



Technical Memorandum

Date: January 14, 2026
To: Jonathon Campbell, MacDonald Development Corporation
From: Nikita Planz, M.Sc., R.P.Bio, Shane Pedersen, B.Sc., A.Ag
File: 25-5358 | Version 1
Subject: Lakestone Development Wildlife Corridors and Movement Pathways.

1.0 INTRODUCTION

Ecoscape Environmental Consultants Ltd. (Ecoscape) has been retained by the MacDonald Development Corporation (MacDevCorp) to provide a memorandum (memo) commenting on wildlife corridors and movement pathways within the Lakestone Development. Ecoscape understands that this memo was requested by the District of Lake Country (DLC) during the Phased Development Agreement discussions for the larger Lakestone Development.

The consideration of wildlife moment and connectivity post-development is critical to maintaining ecosystem functionality and limiting harm to the natural environment. The benefits of natural area retention, or restoration, are limited if areas are isolated from wildlife (i.e. a patch of intact ecosystem surrounded by development with no safe movement pathways). Isolated natural areas also lead to increased wildlife mortality, via roadkill and other indirect mechanisms, like loss of access to resources. Isolation also results in genetic islands, which may reduce a population's resilience to disease and evolutionary pressures.

In general, pre-existing wildlife pathways, or wildlife corridors, should be maintained post development with sufficient buffers to reduce human-wildlife conflicts and make the corridors appealing to wildlife. Some species will utilize the corridors solely for passage while other species will treat them as core habitat, provided sufficient resources (food, water, shelter) are available. Corridors function best when they are wide, unfragmented, and have abundant cover features like logs, brush piles, burrows, vegetation, and rocky crevices.

When pathways cannot be maintained, wildlife crossings, culverts or overpasses, and signage may be installed to mitigate harm, although the efficacy of these mitigation measures is limited.

1.1. Lakestone Wildlife Pathways

Wildlife corridors on the property indicate probable movement pathways for various species and are ranked as primary, secondary, and tertiary to denote relative importance (**Figure 1**). As the layout provided to Ecoscape was preliminary for the future phases, **Figure 1** represents our best interpretation of wildlife movement across the property; significant grading, retaining walls, and slope changes may impact the presumed paths. It is also assumed that the pathways will be maintained in a natural condition. How these localized corridors fit within the larger context of the other high-level ecological connectivity corridors through Lake Country is displayed in **Figure 2**.

Based on previous site assessments, it is expected that Western Rattle Snake, Great Basin Gopher Snake, Rubber Boa, Western Painted Turtle, Bats and Great Basin Spadefoots may use the property and have been considered. Larger wildlife may include Moose, Mule Deer, Black Bear, Cougar, and other smaller mammals. It is likely that some of these species, especially larger mammals, will no longer use the property, or use it less frequently, with the proposed development.

The primary corridors connect different habitat types to support different trophic levels and facilitate movement within and through the property. They have greater widths compared to secondary and tertiary corridors, and are generally characterized by greater vegetation cover, more complex vegetation communities, and link natural movement pathways such as ridges, gulleys, and linear water features. Corridor 1 contains most of the sites water features and links exterior wetland features. Corridor 2 provides an additional north-south connection along the property's western rocky, open forest slopes, which are favourable for several critical life requisites of reptile species and contain both. Corridor 2 also links corridor 1 to core habitat south of the property. However, corridor 2 loses its effectiveness at the north end, as it is blocked by recently constructed residential lots, which effectively prevent movement north.

Secondary corridors have more defined roles and provide connectivity within the property, particularly to and from wetland and riparian features. They follow usage patterns similar to those of primary corridors but are more aligned with amphibians, small mammals, and birds. Corridor 9 connects the primary corridors beyond the east boundary of the property toward Knopf Brook, a stepping stone to Middle Vernon Creek, the primary north-south riparian corridor in Lake Country.

Tertiary corridors outline possible movement corridors up the south-facing slope, using small gully features, consistent slopes, and more abundant vegetation cover to define their boundaries. Corridors, like 7 and 8, provide localized connections between similar habitat types for specific species.

