



BYLAW NO. 10.07

BEING A BY-LAW TO ADOPT AN AREA STRUCTURE PLAN

WHEREAS, the Municipal Government Act, Being Chapter M-26, R.S.A., 2000, and amendments thereto, authorize a Council to adopt an area structure plan for the purpose of providing a framework for subsequent subdivision and development of an area of land;

AND WHEREAS, a public hearing was held in respect to the proposed amendments to the area structure plan on the date written below;

NOW THEREFORE, the Council for Yellowhead County, in the Province of Alberta, duly assembled, hereby enacts as follows:

- 1) That the document entitled “Draft Whitetail Shores Area Structure Plan”, dated May 2007 attached hereto as Schedule “A” is hereby adopted as an Area Structure Plan.
- 3) This bylaw comes into force at the beginning of the day that it is passed in accordance with Section 189 of the Municipal Government Act, Being Chapter M-26, R.S.A., 2000.

READ a first time this 12 day of June, A.D., 2007.

PUBLIC HEARING held this 24 day of July, A.D., 2007.

READ a second time this 28 day of August, A.D., 2007.

READ a third time this 28 day of August, A.D., 2007.

SIGNED this 28 day of August, A.D., 2007.

Reeve, Jack Williams

Chief Administrative Officer, Jack Ramme

Whitetail Shores

(Pt. NE 31-55-15-W5M)



- Proposed Land Use Bylaw Amendment
- Proposed Subdivision
- Area Structure Plan/Supporting Documentation
- Percolation Rates and Groundwater Conditions (EXH Engineering Services Ltd.)
- Groundwater Potential Assessment (Waterline Resources Inc.)

Prepared for:

Gary Lalonde

Prepared/Compiled by:

G.T. Hofmann & Associates

Submitted to:

Yellowhead County

(May 2007)

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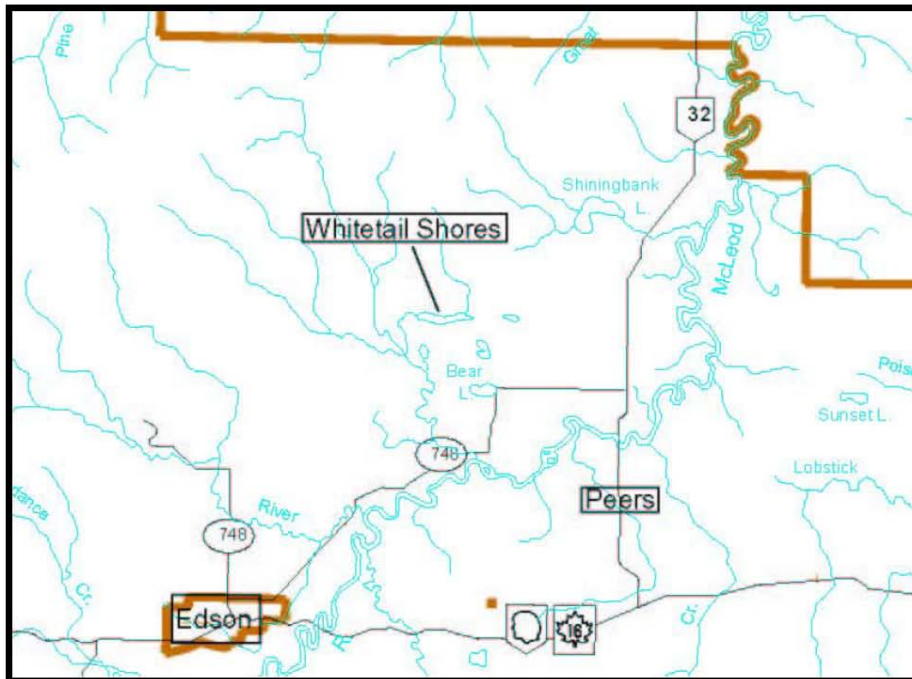
APPENDICES

- 1) Percolation Rates and Groundwater Conditions
Prepared by EXH Engineering Ltd.
{Note: Summary of Full Report, INCLUDING
UPDATED (MAY, 2007) NEAR-SURFACE
WATER TEST RESULTS, MAP SHOWING
LOCATION OF TEST HOLES AND
CONCLUSION RE: THE USE OF
TREATMENT MOUNDS}
- 2) Groundwater Potential Assessment
Prepared by Waterline Resources Inc.
{Note: Summary of Full Report}
- 3) Application Forms and Existing Certificate of Title
- 4) Sample FireSmart Restrictive Covenant

1) **INTRODUCTION**

The following is submitted in support of two applications. The first is an application to amend the Yellowhead County Land Use Bylaw No. 2.06 to redistrict 18.4 ha. ± of Lot 2, Block 1, Plan 062 0181 (Pt. of NE 31-55-15-W5M) from RL - Low Impact Recreational District to CR - Country Residential District. The remainder of Lot 2 as well as Lot 1, Block 1, Plan 062 0181 (4.24 ha. ±) are unaffected by this amendment application and will remain within the RL - District. The second is a corresponding application to create a 15-lot multi-parcel country residential subdivision to be known as "Whitetail Shores". Following are Figure 1 - Location Maps, Figure 2 - Proposed Land Use Bylaw Amendment and Figure 3 - Concept Plan/Proposed Subdivision.

FIGURE 1 - LOCATION MAPS



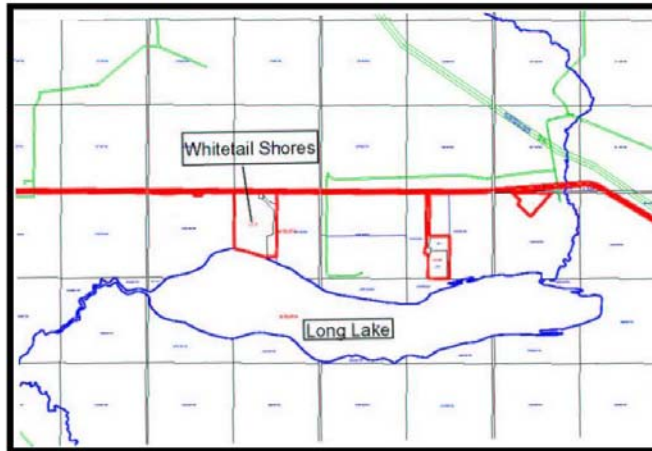
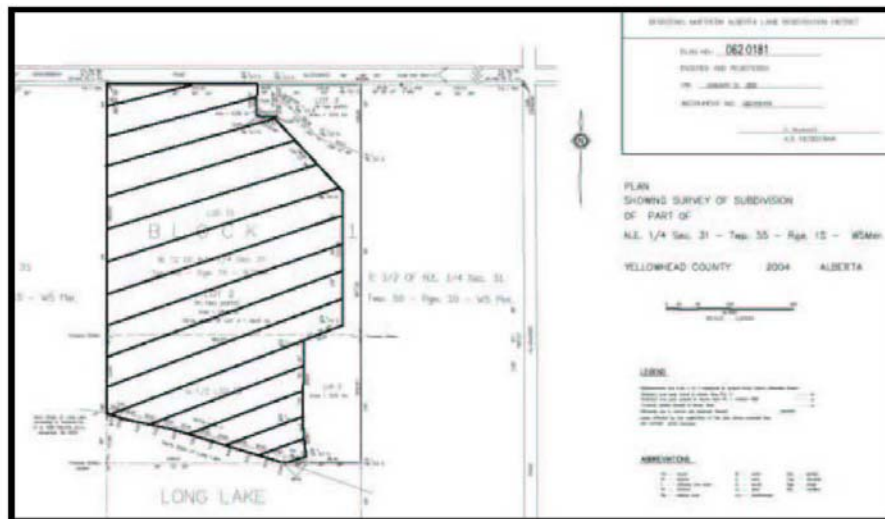
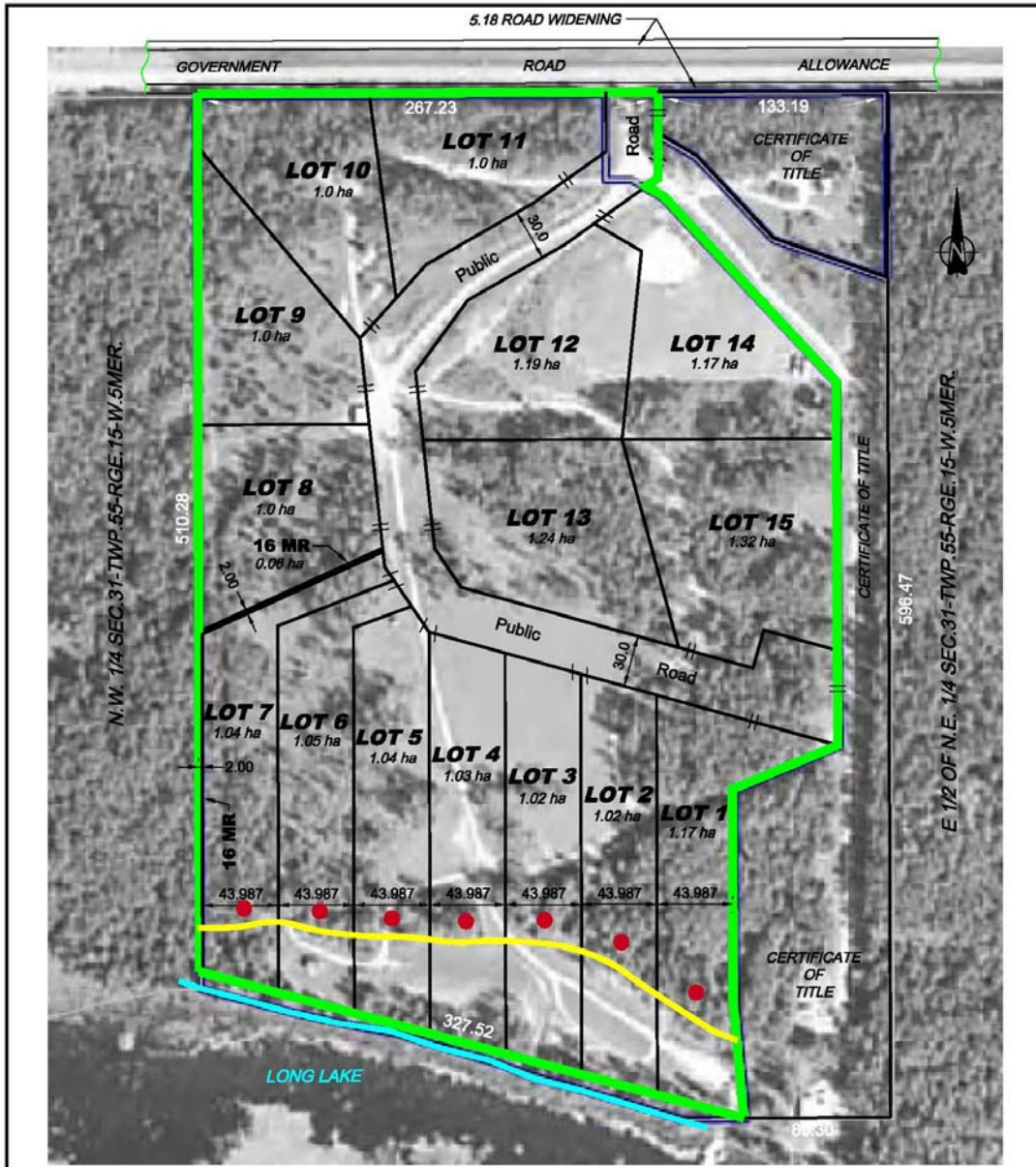


