## **BY-LAW NUMBER 2018/41**

BY-LAW NO. 2018/41 is a by-law of the County of Wetaskiwin No. 10 in the Province of Alberta, to authorize the adoption of an Area Structure Plan for the purpose of providing a framework for subsequent subdivision and development of Lot 1, Block 1, Plan 0721920, (NW-32-46-24-W4M) in accordance with Section 633 of the Municipal Government Act, Chapter M-26.1, Revised Statutes of Alberta 2000, and amendments thereto.

WHEREAS: at the requirements of County Council, an Area Structure Plan has been prepared for Lot 1, Block 1, Plan 0721920, (NW-32-46-24-W4M).

AND WHEREAS: the proposed Area Structure Plan has been widely circulated and discussed within the County pursuant to Section 230, 606(1), and 633(1) of the Municipal Government Act, 2000, Chapter M26.1, and amendments thereto.

NOW THEREFORE: the County of Wetaskiwin No. 10, duly assembled, hereby enacts as follows:

The document attached to this By-law as "Appendix A", toge ther with accompanying maps, is hereby adopted for Lot 1, Block 1, Plan 0721920, (NW-32-46-24-W4M).

1. This by-law comes into effect on the date of third reading.

READ: A First time August 14, 2018.

READ: A Second time August 14, 2018.

READ: A Third time and finally passed August 14, 2018.

REEVE
SECRETARY-TREASURER

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# County of Wetaskiwin Area Structure Plan for

Lot 1 Block 1 Plan 072 1920, Part of NW 32-46-24-4

Owner: 2088141 Alberta Ltd

**Developer: Matt Steffensen** 

RR 1 Site 6 Box 14 Wetaskiwin, Alberta T9A 1W8

Plan prepared by Robert Riddett Registered Professional Planner, Alberta and NWT rriddett@gmail.com

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## 1 Introduction

This area structure plan (ASP) deals with a 22.65 hectare (55.9 acre) parcel legally described as Lot 1 Block I Plan 072 1920 in NW 32-46-24-4. The location is shown on Map 1. The property lies south of Township Road 470 (the correction line road) and north of Bigstone Creek. It is seven km north-west of Wetaskiwin by paved roads. The landowner proposes to subdivide it into five residential parcels.

This document meets the requirements of County Policy 6605 and section 633 of the Municipal Government Act (MGA) by describing the land, its physical characteristics, neighbouring land uses, proposed zoning and lot layout, and required infrastructure.

## 2 Municipal Policies

Development of the subject land is controlled by the County's municipal development plan (MDP), land use bylaw, and planning policies.

The higher parts of the property, outside the creek valley, are rated 2x by the Canada Land Inventory, and 67% by the County's farmland assessment. Normally, land of this quality would be reserved for agriculture under section 1.2 of the MDP. However, section 2.3.7 of the MDP over-rides this general policy and allows subdivision where council has adopted "comprehensive area-specific planning studies such as the Millet Wetaskiwin Acreage Study". That study, adopted by the County as Bylaw 2004/28, includes the subject land in an area which is, to quote the bylaw, "suitable, in principle, for subdivision into residential acreage lots".

The land is currently zoned Agricultural, so following adoption of this ASP the owner will apply for rezoning to Country Residential.

## 3 Provincial policies

Although land use is a municipal responsibility, the County must also consider provincial regulations set out in provincial legislation, and particularly in the Subdivision and Development Regulation, AR 43/2002.

Sewer lagoons: Residences must be at least 300 metres away from

sewer lagoons.

As shown on Map 1, the closest sewer lagoon is more than 6 km away, on the south side of Millet.

Waste disposal sites: Residences must be at least 300 metres away from

a waste disposal site, and no wells for human consumption must be drilled within 450 metres of

such a site.

Map 1 shows that the closest waste disposal site is the present Wetaskiwin landfill, just over 3 km

south-east.

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Proximity to highways:

A municipality must not approve a residential subdivision within 1,600 metres of a provincial highway without the prior approval of Alberta Transportation (AT).

The closest provincial highway is Highway 2A, reached by travelling east along Township Road 470 (the correction line road). It meets the highway at a Type 2 intersection with acceleration / deceleration lanes. The highway is 2,350 metres away by road, and 1,920 metres overland.

The subdivision proposed in this ASP is therefore not limited by proximity to highways.

A previous subdivision on the same quarter (Dickau, RW/11/22) was approved by the County subject to the condition that the developer contribute to the upgrading of the intersection of the correction line road and Highway 2A. On appeal, the Municipal Government Board struck out this condition on the grounds that "there is no legislative authority to impose a condition requiring the upgrade of the highway" because the land is outside the distance from the highway set out in the subdivision and development regulation (MGB Order 066/11).

