APPLICATION FOR REDESIGNATION

SUPPLEMENTAL INFORMATION REQUESTED BY COUNCIL (2021-11-09)

NW ¼ SEC 14, TWP 25 RGE 3 N. 5M

OWNERS:

Jack Pyc, BSc. P.Eng, ALS & Cynthia Pyc, MSc. P.Biol

January 14, 2022

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Property owner information

Jack and Cynthia Pyc are the owners of Lot 17, Block 1, Plan 131 2829, encompassing legal subdivisions (LSDs) 12, 13-14-25-3 W5M and 9, 16-15-25-3 W5M. Both Jack and Cynthia are Calgarians who currently reside in Victoria, BC. Cynthia is an alumnus of the University of Calgary with a Bachelor of Science degree in Zoology and a Master of Science Degree in Resource Management, with a thesis topic focused on wildlife (specifically moose) management. She has been a practicing biologist since 1993, registered with the Alberta Society of Professional Biologists until moving to BC in 2018. Jack is an alumnus of the University of Calgary with a Bachelor of Science in Geomatics Engineering. Jack is also a registered Professional Engineer with APEGGA. He has held the designation of Alberta Land Surveyor (ALS) since 2006. Some of the materials in this document were prepared by us (Jack and Cynthia), relying on our technical backgrounds and expertise, assisted by colleagues and consultants in specialty fields (e.g., agrology, range assessment and reclamation, civil and geotechnical engineering).

Redesignation request

We (Jack and Cynthia Pyc) have requested a redesignation of our property to allow for future subdivision, pending the submission and review of information required for subdivision application. At this time, only redesignation is requested. The redesignation submission was reviewed by Mayor and Council on 9 November 2021, where it was referred back to Administration to work with us to provide additional detail on the following matters:

1. Feasibility (should consider slope stability) of building two residences on the subject lands,
2. Provide an updated map of access to the subject lands, and
3. The environmental consequences as a result of future subdivision.

Subdivision Feasibility

As noted in the North Springbank Area Structure Plan (the 'Plan')(Rockyview County Spring 2021 Draft), the creation of residential acreage lots, the majority of which are between two and four acres in size, has been ongoing since the 1990s, with several areas in the community consisting of planned two acre subdivisions. The existing four area parcel is currently designated as residential within the Plan (Map 04 Existing Land Use) where many two acre parcels already exist, or are currently in the application process.[1] The Plan indicates that the acreage falls within lands identified as Country Residential Infill (Figure 1 - Map 05 Land Use Strategy) suitable for residential development, with a 1.98 acre minimum parcel size.