FIGURE 2 - PROPOSED LAND USE BYLAW AMENDMENT



Redistrict area indicated from: RL - Low Impact Recreational District
to: CR - Country Residential District



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 & Community Services Consultants

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LEGEND:

- Subdivision Boundary
- Derived from Subdivision Plan 062 0181
- Lot Boundaries
- No dwelling will be located closer to the lake than this line
- Proposed dwelling location for lakefront lots
- Distances are in metres and decimals thereof.
- Total area of subdivision is 18.4 ha.

Revised May, 2007 - Added 16 MR

CONCEPT PLAN
WHITETAIL SHORES
 N.E. 1/4 SEC.31
 TWP.55 RGE.15 W.5MER.
 YELLOWHEAD COUNTY, ALBERTA

DESIGNED: GH | DRAWN: SCS | REVIEWED: GH | APPROVED: GH | MARCH, 2007
 CAD FILE: CONCEPTPLAN.DWG | SCALE: 1:3,000 | DWG No. 1 of 1

2) SETTING AND ADJACENT LAND USES

Whitetail Shores is located in a beautiful setting on the north bank of Long Lake, just 400 m west of Long Lake Park on Township Road 560, which forms the north boundary of the property - see Location Maps. The property has been home to a private campground development. Two rustic cabins, a ball diamond and a substantial shower house are situated on the property accessed by a private, internal road.

The subject land slopes downward from north to south: from the highest point at Township Road 560 (north) toward Long Lake (south). The slope is fairly constant from the Township Road southward until a comparatively gently sloped lower bench is reached approximately 200-250 m landward from the north bank of the Lake, the area within which the lakefront lots are to be located. None of the grades referenced preclude either the development of dwellings or the construction of an internal public road. A Deferred Reserve Caveat, Environmental Reserve Easement and Utility ROW (in favour of Yellowhead Gas Co-op) are registered against the existing title.

Two dwellings exist within Block 1, Plan 062 0181. One is located in the northeast corner of the property adjacent to Township Road 560 on what will be the remnant of subject lands. On a separate title (Lot 1, Block 1), the other is located in the southeast corner next to the Lake accessed by a long panhandle driveway along the east boundary of the site connecting the lakeside dwelling to the stubbed public road at the top which then intersects with Township Road 560.

The immediately adjacent parcels to the east and west are privately owned while the quarter section to the north across Township Road 560 is Crown land. All three adjacent properties are essentially tree-covered and, of course, Long Lake is to the south.

3) LAND USE POLICY/BYLAWS CONTEXT

The subject land is currently within the RL - District of the Land Use Bylaw which does not allow for the proposed number of parcels. Thus, approval of Whitetail Shores requires redistricting from the RL - District to the CR - District. In terms of compatibility with adjacent lands, it is important to reiterate that the subject lands are bounded by Long Lake and surrounded by essentially tree-covered properties on the other three sides. Also, given that the Edmonton region will be part of the marketing focus for Whitetail Shores, it is expected that a number of the lots will be used on a recreational/seasonal basis. Lastly, this area is not considered better agricultural land.

The CR - District requires a minimum parcel size of 1.0 hectare (~2.5 acres) and does not specify a maximum parcel size. All of the proposed lots are at least 1.0 hectares, each with a developable area of at least 0.4 ha. in accordance with County policy and Alberta Environment's Guidelines. This component is discussed further under Section 5 below, particularly with respect to sewage treatment and availability of potable water. Reference is made to percolation/near-surface water table testing conducted by EXH Engineering Ltd., including updated information provided in May 2007, as well as a Groundwater Potential Assessment conducted by Waterline Resources Inc.

4) LAND USE, SUBDIVISION DESIGN, DEVELOPMENT STANDARDS AND DENSITY

The subject land offers a beautiful and secluded all-season recreational and residential setting within a relatively short distance of Edson and Whitecourt. It also constitutes a distinctly different alternative to most subdivisions available within the Edmonton region.

Seven of the fifteen lots are adjacent to the Lake with the other eight lots, though not adjacent to the lake, offering good views thereof. In a similar subdivision within the Edmonton region, one would surely find a considerably greater number of lakefront lots meaning they would be considerably narrower and smaller. Though there are seven lakefront lots in this case, each is 43.987 m in width (144.3 ft.) which is, at the very minimum, double the lake frontage that would be available within the Edmonton region. Many resort, lakefront properties, both old and newly created provide no more than one third (ie: 15 m - 50 feet) of this lake frontage. It is equally important to consider that the lot depth being proposed here (~218 m - 715 ft) is between four and five times greater than the average for lakefront lots within the Edmonton region. Equally significant is that these seven lakefront lots would also be considerably larger than those found at Bear Lake. For all of these reasons, it is expected that the 15 lots being proposed here will be taken up relatively quickly, especially those adjacent to the Lake.

As mentioned previously, the 15 lots being proposed will be serviced with an internal subdivision road (approximately 575 m in length, 30 m ROW) that will connect to Township 560 via a short length of existing public road created to service the existing subdivision. All approaches will be located to provide good sight lines and safe egress from/access to the internal subdivision road. Wherever possible, approaches will be immediately across from one another and shared to ensure proper access management and limit the number of access points. For the first 325 m or so, the internal subdivision

road will follow the alignment of the road built to service the campground. The remaining 250 m to the terminus of the cul-de-sac (to Proposed Lot 1) will be new alignment. Of course the entire length of internal subdivision road will be built to the standards and satisfaction of Yellowhead County.

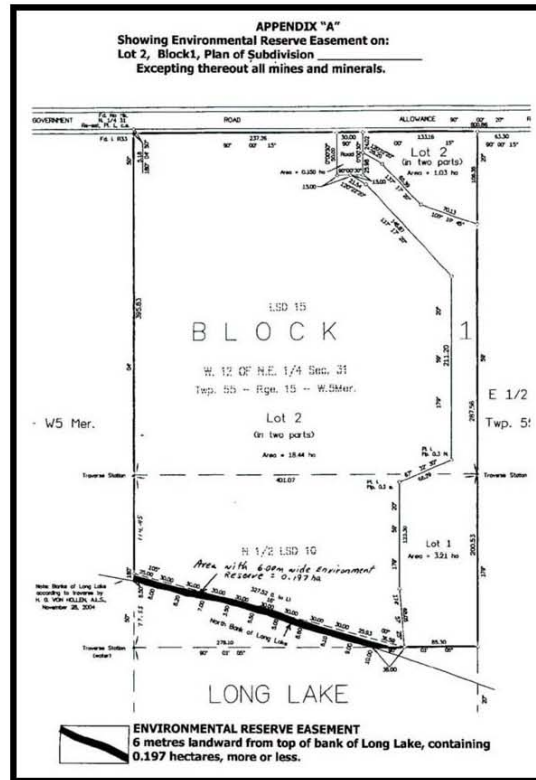
To serve an important FireSmart principle, it is proposed that an approach be located where the cul-de-sac intersects the access panhandle servicing the existing titled area in the southeast corner. This would be of benefit to all parties concerned in the event that either the internal subdivision road or the private access panhandle road would become constricted or blocked during an emergency event.

The developer, who will be retaining/developing two of the lots for his own personal use, is also prepared to impose fundamental FireSmart principles as they pertain to the development of the individual lots. A sample FireSmart Restrictive Covenant is attached to this document as Appendix 4 which includes the most important elements of FireSmart site development ranging from requiring the use of metal roofing or fire-rated shingles and clearing of understory debris/fuel to prohibiting the use of wood laticing and the storage of firewood and other flammable materials under decks. These site development measures in combination with the internal road standards and approach to the existing lot at the terminus of cul-de-sac mentioned earlier will provide a level of safety and peace of mind not yet commonly seen in such subdivisions.

The subdivision has been designed to take full advantage of the terrain and existing vegetation to provide as much spacing as possible between building sites in keeping with the intended nature/character of the subdivision. Despite the additional space between dwellings that will be afforded the seven lakefront lots just due to their size (as compared to a subdivision like Bear Lake), the developer is also keen to have dwellings siting on Lots 1 through 7 such that space between the units is maximized. With this in mind, the developer will be able to require an absolute minimum of 22.86 m (75.0 ft) between dwellings and take advantage of existing vegetation, topography, etc. to increase privacy beyond distance separation alone. Also, as the Concept Plan shows, the developer will not allow any dwelling to encroach into the existing clearing along the lakefront and no dwelling will be located along the lake such that it will block the view of any other lakefront dwelling. All of this will be enforced via Restrictive Covenant.

It should be noted that an ERE in the amount of 0.197 ha. ± was registered against the subject lands (Caveat 062 018 416) as part of a previous subdivision in 2006. It covers an area 6.0 m landward from the top-of-bank of Long Lake and will remain in place – see Figure 4 on the next page.

FIGURE 4 - EXISTING ENVIRONMENTAL RESERVE EASEMENT



In terms of municipal reserve (MR), Deferred Reserve Caveat (DRC) 062 018 415 is currently registered against the subject lands in the amount of 1.82 ha. This is the full amount of MR owing for these lands as calculated as part of the last subdivision in 2006. The amount of land named in ERE 982 019 300, as shown on the previous page, has already been factored into the amount of MR specified in DRC 062 018 415. No additional ER or ERE is being (or can be) proposed here. As the Concept Plan shows, an MR strip (Lot 16 MR) is being provided in the southwest corner to provide access to the Lake for the non-lakefront lots. Cash-in-lieu of reserve land owing is proposed to be paid to the County for all remaining MR owing as a condition of subdivision approval.