Despite this decision, there are other ways in which the County may secure a contribution to upgrading the highway intersection; this is discussed in section 11 below.

Livestock operations:

The Agricultural Operations Practices Act does not allow confined feeding operations close to residences. The minimum separation distance (MDS) depends on the type of operation and its size. The County of Wetaskiwin applies those setbacks reciprocally, and normally does not allow new residences close to confined feeding operations.

A search of the NRCB data base showed no confined feeding operations close enough to affect the proposed lots.

Airports:

The property in question is 5 km from Wetaskiwin Regional Airport. There are also two private strips in the area. They are shown on Map 1. Local pilots confirm that the land in question is not

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under the approach or take-off path of any of these airports.

Under Transport Canada regulations, this is Class G (uncontrolled) air space up to 5,000 feet above sea level, which is about 2,500 feet above local around level.

Sour oil and gas installations: A proposal to build a residence within 1,500 metres

of any sour gas well or pipeline must be referred to

the ERCB for comments.

There are no such installations on or within 1,500

metres of the property.

Other oil and gas installations: Residences are not allowed within 100 metres of a

sweet oil or gas well, or within the right-of-way of a

sweet oil or gas pipeline.

There are no active wells or pipelines on the property. The closest is 1,250 metres north in NW

4-47-24-4.

Abandoned wells: ABADATA maps show no abandoned oil or gas

wells on the property. The closest is 716 metres

north-west in SE 5-47-24-4.

Watercourses: The Crown claims ownership of all land covered by

permanent water bodies. The bed and shore of Bigstone Creek will therefore be surveyed out of the lots created by the proposed subdivision.

Historical resources The property is not listed as a site of interest on the

department's Listing of Historic Resources.

Nevertheless, the Alberta Historical Resources

Management Branch (HRMB) has the right to
require a historical or archaeological assessment

before land is developed.

In a letter dated 6 April 2018, their file 4835-0031-001, HRMB gave approval and stated that no site

investigation is required.

In summary, there are no senior government policies preventing residential development on the property.

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## 4 Other affected municipalities

The closest urban municipalities are the City of Wetaskiwin and the Town of Millet. The land proposed for development is well beyond the one mile referral areas set out in the County's MDP, and is also outside the area covered by the City / County IDP.

#### 5 Present and former use of the land

To the best of the owner's knowledge, the land has never been used for any activity which might have contaminated the soil or groundwater. This has been confirmed by air photography going back to the 1960s held by WCPA. Consequently, there is no need to undertake an environmental assessment of the property before proceeding to subdivision.

## 6 Possible conflicting land uses

Map 2 shows the land uses in the immediate neighbourhood. Uses are limited to agriculture and residences. There are no confined feeding operations. It does not appear that there will be any conflicts between existing uses and the five new lots being proposed.

## 7 Slope and drainage

Map 4 shows contours at one metre vertical interval, with two shallow drainage courses indicated by arrows.

The main feature is the valley of Bigstone Creek, which is incised up to five metres into the land surface. In some places there are steep banks with a gradient as high as twenty per cent. In other places the valley is wider, and gradients are only about two per cent. The creek drops about three metres as it crosses the property from west to east.

The design proposed on Map 6 takes into account the need to have building sites a safe distance back from the top of slope.

Building sites must also be above flood level. Map 4 shows the land less than two metres above normal creek level. The design shown on Map 6 gives a higher margin of safety by ensuring that all lots have building sites at least three metres above the normal creek level.

#### 8 Near Surface Water Table

Alberta Environment requires that a residential lot has a building site which is at least 1.8 metres (6 feet) above the standing water table during the frost-free part of the year, and 2.4 metres (8 feet) during the remainder of the year.

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Five test holes were drilled to a minimum of 2.4 metres on 11 May 2018. Locations are shown on Map 4. All holes were dry when examined the following day. The proposed building sites therefore meet Alberta Environment guidelines.

## 9 Proposed design

A design for five residential lots is shown on Map 6.

Although every lot has a building site which is well back from the edge of the valley, the main attraction of the lots will be their view over the creek, and owners may wish to build close to the top of the slope. This may raise questions about bank stability. There are two ways this can be handled.

The first is to rely on the bylaw requirement that all buildings must be set back at least 30 metres from any slope with a gradient of 1:3 or more The development officer has the power to relax the setback if it appears safe to do so, but before granting a relaxation he may require a professional engineer to certify that the building site is safe.