1.1.1 Recommendations and Concerns

The following provides a list of concerns in regard to wildlife movement and connectivity:

- Connectivity pinch points and barriers, meaning corridors with a width less than 30 m or that abruptly end due to an anthropogenic barrier, have been identified within the property (**Figure 1**, hatched areas). These pathways are less than ideal and should be flagged for additional consideration; specifically, corridors 1, 2, 3, 5, 7, and 10.
- Development around the large wetland, accessed via corridors 4 and 10, may have an isolating effect for wildlife. The narrowness of corridors 4 and 10 also reduces the quality of habitat. Ideally, this wetland would not be surrounded by lots and roads on all sides so that wildlife use it in a meaningful way for their daily needs, such as hydration and feeding.
- There is a lack of connection north of Lakestone, especially on the northwest boundary, so it is important that the northward extension of corridors 1 and 2 not be blocked further as additional development occurs within the DLC.
- The proposed development relies heavily on culverts to ensure connectivity across roads. These will require permanent fencing to prevent road mortality of amphibians and reptiles. Responsibility for ongoing and long-term maintenance, based on manufacturer guidelines and materials, should be determined and accounted for.
 - Large wildlife will still need to cross over the road to move throughout the property. Mitigation is limited to signage and public education.

2.0 LIMITATIONS

This report has been prepared by Ecoscape and is intended for the sole and exclusive use of MacDonald Development Corporation (MacDevCorp), for the purposes set out in this report. Ecoscape has prepared this report with the understanding that all available information on the past, present, and proposed conditions of the subject property have been disclosed. Ecoscape has relied upon personal communications with MacDonald Development Corporation (MacDevCorp) and other information sources to corroborate the documents and other records available for the subject property. MacDonald Development Corporation (MacDevCorp) has also acknowledged that in order for Ecoscape to properly provide the professional service, Ecoscape is relying upon full disclosure and accuracy of this information.

Any use of this report by a third party, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Ecoscape accepts no responsibility for damages, if any, suffered by any third party as a result of actions or decisions made based on this report.

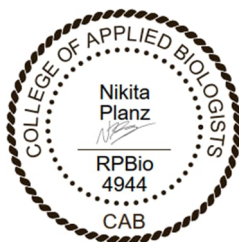
3.0 CLOSURE

We trust that this memo satisfies the present requirements. Should you have any questions or comments, please contact the undersigned at your convenience.

Respectfully Submitted,

Ecoscape Environmental Consultants Ltd.

Written by:



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APPENDIX A: General Terms and Conditions





General Conditions

This report applies and is subject to these “General Conditions”.

Use of Report

This report concerns a specific site and a specific scope of work and is therefore not applicable to any other sites or any other developments not referred to in the report. Any deviation from the specific site or scope of work would require a supplementary investigation and assessment.

Conclusions and recommendations contained in this report are solely intended for the use of Ecoscape’s client. Ecoscape bears no responsibility for the accuracy of information, the analysis of data or recommendations contained or referenced in this report when the report is utilized by or relied upon by any party other than Ecoscape’s client unless otherwise authorized in writing by Ecoscape. Any unauthorized application of this report is at the discretion and sole risk of its user.

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Limitations of Report

This report was derived solely from the conditions that were present on site during Ecoscape’s investigation. The client, and any other parties making use of this report with the express written consent of Ecoscape and the client, are aware that conditions affecting the environmental condition of the site can vary both temporally and spatially, and that the conclusions and recommendations included in this report are temporally sensitive.

The client, and any other parties making use of this report with the express written consent of Ecoscape and the client, are also aware that conclusions and recommendations included within this report emanate from limited observations and information, and that both on-site and off-site conditions may vary, which in turn could affect the conclusions and recommendations that were made.

The client is aware that Ecoscape is not qualified to, nor is it making any recommendations in terms of purchase, sale, investment, or development of the subject property, as such decisions are the sole responsibility of the client.

Information Provided to Ecoscape by Others

During the extent of the preparation and work carried out in this report, Ecoscape may have relied upon information provided by parties other than the client. While Ecoscape strives to validate the accuracy of such information when instructed to do so by the client, Ecoscape accepts no responsibility for the validity of such information which may affect the report.