[1] As per Springbank Area Map Maps | Rocky View County *accessed 2021-11-25*

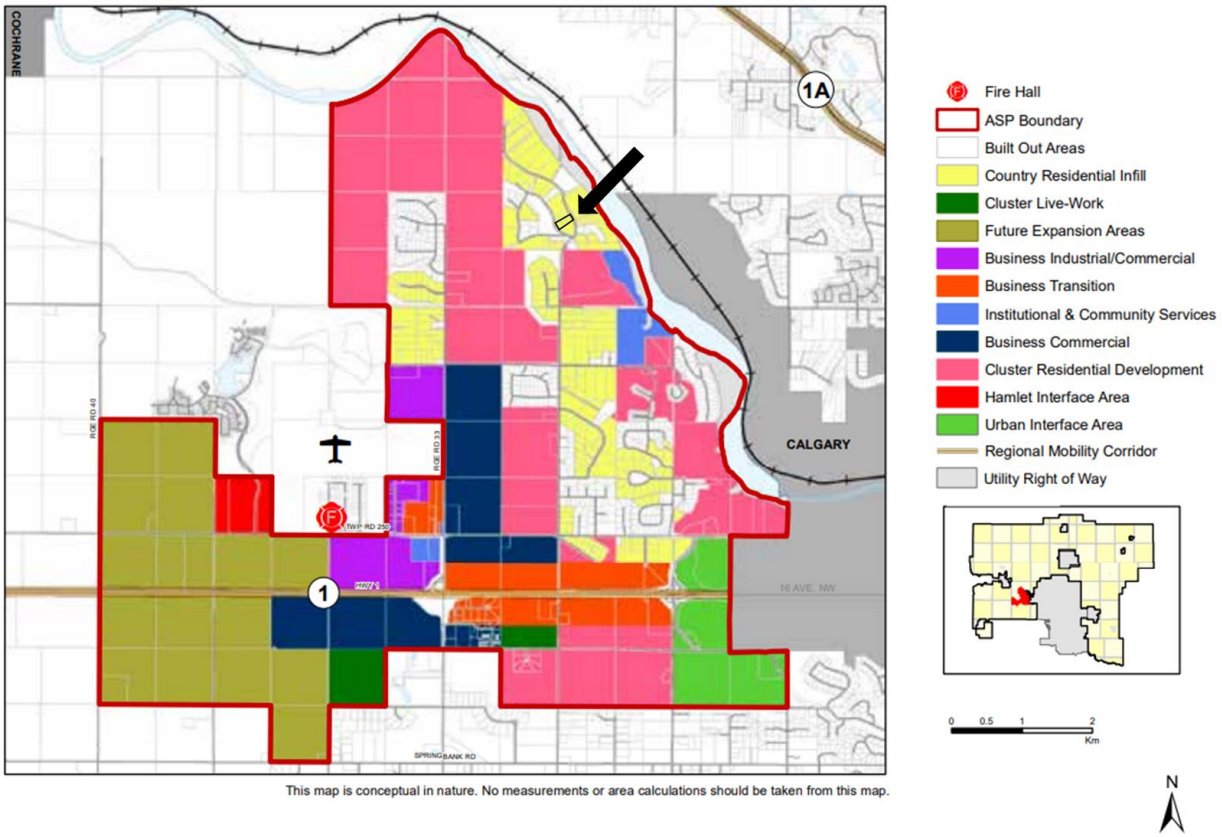

Figure 1. Discussed lot is denoted with black polygon with highlighting arrow, designated as Country Residential Infill adjacent to Cluster Residential Development.

The initial redesignation request included a potential subdivision location that split the acreage approximately southwest-northeast, resulting in two lots with existing access to the southwest lot from Springbank Heights Drive and the other assumed future access to the northeast lot from Springbank Heights Way. This draft subdivision concept was suggested to negate the use of a panhandle road to access a lot adjacent to Springbank Heights Way.

Based on the concerns expressed by the adjacent property owner in a letter dated 16 June 2021, an alternative subdivision concept was submitted to Rockyview County on 3 September 2021. This draft concept II was presented as a longitudinal subdivision that would result in two long lots split approximately south-north, with access to both lots from Springbank Heights Drive. Again, no panhandle roads are associated with this concept.

During our redesignation discussions with the County, it was understood that subdivision concepts were more applicable to that application stage, and no further work was done to describe these concepts for redesignation. However, as the Mayor and Council have requested additional information on slope stability, we have retained Strom Engineering to provide responses to this request. Please see Appendix A for additional materials related to the Strom Engineering report submitted with the redesignation request.

Proposed Future Subdivision and Access

Mayor and Council expressed concerns during the 9 November 2021 meeting that a subdivision of the property would not have sufficient room to accommodate two residences. A concept plan for a subdivision is provided in Figure 2, where each lot is 2.05 acres, which exceeds the required minimum Infill Country Residential Area lot size of 1.98 acres. Excluding the slope portion of each lot and including County setback distances from property lines and frontage, the developable area of each lot is 1.43 acres (Lot A) and 1.65 acres (Lot B), exceeding the minimum 1 acre of developable area required under the County Servicing Standards. In this division concept, the access to both lots is from Springbank Heights Drive. The proposed access to Lot A is on a ~6.4% grade, well within the maximum access grade allowed by Rockyview County. Access to Lot B is existing, while access to Lot A would be developed for a future subdivided lot. This volume of developable area is more than sufficient to accommodate a residence and associated septic field in each lot with significant setback available for any future septic fields from any slopes exceeding 15% in the area.