A stronger protection is to register an instrument on the title of each lot, in a form acceptable to the County, warning buyers of the possibility of slope failure close to the top of slope, and requiring them to have a foundation plan prepared by a professional engineer and to submit it with any application for a development or building permit for a location closer than 30 metres to the top of the slope. The County did this when it approved the Von Platen subdivision overlooking the banks of Coal Lake (County file RW/01/57). The development agreement used in that case can be a model here.

The design uses contours taken from the Ruby Hills ASP. They appear to have been simplified and may not be completely reliable, so the location of the top of slope and the elevations of building sites must be confirmed by an Alberta Land Surveyor at the time of subdivision. The surveyor may also make minor changes to lot boundaries to take account of features on the ground such as the locations of tree stands.

The need to provide safe building sites well back from the edge of the valley means that the lots must be larger than the normal five acre maximum set out in the County's land use bylaw. The developer therefore requests that council waive the five acre maximum lot size set out in the land use bylaw.

## 10 Access from municipal roads

No internal roads are proposed. All lots will have direct access to the existing municipal roads. These approaches may be individual, or shared; that will be at the discretion of the County's Director of Public Works.

## 11 Off-site road improvements

**Right of way:** Many correction line roads vary in width because this is where the original township survey discrepancies were laid to rest. TR 470 is no exception. It varies in width from 24.1 metres at the west end of the quarter to 22.7 metres at the east

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end. This will be increased by another five metres when subdivision RW/16/24 (Wright) is registered. If required by the County, the developer is willing to dedicate another five metres along the south side of the township road.

Range Road 245, on the west side of the property, now has a 20 metre right-of-way. In accordance with standard municipal policy, five metres of road widening will be dedicated here.

Road widening will be dedicated at no cost to the County.

**Surface:** TR 470 is paved and needs no upgrading. The range road has a gravel surface, but the low traffic volume (just two additional lots) does not justify any upgrades.

**Financial contributions:** The correction line road was recently paved at the County's expense west to Highway 2. County Policy 6615 recaptures such costs from developers by requiring a payment of \$2,000 per lot at the time of subdivision. This amount may be adjusted from time to time. The developer will make the appropriate payment at the time of subdivision.

**Highway 2A intersection:** The County has identified the intersection of TR 470 and Highway 2A as requiring upgrading to take an expected increased in traffic arising from, among other things, new residential subdivisions.

The Municipal Government Act gives the County the ability to require a money contribution if a subdivision or development causes a need for "new or expanded transportation infrastructure required to connect, or improve the connection of, municipal roads to provincial highways" where that need results from that subdivision or development (MGA section 648(2)(c.2)). The improvement of the Highway 2A intersection would appear to meet that test.

The process is set out in AR 187/2017, the Offsite Levies Regulation. The amount of money required must be set out in an off-site levy bylaw. It must be based on estimated costs, and the bylaw must include a mechanism for apportioning the costs "on an equitable basis related to the degree of benefit" (section 3(3)).

If such a bylaw is passed by the County, the developer will of course pay his fair share.

## 12 Municipal Reserves

When land is subdivided into multiple lots, the municipality has the right to take ownership of all undevelopable land as environmental reserve, and up to 10% of the developable land as municipal reserve (Municipal Government Act, ss 664 and 665).

#### **EITHER**

#### Design A: Dedication of Environmental Reserve

The steep valley sides and the land subject to flooding are clearly undevelopable within the meaning of the Act, so it will be dedicated as environmental reserve, with an additional ten metres on the level land at the top of the slope.

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There is currently a house under construction on proposed Lot 1. If necessary the ER boundary will be moved south around the house in order to give the five metre rear yard setback required by the land use bylaw.

The total area to be dedicated as ER will be approximately 5.2 hectares or 12.8 acres. This is about 23% of the total title area. About two acres is on level land above the valley, which can be developed as a walking trail.

Because the ER land has recreational value, the developer requests that the County waive any requirement for municipal reserve, as it has in similar cases elsewhere.

#### OR

#### Design B: Dedication of Environmental Reserve Easements

Environmental reserve land is not cost-free to the municipality. It has to be maintained so it does not become a fire hazard. It is legally open to all, so there may be problems with abuse, and this can expose the County to legal liability.

The MGA implicitly recognizes these problems and gives municipalities an alternative way of protecting sensitive areas. Instead of taking full ownership, municipalities may register an environmental reserve easement which limits the use of the land, requiring it to be left in its natural state. Easements are allowed by section 661(2) of the MGA and under Policy 3.1.7 of the County's MDP. They run with the title and are binding on future owners. They have worked very well around Battle Lake and Coal Lake. In the immediate area, easements were registered instead of taking land half a mile further downstream along the Bigstone Creek in SE 4-47-24-4 (Plan 032 3706, County file RW/02/47).

