

# APPLICATION BY A LANDOWNER

## Schedule A

### PROPOSAL

The owners wish to have the southern 30.35 hectares of their 53.72 hectares of land excluded from the ALR so they can make application to the Cariboo Regional District for rezoning of the property to permit a subdivision of 28 one hectare single family residential lots. The 30.35 hectares are on an uncultivated sloping hillside which has been logged and has deciduous and some evergreen tree cover of aspen, spruce, cedar and dead pine, and which the owners find unsuitable for any type of farming. The proposed exclusion parcel slopes downward from the south boundary to the fence line and then northward across 23 hectares of flatland hayfield extending to the north boundary. There is a fence running the length of the bottom of the slope as shown on the accompanying sketch plans. The hayfield land to remain in the ALR will include the existing buildings and structures on the property so that it may remain as a small farm. The land proposed for exclusion and subdivision development is fenced along its north, east, south and west boundaries and there is natural tree and shrub cover along much of the fence lines. Where there are voids and open spaces there will be tree cover planted as required to minimize visual impact on the adjoining and surrounding properties. Roads in the subdivision will be paved, sewerage will be by septic fields and water by drilled wells. There will be no demand for urban type utility services. The building lots will have a registered building scheme to regulate the use of the lots and the construction of homes in a manner harmonious with the overall development and the rural character of the surrounding area.

Mr. McDonald purchased the property in November of 2016 and transferred it to joint tenancy with his spouse in 2018. The owners are longtime farmers and wish to continue farming in the south Cariboo. They have 6 cows, 6 calves and 2 steers. The hayfield is able to yield one annual crop of 90 to 100 tons of hay which is totally consumed by the cows and steers and 4 horses over the winter. The rest of the year the cows are on a private rental site. They also have 30 sheep which they are selling off because the sheep are unable to survive on the existing forage and they have to purchase hay for them.

The McDonalds are unable to make a living from their property as farmers and both have full time non farming jobs to cover their expenses. They wish to develop and sell the subdivision lots to enable them to purchase a larger farm and build a herd that can be supported from their own hay production. Both are middle age and wish to be full time farmers.

## 2.0 LOCATION & LAND USE

### 2.1 Subject Property

The Subject Property is located approximately 10 km east of 100 Mile House, BC, at the west end of Horse Lake. The total parcel (+/- 132 ac/53.4 ha) is within the ALR (Appendix A; Figure 4) and includes a low lying, gently sloping field on the south side of Bridge Creek (+/- 57 ac/23 ha) as well as an upland area characterized by moderate to very strong slopes and complex topography with a second growth mixed forest including Douglas fir, lodgepole pine, spruce and poplar (+/- 75 ac/30.4 ha). Most of the lodgepole pine has been killed in recent years by the mountain pine beetle epidemic. The dead pines have been selectively logged over the last 2 years. Evidence of further historical selective logging (eg. wide trails, two old log deck sites and numerous stumps) was observed throughout the Subject Property.

The Landowners purchased the Subject Property in 2016 with the intention of raising sheep and cattle for local consumption. They planned to selectively clear the upland forest for pasture, and grow hay on the lowland for winter feed. In the last several years, they have pastured as many as 75 sheep, 6 cow/calf pairs and several horses on 4-6 ha that have been recently logged and fenced. However, the Landowners claim that this parcel has not provided sufficient forage for the sheep, cattle and horses through the spring, summer and fall months over the past several years. They have broadcast seeded approximately 4-6 ha of logged uplands with Cariboo pasture mix. They report that the germination rates were low and they didn't expect to have sufficient forage for the sheep in the 2020 grazing season. As a result they sold their sheep to a large-scale sheep ranch near Fort Nelson in May, 2020. They have not cultivated or fertilized any of the forested or logged pasture areas.

The field which occupies the gently sloping lowland was in hay production (with irrigation) when the Landowners purchased the Subject Property in 2016. Since then, they have fertilized this field, and completed legume applications to boost the production. However, in spite of these inputs, they claim to have had diminishing yields since they purchased the property in the fall of 2016. They estimate their 2018 yield was only 1/3 as much as what they were able to cut in 2017. This field is not part of the subdivision and exclusion application. They are proposing to leave this field with the house and outbuildings as a separate property that will remain in the ALR.

The Landowners have considered a number of options for making the best use of their property. They consulted a specialist regarding the possibility of planting conifers in the uplands and developing a Christmas tree operation. The specialist reported that they would need irrigation, which would not be a viable option considering the topography. In addition, they were told that mechanized equipment would be essential for such an operation, and the topography is not suitable for such equipment.