Though a Yellowhead Gas Co-op Utility ROW is registered against the title under Caveat 972 166 058, there are no sour gas wells or pipelines within the titled area. Circulation of these applications and supporting material to the AEUB will reveal if any sour gas or high pressure sweet gas facilities are present within adjacent lands that will have to be accounted for in the design and/or approval of the subdivision.

Because of the anticipated seasonal/recreational use of many of the proposed lots in the subdivision, it is difficult to accurately project population density in this case. With this in mind, it is estimated that the proposal will result in a population density of approximately 2.0 persons per gross hectare (ie: 2.5 persons per unit X 15 lots = 37.5 persons divided by the subdivision area of 18.44 ha.). Even assuming a household size of three persons, the subdivision would only result in ~2.4 persons per gross hectare.

5) SERVICES

The results of the soils and near-surface water table testing conducted by EXH Engineering Ltd., updated in May 2007, are presented in Appendix 1. The EXH Report, points out that where amenable sub-surface conditions do not exist for septic fields (e.g. where near surface water table may be slightly too high, which exists in the case of three of the fifteen test holes examined), the sites can either be altered in order to make the siting of septic fields possible (e.g. by raising ground elevation such that the required 2.4 m to near-surface table is maintained) or alternative methods such as treatment mounds can be utilized. The May 2007 update to the EXH Report clearly indicates that the use of a treatment mounds are possible in this subdivision. Treatment mounds are not only an acceptable method of on-site sewage treatment in Alberta, it is a method widely and successfully used in the Province. Though not all lots would require treatment mounds in this subdivision, if necessary, each lot proposed is sized and configured such that a treatment mound could be utilized in accordance with the design, construction and siting standards established for such facilities by the Alberta Private Sewage Systems Standard of Practice. In fact, as noted in the Provincial regulations, long and narrow lots are especially well suited to installing treatment mounds, which are themselves long and narrow. In the case of the seven lakefront lots, the treatment mound would be located north of the seven proposed dwelling locations indicated (with red dots) on the Concept Plan - ie: in behind the dwellings, between the road and the dwellings, away from the Lake. The yellow line on the Concept Plan represents the very closest point a dwelling could be located in relation to the Lake. This site development arrangement, combined with the depth of the seven lakefront lots, will easily ensure that no treatment mound will be located closer than the 90 m setback required from a waterbody in Provincial regulation.

As far as near-surface water table conditions are concerned in relation to the construction of basements, the May 2007 observations summarized in the May 2007 Update to the EXH Report (Appendix 1) indicate that in all cases, depth to water table for the purposes of basement construction is greater than the 1.5 m required by the County. In fact, a depth to water table of 2.2 m, which represents the worst result reported, occurs in only 3 of 15 lots. All other test holes indicate at least 2.5 m depth to water table or greater.

In terms of potable groundwater, the Groundwater Potential Assessment prepared by Waterline Resources Inc. (see Report Summary in Appendix 2) concludes that underlying aquifers will meet the potable groundwater diversion required for the subdivision in accordance with the Water Act.

Should the owner/developer be responsible for developing a storm water management plan as part of the development agreement, it should be noted that the relatively large parcels will provide for maximum on-parcel stormwater absorption/drainage. Moreover, the lay of the land is such that whatever overland storm water run off there would be could be easily channelled toward Long Lake.

It is understood that the owner/developer will be responsible for all utilities including electric power, natural gas, telephone, etc.

6) MUNICIPAL/SCHOOL AUTHORITY IMPACT

Yellowhead County will be in the position of being able to acquire a tax base (as compared to the existing, limited use) at comparatively little cost. Because of on-site servicing, the County would not be responsible for the maintenance of any municipal services. Since the 6.0 m landward from Long Lake is protected by way of ERE, not ER, there will be no ownership of or on-going responsibility for such lands by the County. The only MR being dedicated is the strip of land in the southwest corner to provide pedestrian access to the Lake for the non-lakefront dwellings. This will be a developed as a single walking path to minimize disturbance of the existing vegetation and maintenance. This is also to provide as much seclusion and privacy as possible not only for the individuals using the walkway but also for the landowners adjacent to the MR strip.

Of course the County will become responsible for maintenance of the internal road, providing emergency services to the residents, and so forth. However, the low density of the subdivision itself should have little impact on the internal road. In addition, the

County already incurs the costs of maintaining the existing roads in the area and this subdivision will provide 15 additional lots contributing to the tax base for maintenance and service provision.

In terms of impact on schools in the area, again, it is difficult to precisely determine the number of school-aged children resulting from this subdivision because of the expected seasonal/recreational use of many of the proposed lots. In light of this, it is estimated there will be a maximum of 15 school-aged children (assuming one school-aged child per household). The effect on the school systems in the area is arguably negligible. In fact, the school bus service already provided to the existing residents in the area could be made more economic by increasing the number of children in the area.

7) CONCLUSION

The foregoing, in our opinion, provides sufficient information with which to evaluate and decide upon the LUB amendment and proposed subdivision. It also our position that it fully satisfies the need to undertake advance planning in support of redistricting and subdivision applications.

In conclusion, we ask that the Council of Yellowhead County find this Area Structure Plan and supporting documentation acceptable and proceed with the approvals we seek.

Respectfully submitted,



Greg Hofmann, M.A., ACP MCIP

- APPENDIX 1) Review of Site Suitability for
Establishment of Effluent Disposal Fields
Prepared by EXH Engineering Ltd.
{Note: Summary of Full Report, INCLUDING
UPDATED (MAY, 2007) NEAR-SURFACE
WATER TEST RESULTS, MAP SHOWING
LOCATION OF TEST HOLES AND
CONCLUSION RE: THE USE OF
TREATMENT MOUNDS}
-

May 23, 2007

4206111

Whitetail Shores

9620 58th Ave.

Edmonton, AB, T6E 6C1

Attention: Mr. Gary Lalonde

Re: Review of Additional Ground Water Table Readings W 31-55-15-W5M

EXH Engineering Services Ltd was retained by Whitetail Shores to review additional ground water table readings within a portion of W ½ - 31 - 55 - 15 - W5M for building sites of the proposed subdivision.

Water Table

A summary of the results are provided in Table 1 below. Numbers have been rounded.

Table 1 – Ground Water Table Observation Test Hole Results

Water Table Observation Test Hole Number	Date of Initial Measurement	Water Depth Below Surface
Lot 1 Test Hole	May 20/07	> 3.28m
Lot 2 Test Hole	May 20/07	2.20m
Lot 3 Test Hole	May 20/07	2.67m
Lot 4 Test Hole	May 20/07	2.50m
Lot 5 Test Hole	May 20/07	> 3.23m
Lot 6 Test Hole	May 20/07	2.20m
Lot 7 Test Hole	May 20/07	> 3.05m
Lot 8 Test Hole	May 20/07	> 3.18m
Lot 9 Test Hole	May 20/07	> 3.12m
Lot 10 Test Hole	May 20/07	2.90m
Lot 11 Test Hole	May 20/07	2.50m
Lot 12 Test Hole	May 20/07	2.80m
Lot 13 Test Hole	May 20/07	2.20m
Lot 14 Test Hole	May 20/07	2.80m
Lot 15 Test Hole	May 20/07	2.80m

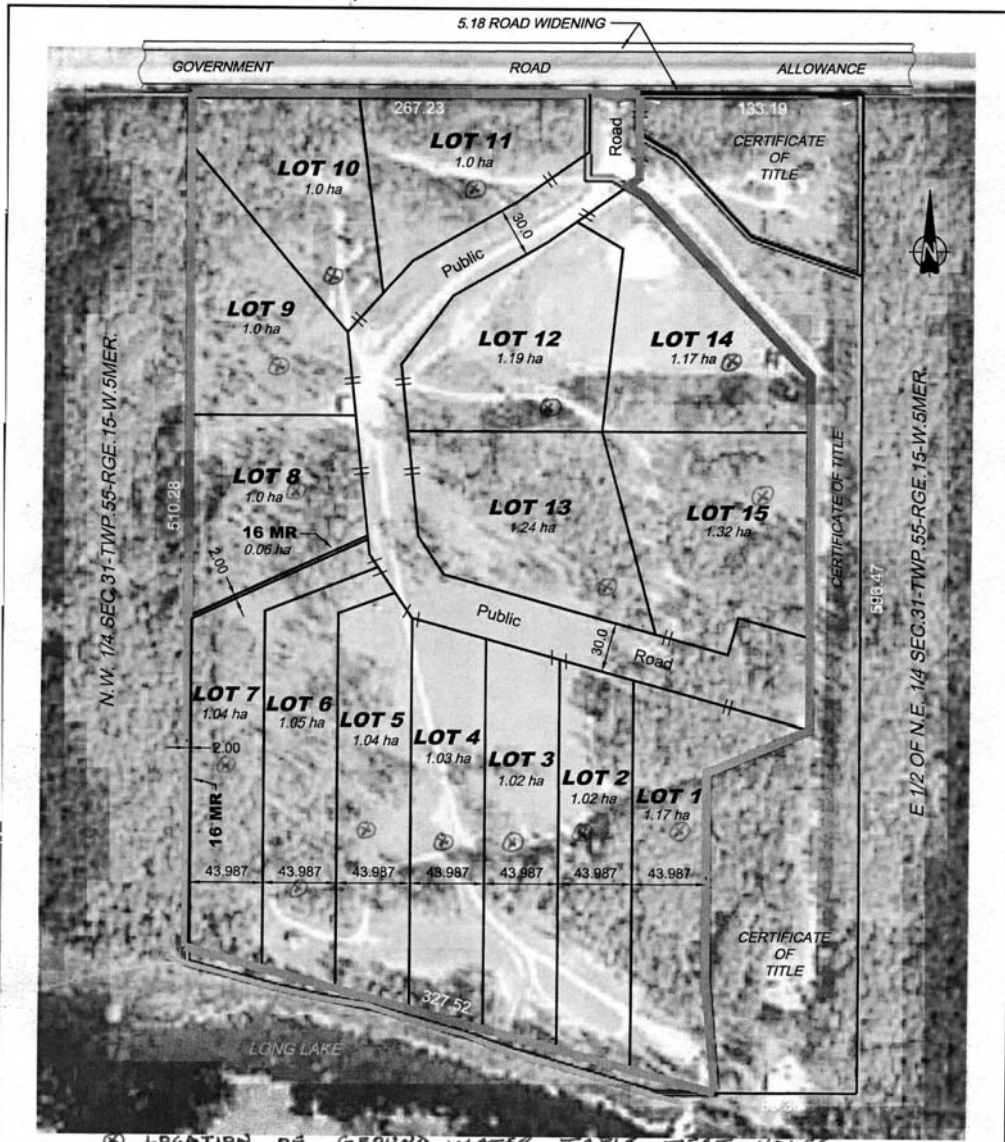
Locations based on the new Concept Plan (G.T. Hofmann & Associates – concept plan.dwg).