Limitation of Liability

The client acknowledges that property containing hazardous wastes and contaminants poses a high risk of claims brought by third parties stemming from the presence of those materials. Accounting for these risks, and in consideration of Ecoscape providing the requested services, the client agrees that Ecoscape’s liability to the client, with respect to any issues relating to hazardous wastes or contaminants located on the subject property, shall be limited to the following:

With respect to any claims brought against Ecoscape by the client arising out of the provision or failure to provide services hereunder shall be limited to the amount of fees paid by the client to Ecoscape under this Agreement, whether the action is based on breach of contract or tort;

With respect to claims brought by third parties arising out of the presence of contaminants or hazardous wastes on the subject property, the client agrees to indemnify, defend and hold harmless Ecoscape from and against any and all claim or claims, action or actions, demands, damages, penalties, fines, losses, costs and expenses of every nature and kind whatsoever, including solicitor-client costs, arising or alleged to arise either in whole or part out of services provided by Ecoscape, whether the claim be brought against Ecoscape for breach of contract or tort.

Disclosure of Information by Client

The client agrees to fully cooperate with Ecoscape with respect to the provision of all available information on the past, current, or proposed conditions on the site, including historical information respecting the use of the site. The client acknowledges that in order for Ecoscape to properly provide the service, Ecoscape is relying on full disclosure and accuracy of any such information. Ecoscape does not accept any responsibility for conclusions drawn from erroneous, invalid, or inaccurate data provided to us by another party and used in the preparation of this report.



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Standard of Care

Services performed by Ecoscape for this report have been completed in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgement has been applied in developing the conclusions and/or recommendations made in this report. No warranty or guarantee, express or implied, is made concerning the results, comments, recommendations, or any other portion of this report.

Notification of Authorities

The client acknowledges that in certain instances the discovery of hazardous materials, contaminants or conditions and materials may require that regulatory agencies and other parties be informed and the client agrees that notification to such parties or persons as required may be done by Ecoscape in its reasonably exercised discretion. Further, Ecoscape reserves the right to notify Provincial agencies when rare or endangered flora or fauna are observed, whether the species classifications are identified as such at the local, Provincial, or Federal levels of government.

Ownership of Instruments of Professional Service

The client acknowledges that all reports, plans, and data generated by Ecoscape during the performance of the work and other documents prepared by Ecoscape are considered its professional work product and shall remain the copyright property of Ecoscape.

Alternate Report Format

Where Ecoscape submits both an electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed Ecoscape's instruments of professional service), the client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding. The hard copy versions submitted by Ecoscape shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancies, the hard copy versions shall govern over the electronic versions. Furthermore, the client agrees and waives all future right to dispute that the original hard copy signed version archived by Ecoscape shall be deemed to be the overall original for the Project.

The client agrees that both electronic file and hard copy versions of Ecoscape's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party other than Ecoscape. The client warrants that Ecoscape's instruments of professional service will be used only and exactly as submitted by Ecoscape.

The client recognizes and agrees that electronic files submitted by Ecoscape have been prepared and submitted using specific software and hardware systems. Ecoscape makes no representation about the compatibility of these files with the client's current or future software and hardware systems.