### 2.2 Surrounding Land Use

Land use in the surrounding area includes ranching, hay production, logging and tourism as well as recreational and residential developments. While all of the parcels adjacent to the Subject Property are in the ALR, there are a number of properties in the immediate area that have been subdivided and are not in the ALR (Appendix A; Figure 4). Only one small parcel in the upland area in the vicinity of the Subject Property has been cleared for pasture. Otherwise, none of the other upland properties appear to have been cleared for pasture or other agricultural purposes (Appendix A; Figure 5). Most of the adjacent properties on the south and west sides of the Subject Property appear to have been recently logged, most likely in response to the recent pine beetle epidemic. The property immediately to the east is a residential lot, approximately 1 ha in size.

Land use at the west end of Horse Lake in the vicinity of the Subject Property is characterized by a distinctive pattern of agricultural production on the low-lying, level to gently sloping valley bottom with residential properties clustered on the uplands and along the steeply sloping shores along the lake. The agricultural activity

in the vicinity of the Subject Property is concentrated along the creek floodplain where irrigation water is available and there are no topographic limitations.

### 3.0 SOILS & LANDSCAPE

Baseline soils information was obtained from the *Soils of the Lac La Hache-Clinton Area, British Columbia, Report No. 25, British Columbia Soil Survey*, along with 1:125,000 scale mapping (KWG Valentine & A Schori, 1980). Information contained in this report indicates that soils of the Exeter Association – Map Unit 1, are found on the Subject Property (Appendix A; Figure 6). This Map Unit is composed of forested soils on moderately alkaline lacustrine silts. Deep, well-drained, stone-free soils (most of which have accumulations of clay in the subsoils) occur on gently to moderately sloping topography in the upper parts of the small lacustrine basins on the upper part of the plateau (KWG Valentine & A Schori, 1980). Observations made during the field investigation confirmed the presence of soils with characteristics similar to those described for the Exeter Association on the rolling and hummocky uplands of the Subject Property. In addition, there were 4-5 steep-sided draws located throughout the Subject Property that opened on to the low-lying hayfield. Field observations indicated that a different soil type occurred in these draws in association with the higher groundwater table and periodic surface water flow. At the time of the field investigation, there was little or no surface flow in the draws. However, several small ponds and wet areas were noted in the west end of the Subject Property below the draws close to the hayfield. In addition, two culverts with low volume stream flow were noted along the logging trail in the western portion of the parcel.

The elevation of Horse Lake is +/- 990m ASL. The Subject Property lies between approximately 1000 and 1040 m ASL. The topography is characterized by gentle to strong slopes on rolling to hummocky terrain, with occasional very strong slopes. Such topography limits the operation and effectiveness of farm machinery due to the high variability in slope angle and complexity combined with the fragmented nature of the landscape.

### 4.0 LAND CAPABILITY FOR AGRICULTURE

Agricultural capability ratings are based on the combined conditions of soils, topography and climate for any given location. General reference information for agricultural capability was provided by *Land Capability Classification for Agriculture in British Columbia, Manual 1* (BC Ministry of Agriculture and Food and Ministry of Environment, 1983).

Site-specific agricultural capability was taken from the Canada Land Inventory (CLI) mapping at 1:50,000 scale, which rated the Subject Property as Class 4C (Appendix A; Figure 7). Class 4 lands have limitations that require special management practices or severely restrict the range of crops or both. The "C" subclass refers to any of the climate limitations (eg. subclasses F – frost hazard, G – insufficient heat units, A – soil moisture deficits in the growing season) which are in force at the class limitation level.

Conditions noted during the field investigation (conducted at approximately 1:5,000 scale) provided more site-specific detail than the CLI mapping (at 1:50,000 scale), and indicated that the agricultural capability rating for the Subject Property is Class 4CT. The "T" subclass applies to soils for which topography limits agricultural use by affecting the use of farm machinery, decreasing the uniformity of growth and maturity of crops, and increasing the potential for water erosion. The class designations are based on percent slope (steepness) and the pattern and/or complexity of slopes (BC Ministry of Environment, 1985). The hummocky terrain which characterizes the Subject Property has both strong simple slopes (16 – 20%) and moderate complex slopes (11 – 15%) as defined in MOE Manual 1 for Class 4T lands.

In addition, 4-5 steep-sided draws were noted on the Subject Property during the field investigation. Although, these small units are too small to break out for the purposes of this report, they do have an impact on the agricultural capability of the Subject Property. Therefore, the site has been given a complex agricultural capability rating of 4CT-90%/5TC-10%. Climatic limitations and topographic limitations are not considered to be

improvable. Therefore, Class 4CT-90%/5TC-10% is both the improved and unimproved overall agricultural capability rating for the Subject Property.