Sincerely,

Doug Laboucane, Area Manager

C:\Documents and Settings\Greg Hofmann\My Documents\Business Files\Yellowhead County\Whitetail Shores\Draft Documents\Whitetail Shores - Additional Ground Water Table Test Holes.doc

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 & Community Services Consultants

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LEGEND:

Subdivision Boundary
 Derived from Subdivision Plan 062 0181
 Lot Boundaries
 Distances are in metres and decimals thereof.
 Total area of subdivision is 18.4 ha.

Revised May, 2007 - Added 16 MR

CONCEPT PLAN
WHITETAIL SHORES
 N.E. 1/4 SEC.31
 TWP.55 RGE.15 W.5MER.
 YELLOWHEAD COUNTY, ALBERTA

DESIGNED: GH | DRAWN: SCS | REVIEWED: GH | APPROVED: GH | MARCH, 2007
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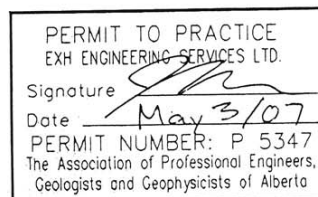
- An alternate method such as the use of a mound is possible for the test hole locations where the water table was too high or where the percolation rates were not acceptable and providing that the mound and its location meets all requirements of the *Alberta Private Sewage Systems Standard of Practice*.
- The location of a disposal field or treatment facility could be limited by site features, such as proximity to water courses, existing dwellings, slopes and similar issues. If the site is considered sensitive, based on the above criteria, alternate methods of sewage treatment and disposal should be investigated.
- All work, and subsequent measurements, should conform to the requirements of the *Alberta Private Sewage Systems Standard of Practice*.

Closure

This review is based upon the measurements and observations noted herein. Additional measurements may result in variations. This review does not represent a design of the disposal system nor does it negate the requirement for specific additional on-site tests at the proposed field locations.

This review has been prepared for the sole use of the Owner. Use of this information, in whole or in part, by third parties, or use by any persons or organizations whatsoever for any purposes other than those specifically stated herein, is not permitted without the express written permission of EXH Engineering Services Ltd.

We hope you will find this review satisfactory.



Yours truly;
Craig T. Suchy, P. Eng.
EXH Engineering Services Ltd

EXH

4206111
December 11, 2006

Whitetail Shores
9620 58th Ave.
Edmonton, AB
T6E 6C1

Attention: **Mr. Gary Lalonde**

**Re: Review of Site Suitability for Establishment of Effluent Disposal Fields
W ½ - 31 - 55 - 15 - W5M**

EXH Engineering Services Ltd was retained by Whitetail Shores to assess the subject property, located at Lot 2, Block 1, Plan 062 0181, within a portion of W ½ - 31 - 55 - 15 - W5M, with respect to its suitability for establishment of septic fields for wastewater disposal for residential dwellings. The location and configuration of the proposed development are shown on the site sketches, contained in Appendix A.

In general, this review involved the following procedures:

- Observation holes were established at the percolation test locations in order to estimate the separation to the water table.

All tests and site measurements were conducted by EXH Engineering Services Ltd personnel.

This review has been carried out based upon the *Alberta Private Sewage Systems Standard of Practice*, January 1999. The review did not extend to an assessment of the environmental suitability of the site.

Water Table

With respect to the water table, the Standards of Practice requires that there be a minimum separation of 1.5 m between the lowest point where the effluent will be discharged and the water table, and that this separating soil has an appropriate rate of percolation (5-60 minutes/inch).

Water table observation holes were established on October 27, 2006 (See Appendix A, Water Table location). Each hole was drilled to a depth of 3.1 m to 3.23 m. The approximate hole locations are shown on the site drawing in Appendix A.

A summary of the results are provided in Table 1 below. Numbers have been rounded.

Table 1 – Water Table Observation Test Hole Results

Water Table Observation Test Hole Number	Date of Initial Measurement	Water Depth Below Surface
Test Hole 1	Oct 27/06	1.00 m
Test Hole 2	Oct 27/06	2.20 m
Test Hole 3	Oct 27/06	1.00 m
Test Hole 4	Oct 27/06	1.50 m
Test Hole 5	Oct 27/06	2.00 m
Test Hole 6	Oct 27/06	2.20 m
Test Hole 7	Oct 27/06	1.30 m
Test Hole 8	Oct 27/06	3.10 m
Test Hole 9	Oct 27/06	2.20 m
Test Hole 10	Oct 27/06	1.90 m
Test Hole 11	Oct 27/06	2.80 m
Test Hole 12	Oct 27/06	2.80 m
Test Hole 13	Oct 27/06	2.80 m
Test Hole 14	Oct 27/06	2.50 m
Test Hole 15	Oct 27/06	2.90 m
Test Hole 16	Oct 27/06	2.90 m

Septic tanks in the area are to be placed approximately 0.90 m below the surface. Alberta Environment requires a minimum 1.5 m separation between the lowest point where the effluent will be discharged and the water table. This means that the water table must be at least 2.40 m below the surface. With respect to these observations, the water table is too close to the ground surface at holes 1, 2, 3, 4, 5, 6, 7, 9, and 10, to permit the establishment of standard effluent disposal fields. All other water table depths are sufficient for the establishment of standard effluent disposal fields. See Appendix B for details of results.

Follow-up measurements could be taken as water table elevations fluctuate seasonally. Water table elevations were tied to geodetic elevations.

Percolation Tests

Percolation tests were only conducted near test holes where the water table was not too high based on initial observations.

A summary of Percolation test results can be found in Table 2 below.

Table 2 – Percolation Test Results

Percolation Test hole Number	Average Reading Min./inch	Soil Type
8A	381	clay
8B	762	silty clay loam
11A	211.67	silty clay
11B	91.72	clay loam
12A	61.87	silty clay loam
12B	49.74	silty clay loam
13A	338.67	silty clay loam
13B	296.33	clay loam
14A	190.50	loam
14B	254.00	loam
15A	31.33	clay loam
15B	35.74	clay loam
16B	43.99	silty clay loam

The acceptable range for percolation tests is 5-60 min/inch. Based on the percolation test results, only testholes 12B, 15A, 15B, and 16B are within the acceptable range. Detailed results can be found in Appendix B, and soil analysis can be found in Appendix C.

Additional Considerations

It may be possible to dispose of effluent by creating a sufficient layer of suitable material between the disposal point and the water table, and disposing of the water through both downward movement and evaporation. This is usually done through the construction of mounds. A mound is a seepage bed elevated by clean fill. A sketch of a typical system is attached. The sand cap helps avoid undue soil compaction so that

pore spaces within the underlying layers are maintained. A covering of 150mm of topsoil and vegetation helps draw moisture up for disposal by evaporation. The vertical separation between the bottom of the mound rock bed and the restricting soil layer should be 1.5 m. The location of a mound will depend upon the topography of the site. Mound construction details can be found in Appendix D.

This information is very general. Any solution would have to be specific to the site and the proposed development.

The *Alberta Private Sewage Systems Standard of Practice* identifies a number of considerations with respect to placement of a disposal field. With respect to off-set distance requirements, these include:

- 1.5 m from a property line,
- 90 m from a permanent body of water, such as a river, stream or creek,
- 15 m from a water source,
- 15 m from a water course,
- 9 m from a basement, cellar or crawl space,
- 1 m from a dwelling without a basement, cellar or crawl space.

Additional restrictions and details are contained in the standards. The scope of this review did not extend to confirming the suitability of lot lay-out or specific septic field / mound locations.

Conclusions and Recommendations

Based upon the review of site information, we have the following conclusions and recommendations:

- Soil conditions appear to be consistent through the area reviewed, with a predominance of silty clay loam.
- Initial water table observations indicate insufficient separation between the bottom of the field and the water table in test holes 1, 2, 3, 4, 5, 6, 7, 9, and 10. Water table depth must be confirmed at the septic field location prior to development of the field.
- Percolation tests were not conducted in test holes noted above due to the close proximity of the water table to the ground surface. Percolation tests were conducted in test holes 8, 11, 12, 13, 14, 15, and 16.
- The site does not appear to be suitable with respect to establishment of standard effluent disposal fields in test hole numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, and 14. The remaining test holes 12, 15 and 16 were deemed suitable.

- An alternate method such as the use of a mound could be examined for the test hole locations where the water table was too high or where the percolation rates were not acceptable.
- The location of a disposal field or treatment facility could be limited by site features, such as proximity to water courses, existing dwellings, slopes and similar issues. If the site is considered sensitive, based on the above criteria, alternate methods of sewage treatment and disposal should be investigated.
- All work, and subsequent measurements, should conform to the requirements of the *Alberta Private Sewage Systems Standard of Practice*.


Closure

This review is based upon the measurements and observations noted herein. Additional measurements may result in variations. This review does not represent a design of the disposal system nor does it negate the requirement for specific additional on-site tests at the proposed field locations.

This review has been prepared for the sole use of the Owner. Use of this information, in whole or in part, by third parties, or use by any persons or organizations whatsoever for any purposes other than those specifically stated herein, is not permitted without the express written permission of EXH Engineering Services Ltd.

We hope you will find this review satisfactory.