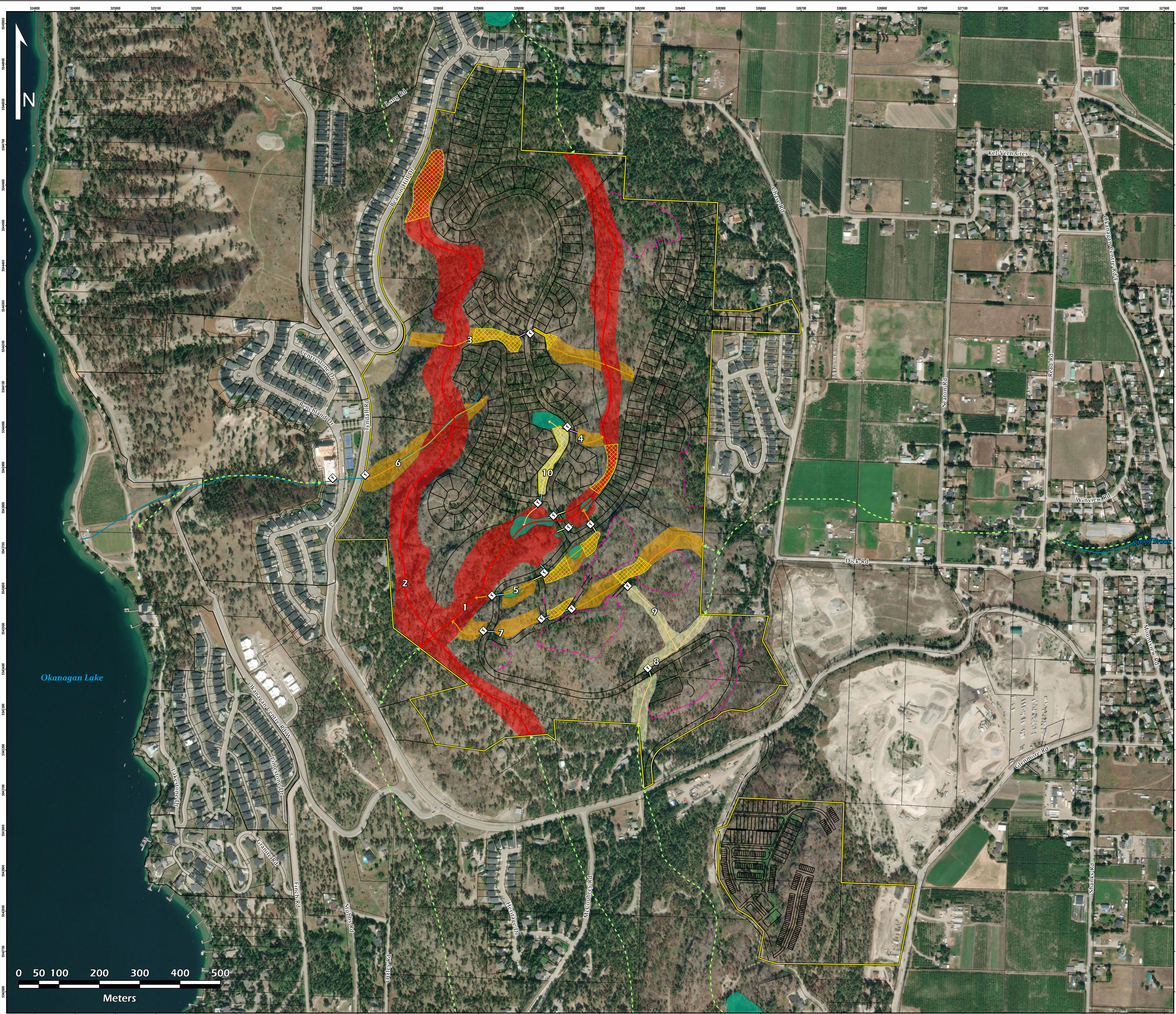
APPENDIX B: Figures

FIGURE 1

Wildlife Corridors and Crossings

Project: Lakestone Wildlife Corridor Plan
Location: District of Lake Country
Project No.: 25-5358
Prepared for: Macdonald Communities Ltd.
Prepared by: Ecoscape Environmental Consultants Ltd.
 Shane Pedersen, GIS Technologist
Coordinate System: NAD83-UTM Zone 11
Imagery: ESRI World Imagery
Map Date: January 15, 2026

- LEGEND**
- Wildlife Crossing Signage
 - Streams and Rivers
 - Lakestone Lots, Roads, and Phases Linework
 - Lakestone Future Subdivisions
 - Cadastre
 - Subject Property
 - Wetland and Riparian Communities
 - Connectivity Pinch Points and Barriers
 - Wildlife Crossings**
 - Arch Culvert
 - Box Culvert
 - Ecopassage Tunnel
 - Wildlife Corridors**
 - Primary
 - Secondary
 - Tertiary
 - Exterior
 - Wildlife Corridors**
 - Primary Corridors
 - Secondary Corridors
 - Tertiary Corridors



DISCLAIMER
 The data displayed is for conceptual purposes only and should not be interpreted as a legal survey or for legal purposes. If discrepancies are found between the data portrayed in this report and that of a legal survey, the legal survey will supersede any data presented herein.