## **5.0 AGRICULTURAL SUITABILITY**

There is a long-established history of agriculture, primarily ranching, in the 100 Mile House region. However, there is a visible lack of agricultural development in the uplands that characterize the area around the Subject Property. Agricultural activities are confined to low-lying lands beside lakes, creeks and other watercourses. Farmers and ranchers who are familiar with local soil and climate conditions typically clear and develop the land with the best forage capability in their area. This has not happened in the vicinity of the Subject Property, probably because of the climate limitations combined with a lack of irrigation water and in some cases, steep, hummocky topography.

There is a relatively high degree of residential and recreational land use in the Horse Lake area. This is partly due to its close proximity to 100 Mile House, and may also be related to the limited capability for agriculture in the area.

Under the current conditions, and for the foreseeable future, the most suitable agricultural use of the Subject Property would be to develop pastures for livestock. The Landowners have logged a small area (+/- 4-6 ha) and have attempted to develop this area as rough pasture for their sheep, horses and cattle, with little success. A limited number of livestock could possibly be pastured in this area, which accounts for only +/- 13 – 20% of the total Subject Property. Hay grown on the existing hayfield (adjacent to the Subject Property) would be used for winter feed. However, if the weather patterns of the last several years continue, it would probably be necessary to purchase additional feed to supplement the hay through the winter. This would not be an economically viable way to run a livestock operation, especially considering the limited number of animals that could be pastured on such a small parcel. In addition, it would probably not be economically feasible to log, clear and stump the remaining area (+/- 24-26 ha) for improved pasture, as historically these upland areas have not been developed by local farmers. This lack of development suggests that the uplands have limited capability for pasture.

## **6.0 IMPACT ANALYSIS**

### **6.1 Potential Impact of Exclusion on Local and Regional Agricultural Productive Capacity**

The Subject Property has only minimal development potential for forage. No negative impacts to local and regional productive capacity are anticipated if the Subject Property is excluded from the ALR.

### **6.2 Potential Impact of Exclusion on Surrounding Agricultural Operations**

The Subject Property is not currently connected to any surrounding agricultural operations. Therefore, if the Subject Property were to be excluded from the ALR, there would be no anticipated changes in access or other impacts to the surrounding agricultural operations.

### **6.3 Precedent of Exclusion for Triggering Future Applications**

The Subject Property has marginal agricultural capability and is located in an area where agricultural activities are confined to those sites with higher agricultural capability. The precedent for subdivision and residential and recreational development on the marginal upland properties in the area has already been set. Therefore, the exclusion of the Subject Property would only potentially affect other properties in the area that are similarly encumbered by marginal capability. It is not anticipated to have any impacts on applications by properties with higher agricultural capability ratings.

## 7.0 SUMMARY

- ❖ The proposed plan includes an application to have 30.4 ha of forested uplands separated from the 53.4 ha parcel, then removed from the ALR and subdivided for residential development. The remaining 23 ha include an irrigated hayfield, and will be left in the ALR.
- ❖ Climate is the primary limitation to agricultural activities on the Subject Property due to the frost regime combined with a lack of heat units. Soil moisture deficits during the growing season present further limitations. None of these limitations are considered to be improvable.
- ❖ Topography also presents limitations to the agricultural capability of the Subject Property. Moderate to strong slopes on complex terrain that is fragmented by steep-sided draws limits the operation of farm machinery and decrease the uniformity of growth and maturity of crops while increasing the potential for water erosion. This limitation is not considered to be improvable.
- ❖ Land use at the west end of Horse Lake in the vicinity of the Subject Property is characterized by a distinctive pattern of agricultural production on the low-lying, level to gently sloping valley bottom with an obvious lack of agricultural development on the forested uplands. Residential properties in the area tend to be clustered on the uplands and along the steeply sloping shores along the lake. The lack of agricultural development in the uplands suggests that there is little or no potential for agricultural activities on these marginal sites.
- ❖ The Landowners have attempted to improve the agricultural productivity of both the low-lying hayfield and the selectively cleared uplands over the last several years. They claim to have had diminishing returns from both livestock and hay over this time, and have sold their sheep as the upland pastures have not produced sufficient forage to feed them through the grazing period. In addition, the hayfield has not produced enough hay to supplement the sheep during the fall and winter months.

## 6.0 REFERENCES

- BC Ministry of Agriculture and Food and Ministry of Environment, April 1983. *Land Capability for Agriculture in British Columbia. MOE Manual 1.* Surveys and Resource Mapping Branch and Soils Branch: Kelowna, British Columbia
- Soil Classification Working Group, 1998. *The Canadian System of Soil Classification.* Agric. and Agri-Food Can. Publ.1646 (Revised). 187 pp.
- Valentine, K.W.G., and A. Schori, 1980. *Soils of the Lac La Hache-Clinton Area, Report No. 25, British Columbia Soil Survey.* Research Branch, Agriculture Canada, Vancouver, B.C.