An additional line of query in the Council meeting focused on availability of water for two residences. A Level 4 Private Sewage Treatment Study (PSTS) and Phase 1 Groundwater Supply Evaluation were submitted to Rockyview County as part of our redesignation request documentation. If we are approved to move forward with a subdivision application, we will provide groundwater supply materials for two lots as required. Additional information on water testing is included in Appendix A documents.

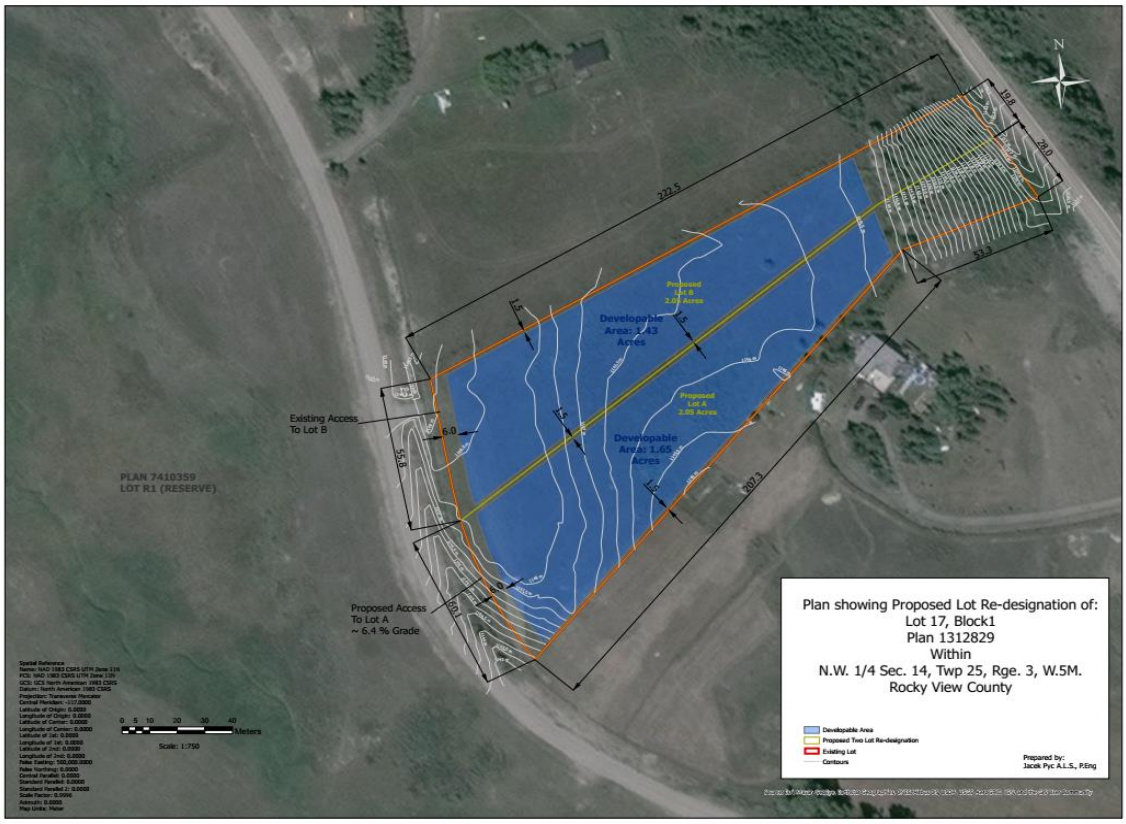

Figure 2. Subdivision concept II is shown in map with slope grades and by-law required setback distances from property lines.

