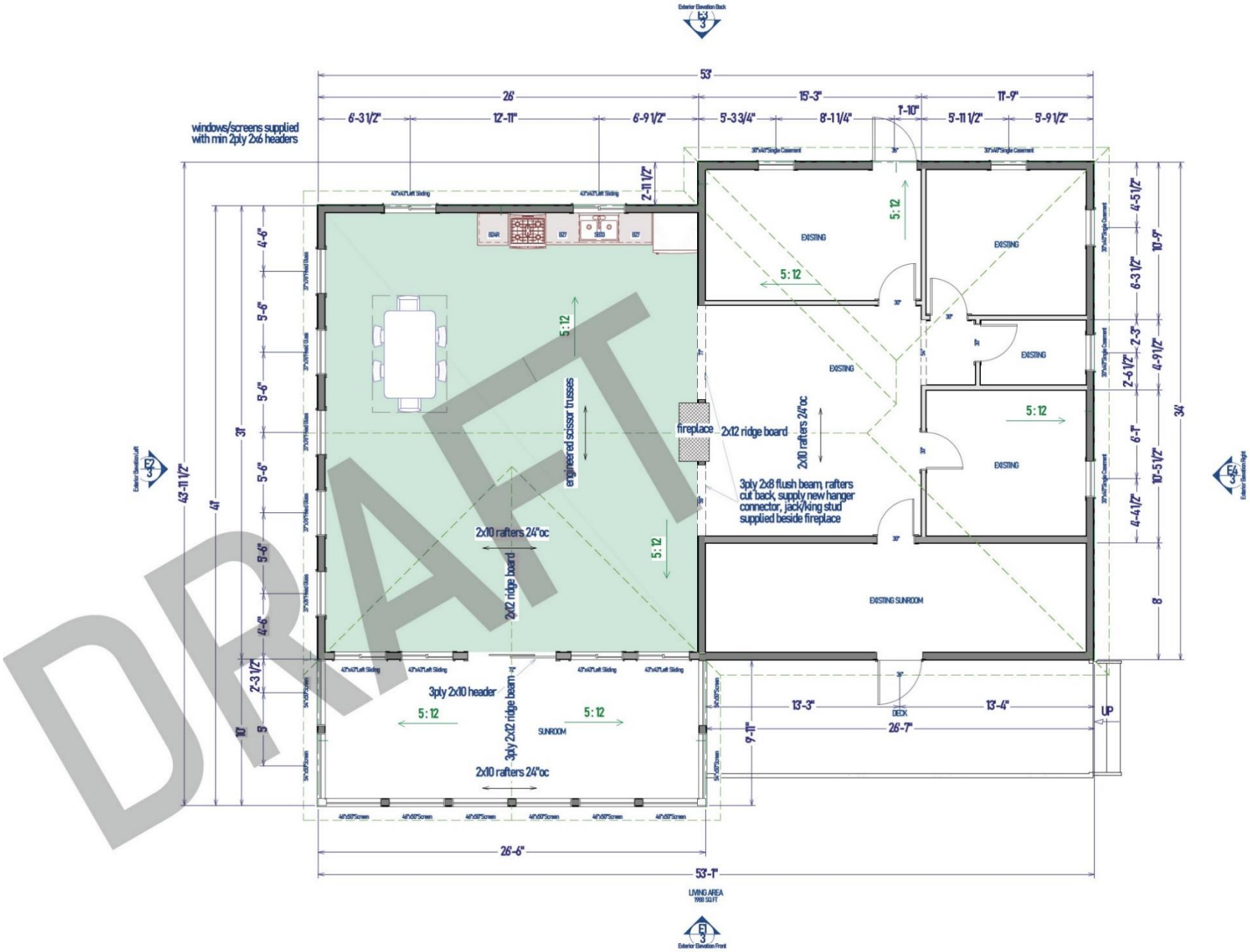
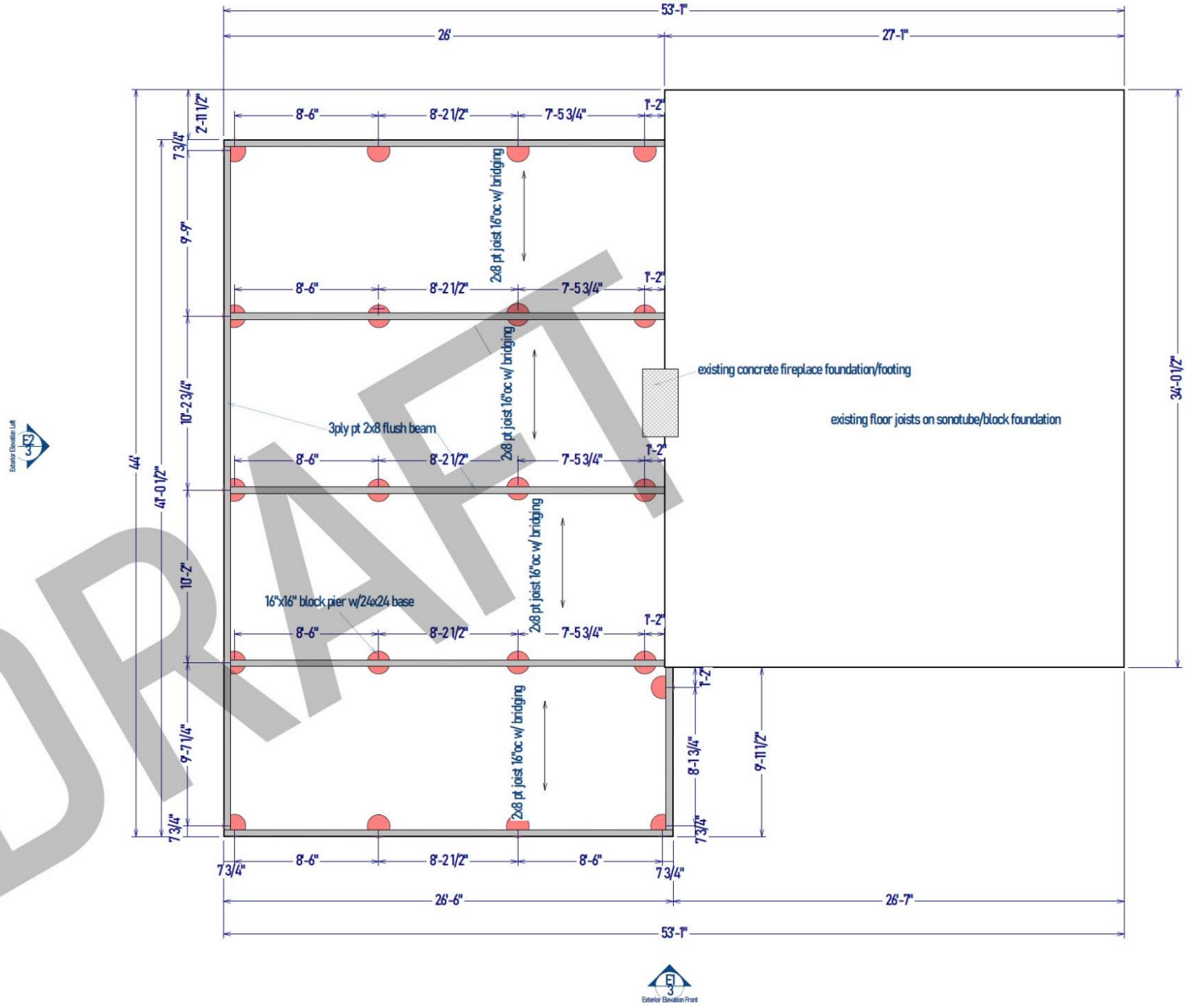
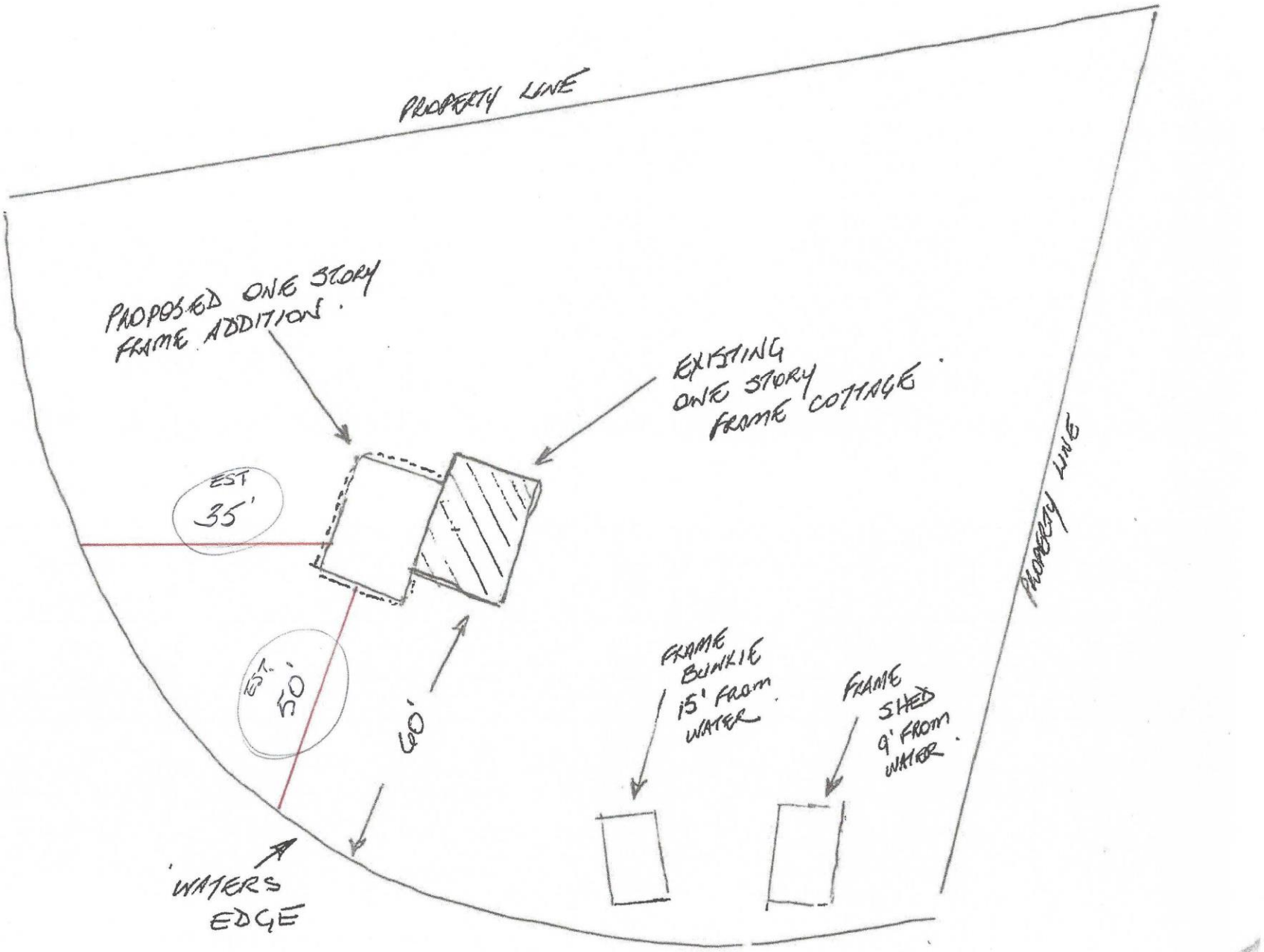
12 May 2023

APPENDIX A – Sketch of Proposed Cottage Addition for 1552 Aylen Lake (OnSite Design and Drafting Ltd., Sept 2022)




53'-1"
26'
27'-1"
8'-6"
8'-2 1/2"
7'-5 3/4"
1'-2"
2'-11 1/2"
7 3/4"
9'-9"
10'-2 3/4"
41'-0 1/2"
44'
10'-2"
9'-7 1/4"
2x8 pt joist 16"oc w/ bridging
existing concrete fireplace foundation/footing
existing floor joists on sonotube/block foundation
3ply pt 2x8 flush beam
16"x16" block pier w/24x24 base
34'-0 1/2"
8'-1 3/4"
9'-11 1/2"
8'-6"
26'-6"
26'-7"
Exterior Elevation Left
Exterior Elevation Right
Exterior Elevation Front

APPENDIX C – Sketch of Property at 1552 Aylen Lake (D. Marsh, 2022)



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