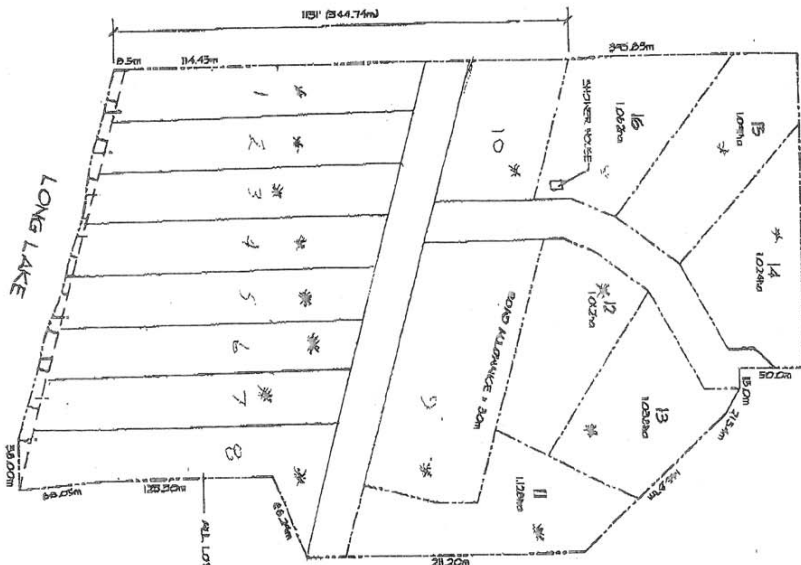
PERMIT TO PRACTICE EXH ENGINEERING SERVICES LTD.
Signature 
Date <u>Dec 11 / 06</u>
PERMIT NUMBER: P 5347 The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Yours truly;
Gordon J Ludtke, P. Eng.
EXH Engineering Services Ltd

WHITetail SHOULDER INC.

UNRESERVED PLANN

W/2 31-55-15-5



LEGAL DESCRIPTION
 LOT 3, BLK 1
 PLAT 0443 C&D
 PART OF N 1/2 SEC 51, TP 53, R 15, W6
TOTAL AREA
 16.44 ACRES

* - PERC HOLE
 (41397.77')

ALL LOTS ARE APPROX.

NOTE: This document can be used for legal purposes only if it is signed and dated by the Surveyor.

Surveyor: **Robert Campbell, Inc.**
 License No. 10000
 State of North Carolina

Project: **SEABAY LANDS, LLC INC.**

Drawing No: **SP-2006-01**

Date: **12/6/2006**

Scale: **AS SHOWN**

Author: **RC**

Check: **RC**

Reviewed: **RC**

Approved: **RC**

Accepted: **RC**

Map No. **10000**

Map Date **12/6/2006**

Map Title **SP-2006-01**

Map Scale **AS SHOWN**

Map Author **RC**

Map Check **RC**

Map Reviewed **RC**

Map Approved **RC**

Map Accepted **RC**

EXH EDSON- 1:10PM Dec. 6, 2006

APPENDIX 2) Groundwater Potential Assessment
Prepared by Waterline Resources Inc.
{Note: Summary of Full Report}



Waterline Resources Inc.



Waterline Resources Inc.
531 - 24 Avenue N.W.
Calgary, Alberta
Canada, T2M 1X4
Tel: (403) 243-5611
Fax: (403) 243-5613
Email: info@waterlineresources.com

January 12, 2006
WL07-1227

EXH Engineering Services Ltd.
4730 - 3rd Avenue
Edson, Alberta
T7E 1C2

Attention: Doug Laboucane

Dear Mr. Laboucane:

**RE: GROUNDWATER POTENTIAL ASSESSMENT, Proposed Whitetail Shore 16-Lot
Rural Subdivision, NE-31-055-15-W5M, Near Edson, Alberta**

INTRODUCTION

Waterline Resources Inc. (Waterline) is pleased to present the results of the groundwater potential assessment for a proposed rural subdivision (the Site) to be located in NE-31-055-15-W5M, approximately 25 km north east of the Town of Edson, Alberta, (Figure 1). The developer has proposed a subdivision consisting of 16 residential lots within the Site (Whitetail Shore Subdivision).

Information sources included the Alberta Environment (AENV) Provincial Water Well Database (July 2006) and relevant and readily attainable published geology and hydrogeology maps and reports.

INVESTIGATION GUIDELINES

This study was completed in general accordance with the 1994 AENV publication "interim Guidelines For The Evaluation Of Groundwater Supply For Unserviced Residential Subdivisions Using Privately Owned Domestic Water Wells". These guidelines are recommended for use for unserviced residential subdivisions where the water supply will be provided by privately owned domestic water wells and, where the number of residential parcels within one quarter section is six or more.

As stated in the guidelines, the principle of sustainable development should guide the utilization of groundwater resources. Specifically, the guidelines state that: "the threat of groundwater shortages and contamination grows with the density of wells and their collective demand on the local groundwater resources". The guidelines also state that as a component of a General Municipal Plan, groundwater availability could be mapped and used as criteria for locating future unserviced residential subdivisions. In any area, continued development of the groundwater resource can ultimately exceed recharge of the aquifers causing groundwater mining, which can result in decreasing water levels. A regional assessment would have to be completed by/for

regulatory authorities in order to assess these impacts on the aquifer system. The results of this type of study should be adopted into groundwater management criteria for future use in locating and managing other developments within the County. This philosophy has been incorporated into the Act, which came into force January 1, 1999. The Water Act sets up the framework for the future development of "Water Management Plans" within defined watersheds. This approach is also consistent with AENV's move to a wellhead protection and integrated watershed management philosophy.

Section 23 (3) which states that a person residing within a subdivision on a parcel of land has the right to commence and continue the diversion of water only if *"a report certified by a professional engineer, professional geologist or professional geophysicist, as defined in the Engineering, Geological and Geophysical Professions Act, was submitted to the subdivision authority as part of the application for subdivision under the Municipal Government Act, and the report states that the diversion of 1,250 cubic metres of water per year for household purposes under section 21 for each of the households within the subdivision will not interfere with any household users, licensees or traditional agriculture users who exist when the subdivision is approved."*

Relevant to the proposed development in the subject area, the Act specifies that the diversion of 1,250 m³/year per household (household use as defined in the Act) for the proposed new undeveloped lot should not interfere with any household users, licensees or traditional agriculture users who exist when the subdivision is approved. Therefore, the objective of this study is to render a professional opinion, based on a review of readily available information, whether aquifers underlying the proposed 16 undeveloped lots in the study area can sustain production of 20,000 m³/year, equivalent to continuous production of approximately 8 Imperial gallons per minute (lgpm), and whether managed diversion of that groundwater will negatively impact existing users of the groundwater resource, as defined in the Act.

Waterline's opinion presented herein is based on the assumption that existing domestic users in the area, and users proposed at the Site will utilize less than or equal to 1,250 m³/year/lot obtained at a daily rate of less than or equal to (1,250 m³/year/lot ÷ 365 days) 3.43 m³/day/lot, or 753 imperial gallons per day per lot. The 1994 AENV publication "Interim Guidelines For The Evaluation Of Groundwater Supply For Unserved Residential Subdivisions Using Privately Owned Domestic Water Wells" indicates that residential water needs are estimated to be 0.23 - 0.68 m³/day/person (50 - 150 imperial gallons per day per person). Therefore, a water consumption limit of 3.43 m³/day/lot is considered conservative for an average family.

GEOLOGY

The surficial geology of the site can be evaluated from a review of AENV water well records, listed in the AENV provincial water well database (AENV, 2006), for the six records located within section 31-055-15-W5M (full records provided in Appendix A). The well information indicates that the general Site area is underlain by 7 to 24 m (23 to 78 ft) of any combination of clay, sand and/or gravel.

Bedrock beneath the site is mapped as the Paskapoo Formation, which is described as thick-bedded, calcareous, cherty sandstone; siltstone and mudstone; minor limestone, conglomerate, coal and tuft beds (Vogwill, 1983).

Figure 2 presents a geological fence diagram (cross-section) orientated approximately west-east, extending through the general Site area. The cross-section location is shown on Figure 1. The cross-section includes soil and bedrock stratigraphy data obtained from five water wells completed adjacent to the Site area [AENV Well ID No. 0492379, 0445734, 0468336, 0495922 and 0351806].

The bedrock geology recorded on water well completion records listed in the AENV water well database for the general area is consistent with the regional geologic mapping, which includes interbedded shale and sandstone with occasional siltstone/mudstone and coal seams.

HYDROGEOLOGY

AENV Database

The AENV database lists 41 water well records within approximately 4 km of NE-31-055-15-W5M. Of the records listed, only a subset typically represents water wells currently in operation. Information for all records is summarized, in tabular format, in Appendix A. Full records are also provided in Appendix A for water well drilling reports used to construct the geological cross-section. The records indicate that present groundwater use in the area is primarily for industrial requirements, with lesser use indicated for domestic/stock and municipal consumption.

Well Completion Depth and Static Water Level

Water wells in the greater study area, appear to be completed within 12.2 to 87.8 m (40 to 288 ft) below ground level (bGL), with a calculated average depth of 30.7 m (101 ft) bGL, primarily in sandstone and shale units of the Paskapoo Formation. Static water levels, measured in area wells following construction, were recorded to be between 0.9 to 56.4 m (3 to 185 ft) bGL, with a calculated average static water level depth of 10.8 m (35 ft) bGL.

Aquifer Depth and Well Yield

The main water bearing units developed for local water supplies in NE-31-055-15-W5M appear to be primarily sandstone units of the Paskapoo Formation. The safe yield of wells in NE-31-055-15-W5M is mapped as 114 to 2,273 L/min (25 to 500 lpm), while to the north and west of the Site the safe yields are mapped as 455 to 2,273 L/min (100 to 500 lpm). The safe yield of the wells to the south and east of the Site are mapped as 114 to 455 L/min (25 to 100 lpm). The range of average expected yield is based primarily on qualitative information from flow regime and lithology (Vogwill, 1983).

Limited duration well tests, completed by the drillers following construction, on wells located within approximately 4 km of NE-31-055-15-W5M, have been conducted in the range of 33.1 to 293.0 L/min (7 to 62 lpm), with a calculated average test rate of 134.9 L/min (29 lpm).

Therefore, the well tests appear to indicate that the single well yields generally fall within the range of safe yields mapped for the area. Based on regional mapping (Vogwill, 1983) and area topography, groundwater underlying the Site is expected to flow to the south towards Long Lake and further to Macleod River.

Groundwater Quality

Based on the Vogwill (1983) report, the regional groundwater quality in the area is mapped as having a total dissolved solids (TDS) concentration in the order of 500 mg/L for both the overburden and bedrock deposits, with anions dominated by bicarbonate, and cations dominated by sodium and calcium in variable proportions. Three AENV (AENV, 2006) water quality reports for groundwater samples collected from wells located within a 4 km radius of the Site area were available for printing and review.