Environmental Consequences of Future Subdivision

SITE DESCRIPTION

The lot requested for redesignation is located within Foothills Parkland Natural Subregion of the Parkland Natural Region of Alberta, west of Calgary, Alberta in the Springbank area. The property is bounded by Springbank Heights Drive to the southwest and Springbank Heights Way to the northeast. The Property consists mainly of vegetation communities consistent with those found within the Foothills Parkland Natural Subregion including remnant foothills fescue native prairie. Non-native encroachment species are present throughout the property (many of which are potentially seeded from the nearby Natural Area lands (see Figure 3), which has modified most of the plant communities. Native plant communities have also likely been altered by horse grazing, a past land use evidenced on the lot. The steeply graded land adjacent to Springbank Heights Way is comprised largely of deciduous aspen and poplar trees, 10 coniferous trees, shrub species, and non-native species adjacent to the roadway.

In 2017, a section of the lot experienced significant compaction and disturbance when ATCO upgraded a natural gas pipeline right-of-way adjacent to Springbank Heights Drive. Prior to the pipeline construction, ATCO obtained *Historical Resources Act* (HRA) clearance from Alberta Culture. The right-of-way was several meters in width along the full length of the Springbank Heights Drive fence line. Additionally, multiple vehicle tracks were dispersed on this portion of the lot. The majority of the area impacted by the construction activities included grassland community species typically found in a foothills fescue dominated upland native prairie. A small portion of the right-of-way towards the southeastern side of the property traverses a short moderately steep slope that was dominated by smooth brome grass, a non-native encroachment and exotic species. It is assumed that smooth brome grass is invading the property from the adjacent roadway bar ditches and the Natural Area located on parallel-running land along the southwest side of Springbank Heights Drive, as smooth brome is observed as a dominant species in those areas. Smooth brome grass is also a threat to other plant communities as cones of this species are observed throughout the property.

The property owners contracted an environmental firm to reclaim the damages caused by the pipeline construction. In October 2017, the entire right-of-way was re-seeded with native grass species embedded in biodegradable coconut matting (a common seeding technique that keeps the seeds in place and prevents erosion). Monitoring in 2018 confirmed that reclamation was successful, and that the re-seeding had prevented further encroachment of exotic species into the disturbed area.

Figure 3. Photos showing construction impact and reclamation undertaken by current landowners.

ENVIRONMENTAL CONSEQUENCES OF FUTURE SUBDIVISION

Mayor and Council requested information addressing a wildlife corridor on the property. The request for information was not detailed during the recorded version of the meeting, and no subsequent guidance was provided on how to specifically address this concern. However, the North Springbank Area Structure Plan (2021)[2] and associated Environmental Constraints Review (2019)[3] provide some information on this topic. A large swath of land on either side of the length of the Bow river is identified as Key Wildlife and Biodiversity Zones in the North Springbank ASP Draft document (Map 06: Environmental Areas). However, this zone does overlap residential areas, including those adjacent to the Springbank Links golf course, in a highly fragmented ecosystem. The maps found within the Environmental Constraints Review do not indicate the presence of environmentally significant areas overlapping the property (Figure 4). The nearest environmentally sensitive area is the Riparian Policy Area (which, it is worth noting, badly needs a noxious weeds eradication program as it is dominated by invasive species that are seeding nearby prairie habitat, including the property in question), is located on the other side of Springbank Heights Drive.

Additionally, a community member letter submitted to Rockyview County on December 10, 2012, incorrectly describing a portion of the lot as a riparian zone. While riparian zones are commonly used as wildlife corridors, there are no riparian zones located on the property. Riparian zones are only those lands found adjacent to rivers or streams. The nearest Riparian Policy Area, associated with an ephemeral stream is as mentioned above, located opposite the property (see Figure 4).