The developer proposes to do the same here. The approximate northern and western limits of the area to be protected are shown on Map 6 by a dashed red line. It is ten metres back from the top of slope. This is greater than the 25 feet or 7.6 metre setback in the Ganske subdivision, immediately downstream. The total area subject to an ER easement is 5.37 hectares or 13.3 acres. That is 24% of the present title area.

There is currently a house under construction on proposed Lot 1. If necessary the easement boundary will be moved south in order to give adequate setback for maintenance purposes.

Environmental reserve applies only to undevelopable land. Additionally, the municipality may require that up to 10% of the developable land be dedicated as municipal reserve. In this case the developable land amounts to about 18 hectares (44 acres), which creates an obligation for 4.4 acres as municipal reserve. The MGA requires that this be used for parks, schools, and buffer strips separating different land uses.

There does not seem to be any need for parks or schools in this area, so the developer proposes to pay out reserves in cash at the rate set out in County Policy 6602. Section 671(2) of the MGA requires that this money is used only for parks, schools, and buffer strips elsewhere in the municipality.

(Council to delete one of these options following the public hearing)

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## 13 Controls on Building Quality and Land Use

Country Residential zoning allows a wide range of building styles and quality. This has given rise to conflicts in some other subdivisions. With the consent of the County, the developer will avoid this by registering restrictive covenants on the titles of all lots, setting out standards for building size, quality, and maintenance, limiting livestock, and requiring proper maintenance of buildings and land.

Because the County will not be a party to these covenants, it will not be expected or required to enforce them; that will be done by individual lot owners through civil action.

## 14 Water Supply

Each lot will have an individual well. As there will be more than six lots on the quarter section, the Water Act requires the developer to provide a report by a professional engineer, geologist, or geophysicist, certifying that a diversion of 1,250 cubic metres of water per year (754 gallons per day) for household purposes for each of the lots within the subdivision will not interfere with any existing household uses, licensees, or traditional agricultural users.

Emily Lowe, P. Eng., of Envirowest Engineering was engaged to analyze the availability of groundwater. Envirowest's report was based on an analysis of 53 well logs in the surrounding area. They also had access to pump tests undertaken for the proposed Ruby Hills subdivision.

Envirowest's report concludes that

The estimated water use for the proposed development is 6,250 m3/yr based on the predicted withdrawal rate of 1,250 cubic metres per household per year. This withdrawal rate represents 6 per cent of the long term safe pump rate for wells in close proximity. The long term safe pump rate is the one which would unlikely impact water resources in the area and was based on a conservative estimate of 2/3 of the drawdown of the well being available for exploitation. An additional factor of 0.7 was applied to the safe withdrawal rate.

It is concluded that adequate water resources likely exist in the area of the proposed development. The predicted water withdrawal rate is not expected to adversely impact water quantity in wells in close proximity to the site.

It should be noted that Envirowest's analysis is based on every household drawing 1,250 cubic metres of water per year, as stipulated in the Water Act. EPCOR, the City of Edmonton's water utility, says a typical metered household uses only 222 cubic metres of water per year, less than one-fifth of the amount quoted in the Act. This provides another large margin of safety.

The engineer's report has been forwarded to the County under separate cover.

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## 15 Sewage Treatment

The Alberta Private Sewer Systems Standard of Practice regulates the location and construction of self contained sewage disposal systems.

First, the lot must have an area of 1,850 m2 or about half an acre. The smallest lot in the subdivision will be approximately 36,600 square metres. This is more than 19 times the minimum.

Second, any holding tank must be at least 10 metres and any disposal field must be at least 15 metres from any watercourse. All lots have building sites well beyond those distances.

Third, any disposal field must be at least 1.5 metres above the water table and no more than 0.9 metres below ground, which means the water table must be at least 2.4 metres below ground. The test holes noted in section 8 all showed this to be the case at the likely building sites.

All sewer systems will be constructed in compliance with the Alberta safety codes, and sites will be individually tested by a licensed plumbing installer prior to construction of the sewer system.

In the event that any lot uses a pump-and-haul system for sewage disposal, that lot will be required to pay any off-site levy in effect at that time. The levy is due at the time of construction.

## 16 Storm Water Management

Development increases the amount and intensity of runoff from snow melt and heavy rainfall, and this can damage downstream watercourses. Alberta Environment therefore requires that the rate of runoff be restricted so that it is no higher than it was before development. Section 7.1 of the County of Wetaskiwin's engineering design guidelines has a similar requirement. The reduction in flow rates is achieved by running the water into a storage pond and releasing it slowly through a small diameter pipe.