PARAMETER	AENV Well ID # 0394208	AENV Well ID # 0445734	AENV Well ID # 0445889	Guidelines for Canadian Drinking Water Quality
pH	7.9	8.8	NA	6.6-8.5
Electrical Conductivity	650 µS/cm	1050 µS/cm	NA	NA
Total Dissolved Solids (TDS)	339 mg/L	606 mg/L	NA	≤ 500 mg/L
Sulphate (SO ₄)	9.99 mg/L	39.6 mg/L	NA	≤ 500 mg/L
Chloride (Cl)	1.0 mg/L	2.0 mg/L	NA	≤ 250 mg/L
Fluoride (F)	0.14 mg/L	1.2 mg/L	0.21 mg/L	1.5 mg/L
Calcium (Ca)	16.97 mg/L	1.996 mg/L	NA	NA
Magnesium (Mg)	25.02 mg/L	0.4 mg/L	NA	NA
Total Iron (Fe)	0.27 mg/L	0.8 mg/L	NA	≤ 0.3 mg/L

Bold text indicates parameter exceeds the Guidelines for Canadian Drinking Water Quality

Estimated Groundwater Allocation

AENV records indicate that 13, of the total 41, well records in and around the study area service single family dwellings (domestic and/or stock). If it is assumed that each family utilizes their full 1,250 m³/yr water allocation specified in the Act, then the water utilization within the study area represents approximately 44.5 m³/day (6.5 l/gpm) for single-well domestic allocation. The proposed 16-lots represent an additional groundwater allocation of 54.8 m³/day (8 l/gpm).

The AENV approvals database (AENV, 2006) lists five water well licenses or registrations within the development quarter section and surrounding 8 quarter sections:

Document 00208307-00-00 YELLOWHEAD/DUST CONTROL/4M WATER HAULING - F049-18-W5 is held by 4M Water Hauling, under the provisions of the *Water Act*. This licence

is currently issued as of May. 18, 2004 and expired on May. 12, 2005. This license allows the holder to divert 5000 m³/year for municipal purposes.

Document 00233262-00-00 YELLOWHEAD/DRILLING/BURLINGTON RESOURCES CANADA LTS - F055-1 is held by Burlington Resources Canada Ltd., under the provisions of the *Water Act*. This licence is currently issued as of Aug. 11, 2006 and expires on Feb. 14, 2007. This license allows the holder to divert 1000 m³/year from Long Lake for purposes of oil/gas drilling.

Document 00159288-00-00 WOLF CREEK/REGISTRATION/GORDON & SANDRA FOSSHEIM - F00159288 is held by Gordon & Sandra Fossheim, under the provisions of the *Water Act*. This registration is currently issued as of Feb. 20, 2002 and does not expire. The diversion rate for this license is unknown.

Document 00159288-00-00 WOLF CREEK/REGISTRATION/GORDON & SANDRA FOSSHEIM - F00159288 is held by Gordon & Sandra Fossheim, under the provisions of the *Water Act*. This registration is currently issued as of Feb. 20, 2002 and does not expire. The diversion rate for this license is unknown.

Document 00178610-00-00 WILLINGDON/REGISTRATION/PRONIUK, JOSEPHINE is held by Josephine Proniuk, under the provisions of the *Water Act*. This registration is currently issued as of Mar. 08, 2002 and does not expire. The diversion rate for this license is unknown.

CONCLUSIONS AND RECOMENDATIONS

- The groundwater resource development potential appears to be moderate to high, and existing water well records support the conclusion that aquifers underlying the proposed development in NE-31-055-15-W5M could meet the groundwater diversion requirement of the proposed residential development (20,000 m³/year; 8 l/gpm) as specified in the Act, without impacting existing users.
- This conclusion is based on the assessment of potential impacts on local aquifers while only considering present resource utilization and utilization proposed for the subject development. This conclusion assumes that existing and proposed users do not over-exploit the groundwater resource by excessive short-term use and maintain consumption within the residential water needs as presented in the Provincial Guidelines.
- This evaluation is based on chemistry information summarized in a regional hydrogeological reference and a full suite of chemistry analysis would be needed to confirm the quality of groundwater within the area of proposed development.

CLOSURE

The present study should be combined with the results of any future site-specific hydrogeological investigations, should they be completed, to gain a more complete understanding of the site-specific aquifer conditions underlying the study area. This will allow for the results of the present study to be updated, as necessary, and will serve to promote groundwater resource management and protection in the area for current and future users.

The findings presented in this report are based upon a review of published maps and reports, and information available from the AENV water well database. This report is intended for use in support of the application for subdivision under the Municipal Government Act, and should not be considered as a Water Management Plan or as a Phase 1 Environmental Site Assessment.

It should be noted that Waterline does not employ health care professionals, and any health related questions with regards to water quality should be discussed with the local health authority.

The enclosed study has been carried out in accordance with generally accepted hydrogeological practices. No other warranty is intended or implied.

Respectfully submitted

Waterline Resources Inc.
APEGGA Permit To Practice No. P07329

Reviewed by




Christopher Dyck, Dip., CEPIT
Hydrogeological Technician

Andrea Walter, P.Eng. M.Sc.
Senior Hydrogeologist

REFERENCES

Alberta Environment, June 27, 1994. Interim Guidelines For The Evaluation Of Groundwater Supply For Unserved Residential Subdivisions Using Privately Owned Domestic Water Wells. LUB FILE: 3000-G1-W1.

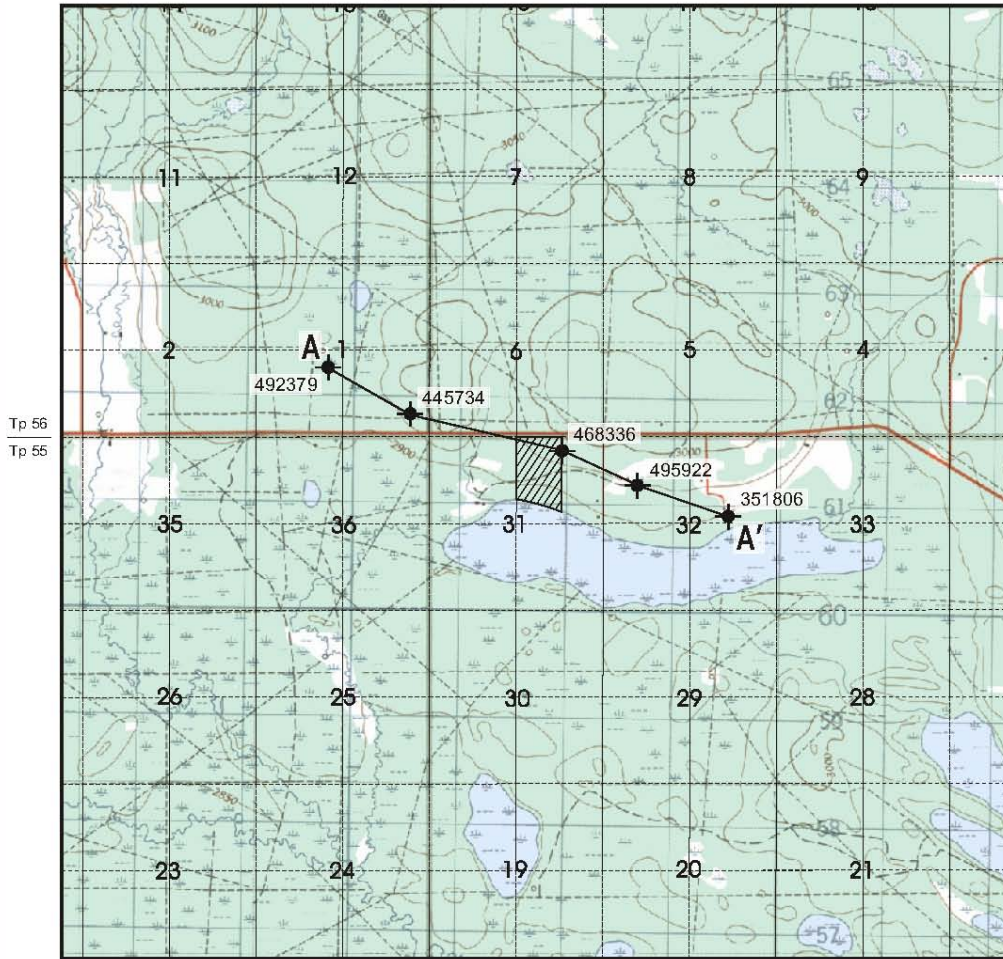
Alberta Environment Natural Resources Provincial Water Well Database, 2006.

Alberta Environment Approvals Database. 2006.

Vogwill, R. 1983. Hydrogeology of the Edson Area, Alberta. Alberta Research Council, Report 79-7.

Figures

Rge 16 | Rge 15



MAP REFERENCE: 1 : 50 000, 83 F/16 (ETOPO)

LEGEND:



SCALE = 1 : 50 000



245436 AENV WELL ID #



APPROXIMATE WELL LOCATION



CROSS-SECTION TRACE



SITE LOCATION

Waterline Resources Inc.
Groundwater Resource and Environmental Consultants

531 - 24th Avenue NW | Calgary, AB | T2M 1X4
Phone: 403-243-5611 | Fax: 403-243-5613

EXH Engineering Services Ltd.
Groundwater Potential Assessment Proposed Whitetail
Shore 16-Lot Residential Subdivision NE-31-55-15-W5M

SITE LOCATION

FIGURE
1

JAN-2006
WL07-1227

APPENDIX 3) Application Forms and
Existing Certificate of Title



YELLOWHEAD COUNTY

Application No. _____

APPLICATION FOR AMENDMENT TO THE YELLOWHEAD COUNTY LAND USE BYLAW NO. 7.98

I/WE hereby make application to amend the Yellowhead County Land Use Bylaw No. 7.98.

Applicant: Name Greg Hofmann Telephone 780 460 0894
Address G. P. Hofmann Assoc
Stortman Place, St. Albert, AB, T8N5L5

Owner of Land: Name Mary Lalonde/Jackie Telephone 780 982-9292
Address 9628-58^{Bavlas} Ave, Edm, AB T6E6C1

Land Description: Certificate of Title 062 549 858
Pt. NE 1/4 Section 31 Twp. 55 Range 15 West of S Meridian
Lot 1 Block 1 Reg. Plan No. 062 0181
Area of above-described parcel of land to be redistricted 18.44 ha ±

Amendment Proposed

FROM RD-Rural Dist TO CR-Country Residential District

Reasons in support of Application for Amendment

- See accompanying Whitetail Shores Area Structure Plan and Supporting Documentation

I/We enclose \$200.00 being the application fee, payable to Yellowhead County.