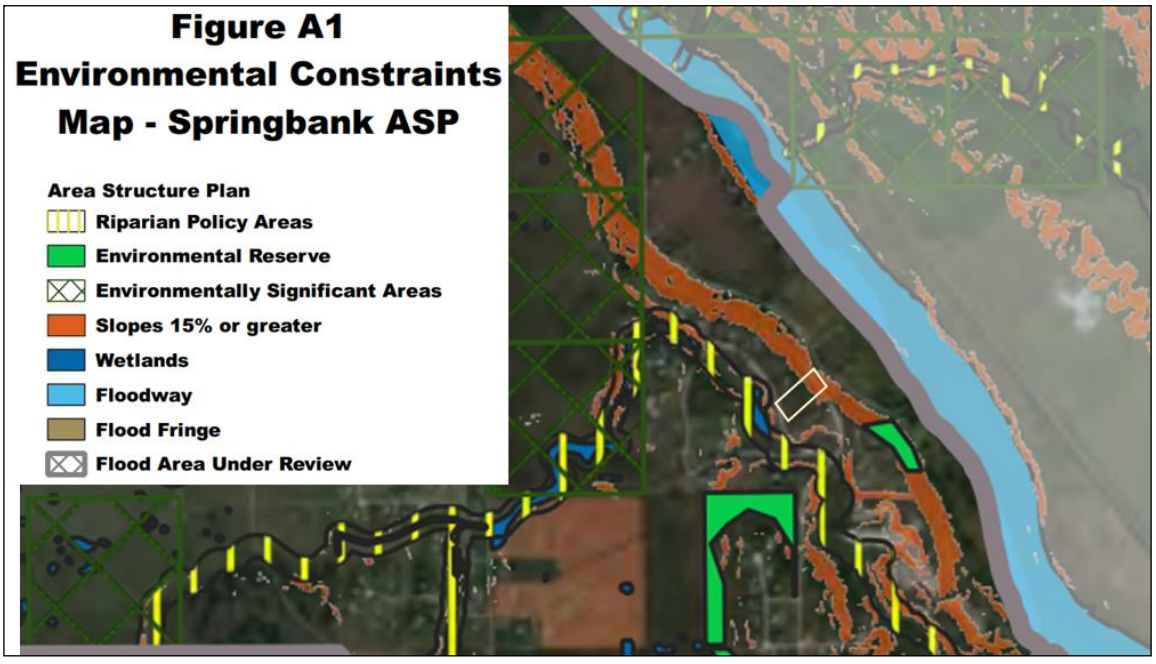

Figure 4. Map showing location of lot (indicated by a white polygon) superimposed on the Environmental Constraints Review map from the Springbank Area Structure Plan (ASP) Review Project. The orange highlights in this map denote slopes 15% or greater.

[2] North-Springbank-ASP-DRAFT.pdf (rockyview.ca) *accessed January 10, 2022*
[3] Springbank-ASP-Environmental-Constraints-Review.pdf (rockyview.ca) *accessed January 10, 2022*

A total of 13 sensitive species were listed in the ASP. Many of the species on the list are unlikely to be present on the property since they require specific habitats (e.g., great blue herons utilize wetland habitats, while the only species that 'May be at Risk' on the list, the Western wood-pewee, requires evergreen and coniferous forests not present on the property). Mammals on the list of sensitive species that may be present include badger (although no diggings have been observed on the property since its purchase), and bobcat. Ungulate beddings are regularly observed on the property when we, and other local family members visit on an annual basis.

Wildlife habitat modelling for ungulates (moose and deer) and short-eared owl was conducted for the area. Section 3.2.2.1 of the Environmental Constraints Review document indicates that treed slope, a portion of which exists on the Springbank Heights Way side of the lot, may provide connected cover for moose. However, connectivity is lower on the property where Springbank Heights Way passes through this habitat (Figures 5 and 6). The combination of significant existing habitat fragmentation and the fact that this area is not ideal habitat for moose results in a very high habitat resistance score for the property (75 out of 100) (Figure 7). The modeling data clearly indicate that the potential exists for moose to use this narrow strip of trees for movement, but that they are unlikely to do so, given all the other constraints to movement in the area, and lack of preferred habitat for this species.