In this case the hard surfaced area will be very low. It is estimated at:

House and outbuildings	300 m2	per lot
200m driveway 3m wide	600 m2	per lot
Parking area	200 m2	per lot
Total	1,100 m2	per lot

Eleven hundred square metres per lot, times five lots, means a total of 5,500 m2 or just under one and a half acres of hard surface in total. This is less than three per cent of the area of the property, so small as to have no significant impact of the volume of runoff. For that reason, no storm water pond is proposed.

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#### 17 Fire Protection

The County requires that rural subdivisions have a supply of water for fire protection. Normally a fire pond is constructed on site, but the slope of the land does not allow this. As noted in section 7, the creek is too deeply incised to be accessible, and the local water table is too low to fill a pond by percolation from groundwater. The developer therefore proposes three alternatives.

- The most reliable source of water is a fire hydrant connected to a municipal system. In this case the closest hydrants are in Wetaskiwin (8 km by road) and Millet (11 km). The County has mutual aid agreements with both places.
- A second possibility is to use the fire pond planned for the Wright subdivision in SW 4-47-24-4, on the north side of TR 470. In that case the developer is willing to reimburse the developer of SW 4 for part of his costs.

The choice between these alternatives will be made by the County's Director of Emergency Services.

## 18 Staging of development

The developer may create the subdivision in stages. In that case, all road widening will be dedicated immediately, but off-site road fees and cash in lieu of reserves will be paid when each lot is created.

## 19 Subsequent changes to County policies

Should development not be started within one year of the adoption of this ASP, development will be subject to any County policy then in force, and per-lot fees and levies will be paid at then-current rates.

## 20 Request for Approval

The landowner requests the County to adopt this area structure plan by bylaw. Once that is done, he will apply for Country Residential zoning on the property, and then submit an application for subdivision approval.

## 21 Expiry

If not acted upon, this ASP expires two years after it is adopted by bylaw.

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## Appendix: Issues raised at the open house

The owners of 55 parcels of land shown on Map 7 were invited to an open house on site on 7 June 2018 to discuss these proposals. The invitation was mailed out by County staff, and noted that advance copies of the draft ASP were available by email from the developer's consultant.

Fourteen people attended the open house. They included the owners of three abutting parcels to the south, south-east, and east. Their comments and questions may be summarized as follows.

#### Water supply: Is there enough water to supply an extra five households?

The developer noted that he had engaged a professional hydrogeologist to evaluate the local groundwater, and she had concluded that there was ample water, even if the Ruby Hills subdivision went ahead.

#### Sewage treatment:: what system will be used?

One neighbour was concerned that open discharge systems would be used, and this could contaminate the creek.

The provincial plumbing code does not allow above-ground discharge where there are more than four subdivided lots on a quarter section, so houses will use a septic tanks and field system. Tests on site (noted in section 8) show that the water table is far enough below ground to allow this. The fields will be sized and located following percolation tests by the installer following the plumbing code.

#### Slope stability: is it safe to build close to the creek valley?

Another neighbour wanted assurance that houses would not be built where they could collapse into the creek.

The developer pointed to section 9 of the ASP, which discusses this issue. Those present agreed that the best solution was to register a development agreement on the title of each lot, requiring an engineer's report if a house was to be built closer than 100 feet to the top of slope.

#### Protection of the creek valley

There was concern that the trees along the creek might be cut down.

The developer said that the natural vegetation would be protected by registering an environmental reserve easement on all land in and within 10 metres of the top of the creek valley.

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One neighbour commented that this required the County to enforce the easement, but another said she had been impressed with the way the County had enforced the easement in her subdivision, half a mile downstream.