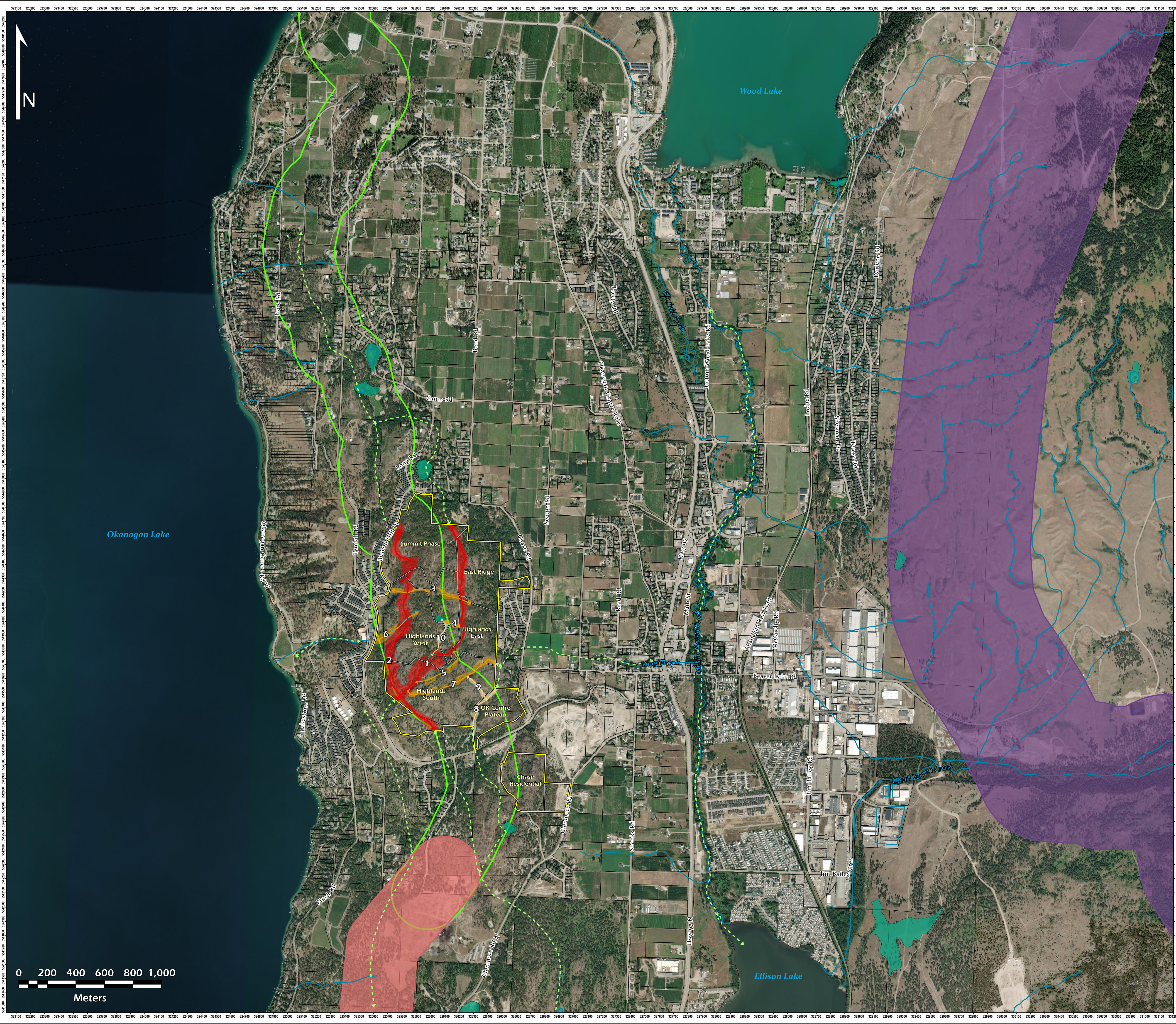


FIGURE 2

Landscape Connectivity Context

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- LEGEND**
- Streams and Rivers
 - Wildlife Corridors**
 - Primary
 - Secondary
 - Tertiary
 - Exterior
 - Primary Corridors
 - Secondary Corridors
 - Tertiary Corridors
 - Wetland and Riparian Communities
 - Knox Mountain Ridge Ecosystem Connectivity Corridor
 - Okanagan Mountain - k'nmalka Wildlife Corridor
 - Knox Ridge to Allan Brooks Connectivity Pathway
 - Cadastre
 - Phasing Plan
 - Subject Property



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