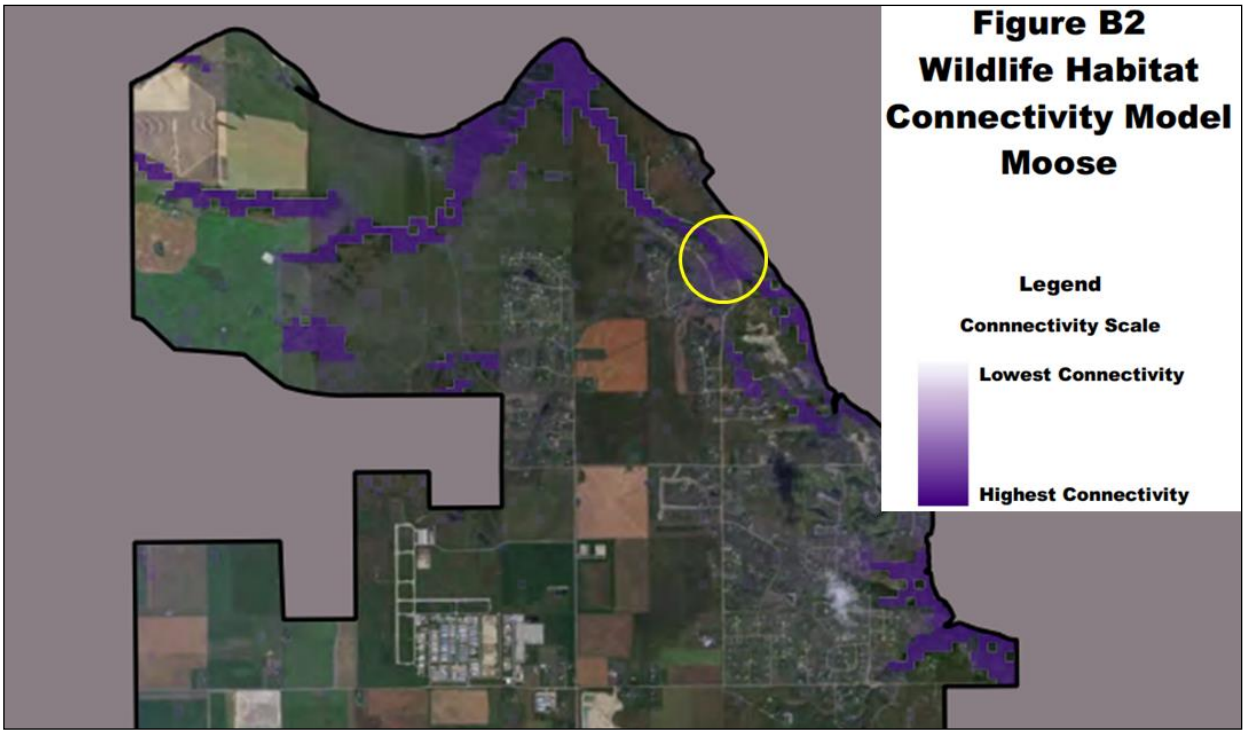

Figure 5. Wildlife habitat connectivity model for moose showing a lower connectivity score on the property, likely due to the passage of Springbank Heights Way through the treed habitat (see Figure 6). Property is located within the yellow circle.

Figure 6. Aerial image of the property under discussion (denoted by yellow polygon) and surrounding area. The property lies within a highly fragmented ecosystem, bounded on either side by roads, including Springbank Heights Way, which passes through the treed area, likely leading to the lower connectivity score shown in Figure 5.