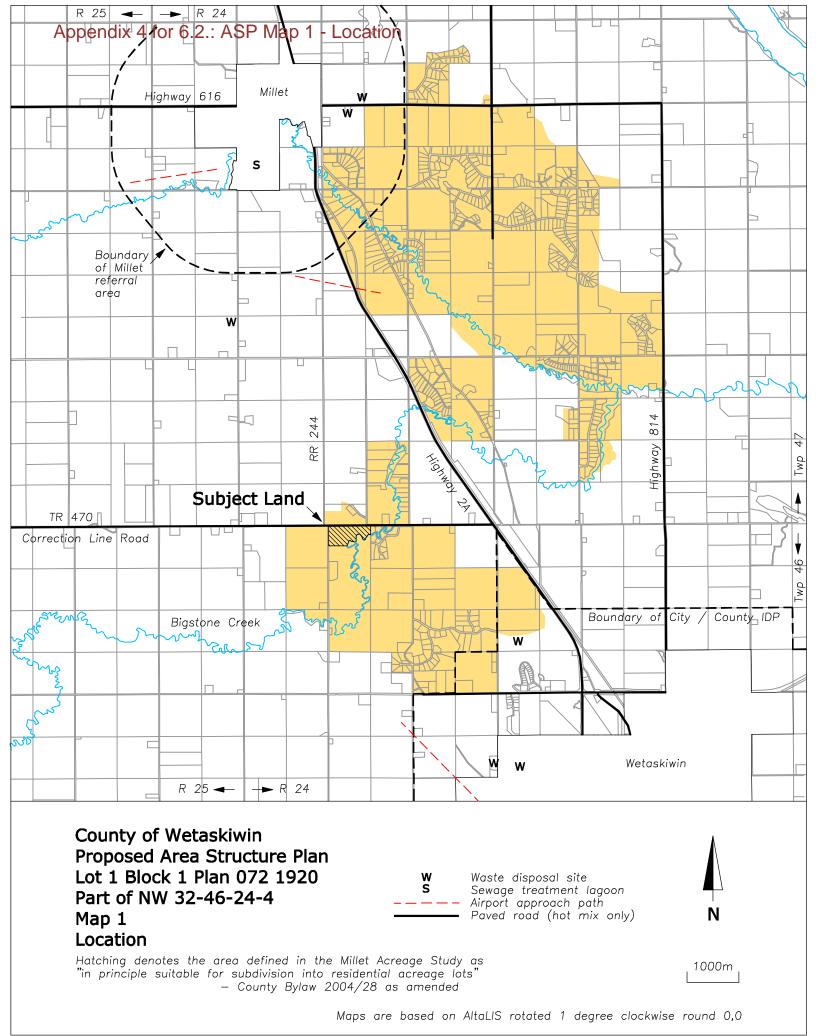
#### Land use controls

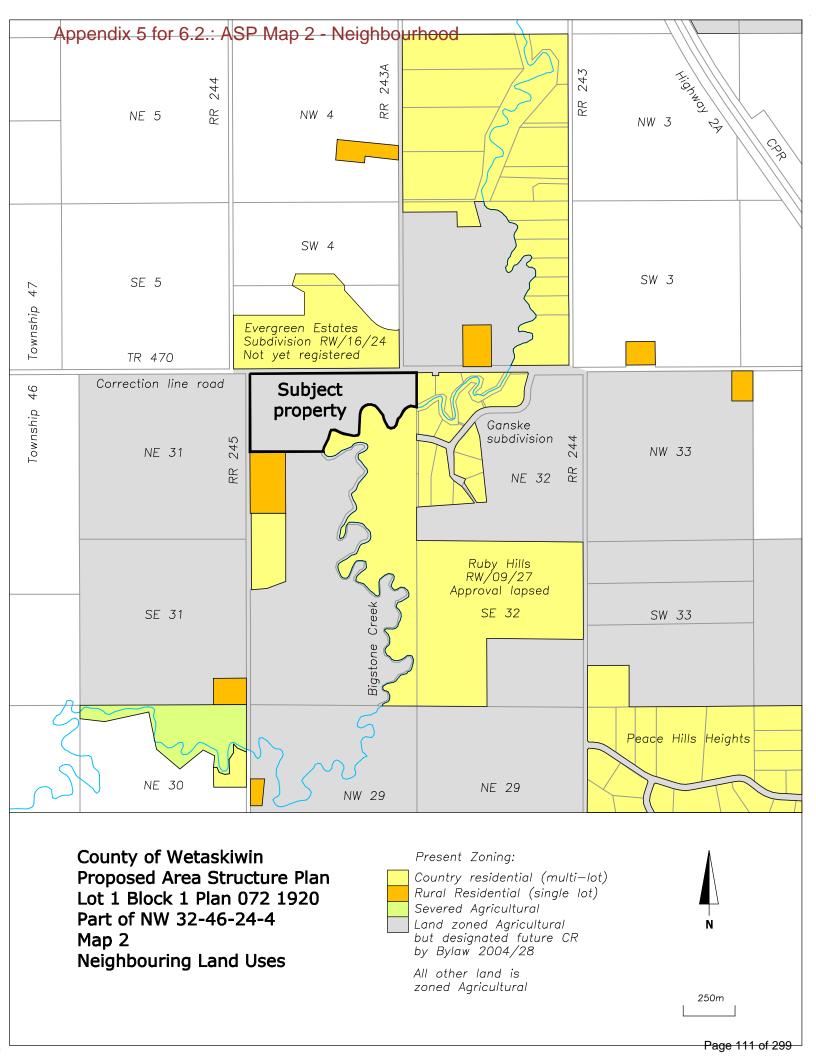
One person asked how the use of the land would be controlled. The developer said he planned to live on Lot 1 and he shared the neighbours' concern that it become a high quality development. He would achieve this by registering restrictive covenants on each property.