DATE Apr 2/07 SIGNATURE OF APPLICANT(S) [Signature]
DATE March 30/07 SIGNATURE OF LANDOWNER(S) [Signature] White Tail Shores Inc

This personal information is being collected under the authority of Municipal Government Act, Being Chapter M-26 R.S.A., 2000 and will be used to process amendments to the Land Use Bylaw No. 7.98. It is protected by the privacy provisions of the Freedom of Information and Protection of Privacy Act, Chapter F-18.5 R.S.A., 2000. If you have any questions about the collection of this personal information, please contact the Director of Planning, Yellowhead County, 2716-1 Ave., Edson AB T7E 1N9, (780) 723-4800.



RETURN COMPLETED APPLICATION FORM TO:

Yellowhead County

2716 - 1st. Avenue, Edson, Alberta T7E 1N9

Ph. (780) 723-4800

Fax (780) 723-5066

Email info@yellowheadcounty.ab.ca

APPLICATION FOR SUBDIVISION APPROVAL <small>(Check which applies)</small> <input type="checkbox"/> By plan of subdivision <input type="checkbox"/> By other instrument	For Office Use Only	
		Date of receipt of Form A as complete
	Fees Submitted:	
<p>THIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICABLE BY THE REGISTERED OWNER OF THE LAND THAT IS THE SUBJECT OF THIS APPLICATION OR BY AN AUTHORIZED PERSON ACTING ON HIS/HER BEHALF</p> <p>1. Name(s) of registered owner(s) of land to be subdivided: <u>Gary Lalonde & Jackie Baller</u> Address and phone no. <u>9628 - 58th Ave, Edm, AB T6E 6C1</u> <u>780 982-9292</u></p> <p>2. Authorized person(s) acting on behalf of registered owner(s): <u>Greg Hofmann, ACP MCIP</u> Address and phone no. <u>G.T Hofmann & Assoc 5 Portman Pl.</u> <u>780 460-0894</u> <u>St. Albert, AB T8N 5L5</u></p> <p><small>This personal information is being collected under the authority of Section 53 of the Municipal Government Act, being Chapter M-26.1 R.S.L. 2000 and will be used to process the subdivision application. It is protected by the privacy provisions of the Freedom of Information and Protection of Privacy Act, Chapter F-18.5 R.S.L. 2000. If you have any questions about the collection of this personal information, please contact the Director of Planning, Yellowhead County, 2716-1 Ave., Edson AB T7E 1N9, (780) 723-4800.</small></p> <p>3. LEGAL DESCRIPTION AND AREA OF LAND TO BE SUBDIVIDED (ie: existing titled area) All part of the <u>NE</u> 1/4 Section <u>31</u> Twp. <u>55</u> range <u>15</u> west of <u>5th</u> meridian Being all/part of lot <u>1</u> block <u>1</u> Reg. Plan No <u>0620186</u> Certificate of Title No. <u>062549 858</u> Municipal Address (if applicable) _____ Area of above-described parcel of land to be subdivided (ie: existing titled area) <u>18.44 ha ±</u></p> <p>4. LOCATION OF LAND TO BE SUBDIVIDED a. Is the land situated immediately adjacent to the municipal boundary? Yes _____ No <u>X</u> If "Yes", the adjoining municipality is _____ b. Is the land situated within 0.5 miles of the right-of-way of a Highway? Yes _____ No <u>X</u> If "Yes", the Highway is No. _____, the Secondary Road is No. _____ c. Is the land situated within 0.5 miles of a river, watercourse, lake or other permanent body of water, or a canal or drainage ditch? Yes <u>X</u> No _____ If "Yes", state its name <u>Long Lake</u> d. Is the proposed parcel within 1.5 km of a sour gas facility? Yes _____ No <u>Not known</u></p> <p>5. EXISTING AND PROPOSED USE OF LAND TO BE SUBDIVIDED a. Existing use of land <u>Private Campground / Vacant</u> b. Proposed use of land PLEASE INDICATE THE SIZE AND EXACT USE(S) OF: . (a) The parcel(s) being created: <u>Country Residential</u> (b) The remainder (remnant) of the existing titled area: <u>N/A</u> c. The land use district ("zoning") applied to the existing titled area under the Land Use Bylaw <u>Accompanying Application to Redistrict from RD to CR District</u></p>		

6. PHYSICAL CHARACTERISTICS OF LAND TO BE SUBDIVIDED

- a. Describe the nature of the topography of the land (e.g. flat, rolling, steep, mixed, etc.) Sloped from North to South
- b. Describe the nature of the vegetation and water on the land (e.g. brush-free stands, etc. - sloughs, creeks, etc.) Native tree, mixed, some cleared areas
- c. Describe the kind of soil on the land (e.g. sandy, loam, clay, etc.) See soils Report.

7. EXISTING BUILDINGS ON THE LAND PROPOSED TO BE SUBDIVIDED

Describe any buildings, historical or otherwise, and any structures on the land and whether they are to be demolished or moved
Several Rustic Cabins on skids, Shower House

8. WATER SERVICES

- a) Existing Source of Water: Ground water
- b) If the application will result in six or more lots on the quarter section in total, according to Section 23(3)(a) and (b) of the Water Act (Provincial Statutes) an application for subdivision is considered incomplete until one of the following requirements regarding water supply for the proposed subdivision is submitted. Please check one (or more) of the following:
 - 1. Proposed water supply to new lots by a licensed (surface) water distribution system
 - 2. Proposed water supply to new lots by individual water wells, and
 - i. Attached to the application is a report certified by a Professional Engineer, Hydrologist or Geophysicist which states that there is sufficient water to supply 1250 cubic metres of water per year to each proposed lot, and that the proposed diversion will not interfere with any existing household user, licensees, or traditional agricultural users who currently exist, or
 - ii. The diversion of water by water wells for each proposed lot conforms with an applicable, approved water management plan.

9. SEWER SERVICES

- a) Existing sewage disposal: On-site
- b) Proposed sewage disposal: On-site combination of septic fields & mounds.

10. REGISTERED OWNER OR PERSON ACTING ON HIS/ HER BEHALF

I (we) Greg Hofmann being the registered owner(s) OR authorized to act on behalf of the registered owner(s) do hereby certify that the information given on this form is full and complete and is, to the best of my(our) knowledge, a true statement of the facts relating to this application for subdivision approval.

Signature(s) [Signature]
Date Apr 2/07

THE FOLLOWING INFORMATION MUST ALSO BE INCLUDED IN SUPPORT OF YOUR APPLICATION WHICH WILL NOT BE CONSIDERED COMPLETE AND PROCESSED UNTIL SUPPLIED:

- a) A complete application form.
- b) An accurate sketch of the proposed subdivision area to include:
 - i) An approximate location, dimensions, areas and boundaries of the proposed subdivision.
 - ii) North arrow.
 - iii) An approximate location of all existing buildings (temporary and permanent), driveways and road approaches on the property with their distances to existing and proposed property lines.
 - iv) An approximate location of existing wells, septic fields, fences, trees and any permanent bodies of water on the land.
 - v) The sketch is to be drawn with a straight edge as accurately as possible.
- c) Application Fee.
- d) A complete Authorization/ Right of Entry form.



2716 - 1st Avenue, Edson, Alberta, Canada T7E 1N9
Telephone 780-723-4800 or 1-800-665-6030, Facsimile 780-723-5066

PLANNING DEPARTMENT

Our File: _____

AUTHORIZATION FORM

I (We) Gary Lalonde & Jackie Baller
{name(s) of registered owner(s)}

being the registered owner(s) of C. of T. 062 549 858, Lot 1, Blk 1, Plan 0620131
{legal description of land being subdivided}

do hereby authorize Greg Hofmann of G. T. Hofmann's Assoc.
{individual or firm making application}

to make application to subdivide the above-described land on my(our) behalf.

Jackie Baller [Signature] [Signature]
{signature(s) of registered owner(s)}

RIGHT OF ENTRY

I (We) Gary Lalonde & Jackie Baller
{name(s) of registered owner(s)}

being the registered owner(s) of C. of T. 062 549 858, Lot 1, Blk 1, Plan 0620131
{legal description of land being subdivided}

do hereby authorize representatives of Yellowhead County and other agencies designated in the Municipal Government Act, Being Chapter M-26.1, R.S.A. 2000 to enter upon my (our) land so that they may inspect same in connection with my(our) subdivision application.

Jackie Baller [Signature] [Signature]
{signature(s) of registered owner(s)}



LAND TITLE CERTIFICATE

S
LINC SHORT LEGAL TITLE NUMBER
0031 513 923 0620181;1;2 062 549 858

LEGAL DESCRIPTION
PLAN 0620181
BLOCK 1
LOT 2
EXCEPTING THEREOUT ALL MINES AND MINERALS
AREA: 19.47 HECTARES (48.11 ACRES) MORE OR LESS

ESTATE: FEE SIMPLE
ATS REFERENCE: 5;15;55;31;NE

MUNICIPALITY: YELLOWHEAD COUNTY

REFERENCE NUMBER: 062 274 579

REGISTRATION	DATE (DMY)	REGISTERED OWNER(S) DOCUMENT TYPE	VALUE	CONSIDERATION
062 549 858	29/11/2006	TRANSFER OF LAND	\$420,000	\$420,000

OWNERS

GARY TROY LALONDE

AND
JACKIE HELEN BALLER
BOTH OF:
4407 104A AVENUE
EDMONTON
ALBERTA T6A 0Z2
AS JOINT TENANTS AS TO AN UNDIVIDED 5/21 INTEREST

WHITETAIL SHORES INC..
OF 9620-58 AVENUE
EDMONTON
ALBERTA T6E 6C1
AS TO AN UNDIVIDED 16/21 INTEREST

(CONTINUED)

ENCUMBRANCES, LIENS & INTERESTS

PAGE 2
062 549 858

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
972 166 058	10/06/1997	UTILITY RIGHT OF WAY GRANTEE - YELLOWHEAD GAS CO-OP LTD.
062 018 415	12/01/2006	CAVEAT RE : DEFERRED RESERVE CAVEATOR - YELLOWHEAD COUNTY. 2716-1ST AVENUE EDSON ALBERTA T7E1N9
062 018 416	12/01/2006	CAVEAT RE : ENVIRONMENTAL RESERVE EASEMENT CAVEATOR - YELLOWHEAD COUNTY. 2716-1ST AVENUE EDSON ALBERTA T7E1N9

TOTAL INSTRUMENTS: 003

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE
REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED
HEREIN THIS 21 DAY OF MARCH, 2007 AT 07:12 A.M.