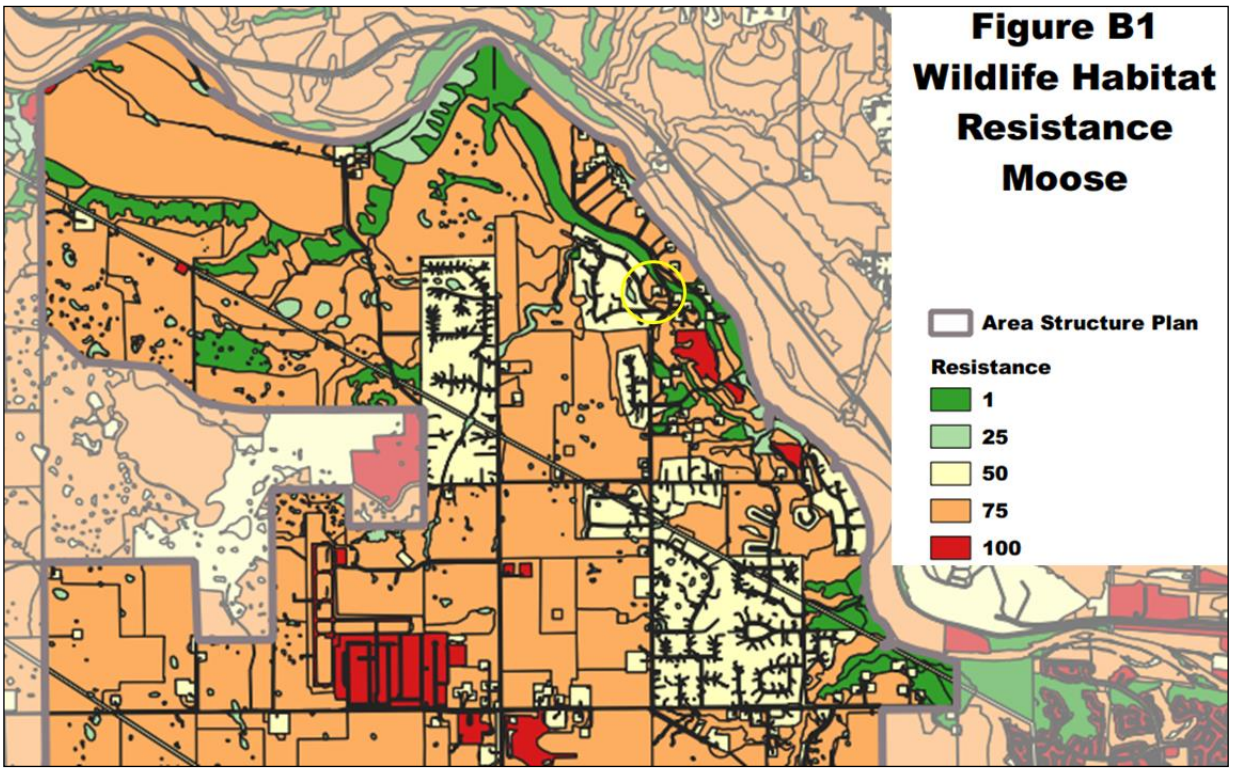

Figure 7. Wildlife habitat resistance maps with score of 75 out of 100 on the property.

Similar analyses were conducted for deer and short-eared owl. Connectivity ratings for deer and short-eared owls were both very low. Deer are known to occupy fragmented habitats, including urban settings, and therefore resistance to habitat use scoring is low, meaning they are likely to use the area. The development of two homes on this property, should subdivision occur, will not prevent movement of deer through the lots. Resistance to habitat use scoring for short-eared owl varies in this area, with lower resistance scores on the property and adjacent land to the south-east. Short-eared owls mainly forage in open prairie habitats. The area surrounding the lot has higher resistance scores. Given the likely footprint of two homes on separate lots relative to the large developable area, the land may continue to provide foraging for both owl and deer assessed in the ASP documents.

In summary, the property, including the small, treed area on the grade does not appear to be a wildlife corridor for any sensitive species. No sensitive areas are identified on the property and previous HRA clearance applications have not identified culturally sensitive sites. Additionally, the potential subdivision plan previously submitted to the Country of Rockyview and provided in this document (Figure 2), does not contemplate access on the side of the lot with the steeper grades or tree cover. Should this subdivision concept be chosen at some future point, concerns associated with the graded portion of the lot are moot. Development of two lots for country residential is unlikely to prevent transit through, or use of, the property by common, and/or sensitive species, assuming that future development abides by subdivision and development guidelines provided by the County.

Appendix A Supplemental Materials Associated with Feasibility Questions from Rockyview County