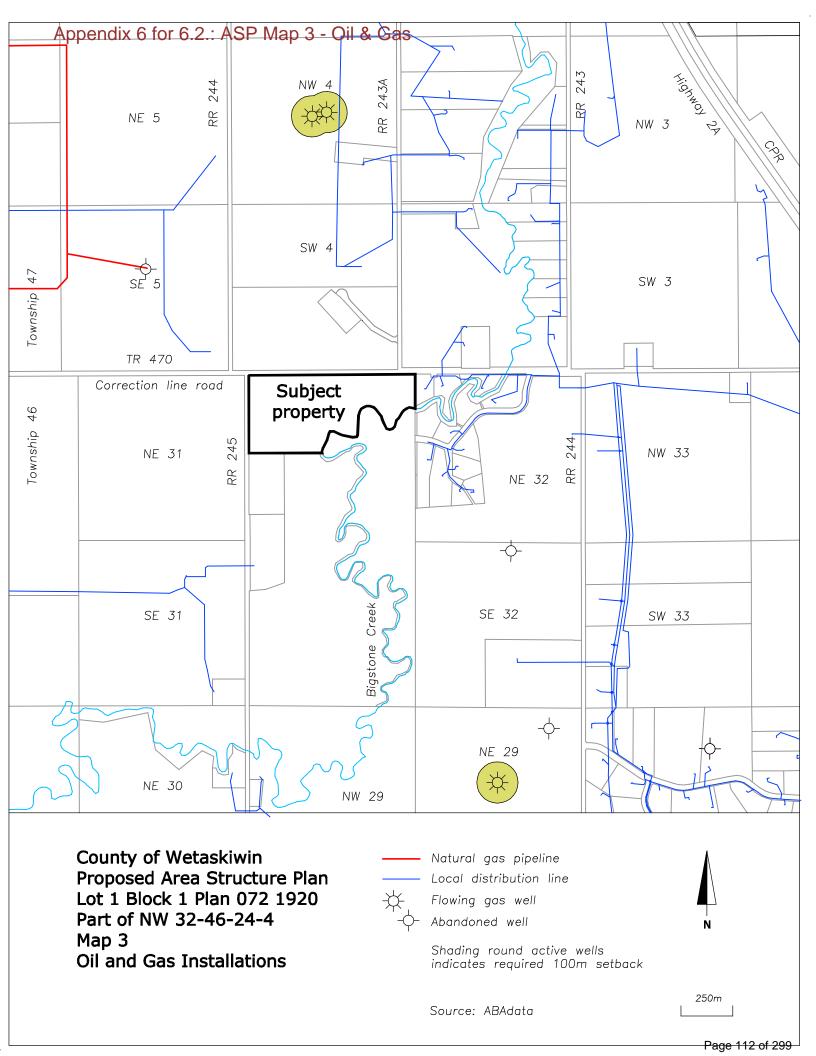
The questioner said she was aware of covenants which had lapsed because they had been registered by the original developer, who was long gone. The developer said he planned to make the covenants mutually enforceable so that the owners of any lot would be able to enforce against any other lot.