ORDER NUMBER: 7762950

CUSTOMER FILE NUMBER:



END OF CERTIFICATE

THIS ELECTRONICALLY TRANSMITTED LAND TITLES PRODUCT IS INTENDED FOR THE
SOLE USE OF THE ORIGINAL PURCHASER, AND NONE OTHER, SUBJECT TO WHAT IS
SET OUT IN THE PARAGRAPH BELOW.

THE ABOVE PROVISIONS DO NOT PROHIBIT THE ORIGINAL PURCHASER FROM
INCLUDING THIS UNMODIFIED PRODUCT IN ANY REPORT, OPINION, APPRAISAL OR
OTHER ADVICE PREPARED BY THE ORIGINAL PURCHASER AS PART OF THE ORIGINAL
PURCHASER APPLYING PROFESSIONAL, CONSULTING OR TECHNICAL EXPERTISE FOR
THE BENEFIT OF CLIENT(S).

APPENDIX 4) Sample FireSmart Restrictive Covenant

SAMPLE FIRESMART RESTRICTIVE COVENANT

RESTRICTIVE COVENANT

THIS RESTRICTIVE COVENANT IS DATED THE DAY OF _____

BETWEEN: [the "Grantor"]

AND [the "Grantee"]

RECITALS:

- A. The Grantor is the owner of the parcels of land located in the (name of municipality) which are described in Schedule "A" (collectively called "the Servient Lands");
- B. The Grantee is the owner of the parcels of land located in the (Yellowhead County) which are described in Schedule "B" (collectively called "the Dominant Lands");
- C. It is beneficial to the Dominant Lands that all of the Servient Lands be continuously used for dwellings developed to specified minimum standards within a multi-parcel country residential subdivision;
- D. To ensure that the Servient Lands will be continuously used for dwellings developed to specified minimum standards within a multi-parcel country residential subdivision, the Grantor has agreed to annex to the Servient Lands the following restrictive covenants.

THIS RESTRICTIVE COVENANT WITNESSES that, in consideration of the premises and in consideration of the sum of ONE (\$1.00) DOLLAR and other good and valuable consideration passing from the Grantee to the Grantor (sufficiency and receipt of which is acknowledged by the Grantor), the Grantor, on its own behalf as owner of the Servient Lands and on behalf

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of each of its successors in title to the Servient Lands, covenants with the Grantee, as owner of the Dominant Lands and with each of the Grantee's successors in title to the Dominant Lands, that the benefit of the following restrictive covenants shall be annexed to and run with the Dominant Lands and the burden of the following restrictive covenants shall be annexed to and be binding on the Servient Lands:

A. DEFINITIONS

Unless otherwise provided, for the purposes of this Restrictive Covenant the following definitions shall apply:

- (1) **ACCESSORY BUILDING** - means a building separate and subordinate to the principal building, the use of which is incidental to that of the principal building and which is located on the same parcel of land;
- (2) **ACT** - means the Alberta Municipal Government Act, as amended from time to time, together with any legislation which replaces such Act from time to time;
- (3) **BUILDING** - includes any structure that is constructed or placed on or over land;
- (4) **CARPORT** - means a roofed structure used for storing or parking of not more than two private vehicles which has not less than 40% of its total perimeter open and unobstructed;
- (5) **CROWN COVER** - means the percentage of area covered by tree crowns if one were looking at the trees from above;
- (6) **DECK** - means the paved, wooden or hardsurfaced area adjoining a dwelling that is more than 0.61 m (2.0 ft) above grade, used for outdoor living;
- (7) **DWELLING** - means a dwelling intended for occupancy by one household which is constructed on site upon on a permanent foundation and/or basement;

SAMPLE FIRESMART RESTRICTIVE COVENANT

- (8) **FOUNDATION** - means the lower portion of a building, usually concrete or masonry, and includes the footings which transfer the weight of and loads on a building to the ground;
- (9) **GARAGE** - means an accessory building or part of the principal building, designed and used primarily for the storage of motor vehicles;
- (10) **GRADE, BUILDING** - means the ground elevation established for the purpose of regulating the number of storeys and the height of a building. The building grade shall be the level adjacent to the walls of the building if the finished grade is level. If the ground is not entirely level the grade shall be determined by averaging the elevation of the ground for each face of the building;
- (11) **LAND USE BYLAW** - means the Land Use Bylaw of Yellowhead County and amendments thereto, and any subsequent replacement or complementary bylaw of Yellowhead County adopted pursuant to the Act, which is from time to time enacted for the purpose of regulating the use and development of land within Yellowhead County;
- (12) **PATIO** - means the paved, wooden or hardsurfaced area adjoining a dwelling that is no more than 0.61 m (2.0 ft) above grade, used for outdoor living;
- (13) **PRINCIPAL BUILDING** - means, in the case of the Servient Lands, a dwelling which:
 - (a) occupies the major or central portion of a parcel,
 - (b) is the main building among one or more buildings on a parcel, and
 - (c) constitutes by reason of its use the purpose for which a parcel is used;
- (14) **STRUCTURE** - means anything constructed or erected on the ground or attached to something on the ground;

SAMPLE FIRESMART RESTRICTIVE COVENANT

- (15) **UNDERSTORY TREE** - means an immature tree growing under the canopy of a taller tree;

B. GENERAL COVENANTS AND COMPLIANCE

- (1) The provisions of this restrictive covenant as they apply to the Servient Lands:
- (a) do not absolve any owner of the Servient Lands from complying with an easement or other instrument affecting the Servient Lands;
 - (b) do not absolve any owner of the Servient Lands from complying with any federal or provincial legislation or regulation in force from time to time;
 - (c) do not absolve any owner of the Servient Lands from complying with the Land Use Bylaw or any other bylaw of Yellowhead County; and
 - (d) are not intended to conflict with but, rather, be further to those so prescribed for the Servient Lands under the Land Use Bylaw and any statutory plan of Yellowhead County, and any amendments thereto, affecting the Servient Lands.
- (2) Further to Section B(l) above, no development shall be commenced or undertaken on the Servient Lands except as herein provided.

C. PRINCIPAL BUILDINGS

- (1) A dwelling, including any addition or garage or carport attached thereto, as well as covered balcony, deck, porch or patio located or to be located on any parcel within the Servient Lands shall:
- (a) not be constructed using roofing material other than fire-rated fibreglass composition shingles, metal roofing or other similarly fire-rated materials matching or complementary to the colour of the dwelling;

SAMPLE FIRESMART RESTRICTIVE COVENANT

- (c) not be constructed, where applicable, with a roof pitch less than 4:12;
 - (d) not be constructed, where applicable, without cement parging applied to the above-grade portion of the foundation; and,
 - (e) not be improperly or inadequately maintained and shall not be permitted to fall into a state of disrepair.
- (2) The underside of any balcony, deck, porch or patio referred to in Section C(1), shall:
- (a) not be constructed or allowed in any other way to become inaccessible for regular maintenance;
 - (b) not be enclosed with wood latticing; and,
 - (c) not be used to store firewood, kindling and other hazardous or combustible items including but not limited to tires, petroleum products, lawn mowers and gas barbecues.
- (3) If a balcony, deck, porch or patio referred to in Section C(1) is not enclosed by solid walls, in which case Section C(1)(a) would apply, its railings shall:
- (a) not be made of material other than metal (such as aluminum or iron) or painted spindles; and,
 - (b) not be improperly or inadequately maintained and shall not be permitted to fall into a state of disrepair.

D. ACCESSORY BUILDINGS/STRUCTURES

- (1) A detached garage or carport, gazebo or storage building, associated with a dwelling on a parcel within the Servient Lands shall:

SAMPLE FIRESMART RESTRICTIVE COVENANT

- (a) not be constructed, where applicable, using roofing material other than fire-rated fibreglass composition shingles, metal roofing or other similarly fire-rated materials matching or complementary to the colour of the dwelling;
 - (c) not be constructed, where applicable, with a roof pitch less than 4:12;
 - (d) not be constructed, where applicable, without cement parging applied to the above-grade portion of the foundation; and,
 - (e) not be located within 10.0 m (33.0 ft) of the principal building; and,
 - (f) not be improperly or inadequately maintained and shall not be permitted to fall into a state of disrepair.
- (2) Fencing shall:
- (a) not be other than page wire or chain link; and,
 - (b) not be improperly or inadequately maintained and shall not be permitted to fall into a state of disrepair.

E. BUILDING HEIGHT

- (1) A principal or accessory building/structure, as referred to in Sections A through D above, shall not exceed 10.0 m (33.0 ft) above grade.

F. LANDSCAPING

- (1) On any parcel within the Servient Lands, all deadfall and downed trees shall be removed. Said lands are to be kept in this condition.

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G. COMBUSTIBLE STORAGE

- (1) On any parcel within the Servient Lands:
 - (a) firewood, kindling and other hazardous or combustible items including but not limited to tires, petroleum products, lawn mowers and gas barbecues shall not be stored within 10.0 m (33.0 ft) of the principal building.
 - (b) the storage areas referred to in Section G(2)(a) shall not be improperly or inadequately maintained and shall not be permitted to fall into a state of disrepair.

H. GENERAL PROVISIONS

- (1) An owner, lessee or occupant shall not permit any activity or development on any parcel within the Servient Lands that would unduly interfere with the amenities of the neighbourhood or materially interfere with or affect the use, enjoyment or value of neighbouring properties.
- (2) The restrictive covenants set out above are independent and severable from one another. The invalidation of one or more of them shall not invalidate any other restrictive covenant herein set out. The lack of enforcement of one or more of them shall in no way be construed as a waiver of any of the other restrictive covenants.
- (3) Reference to "Dominant Lands" and "Servient Lands" shall be read as including and shall be deemed to include each parcel thereof and each portion of all parcels whenever necessary to give full effect to the provisions contained in this Restrictive Covenant.