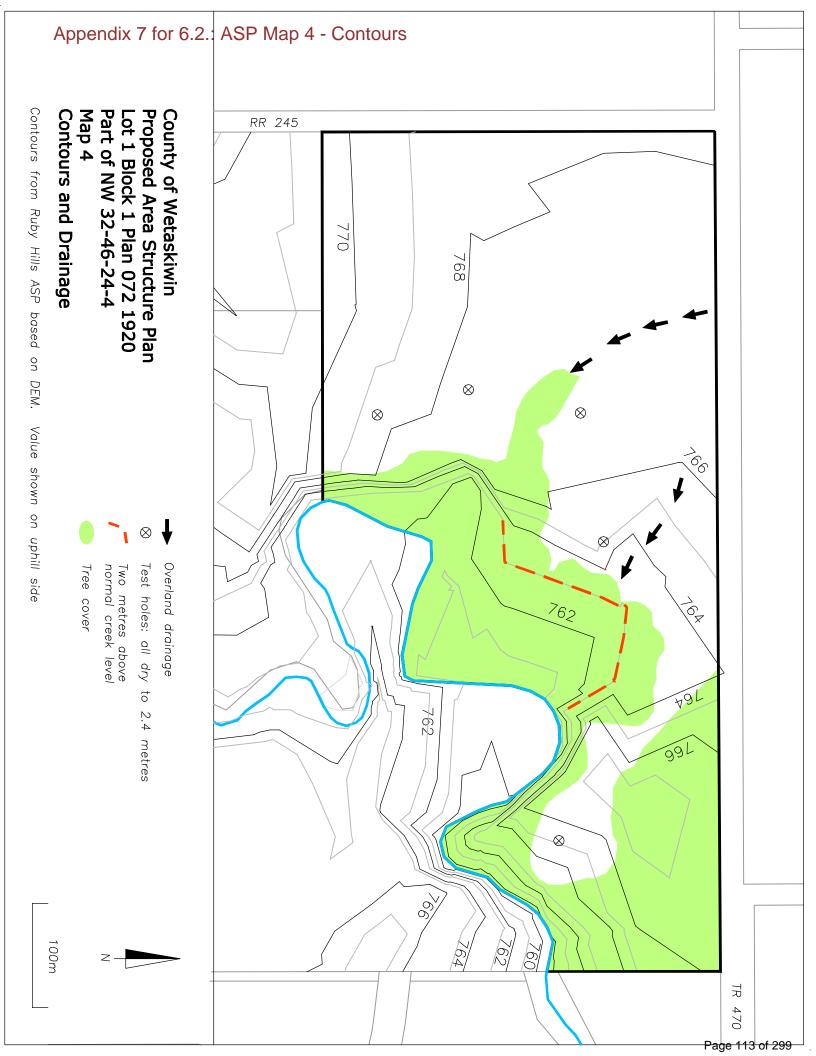
#### Density of development

All those in attendance liked the size of the proposed lots, and thought this would make a more attractive subdivision than a high density development like Ruby Hills.

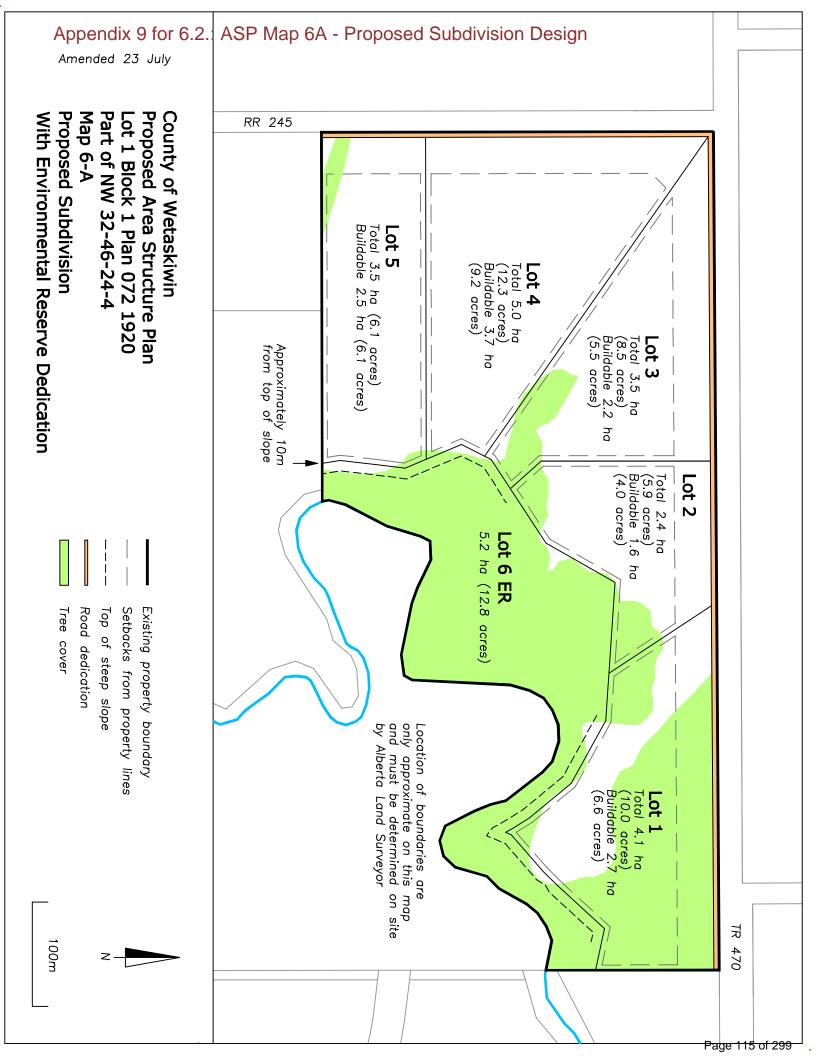


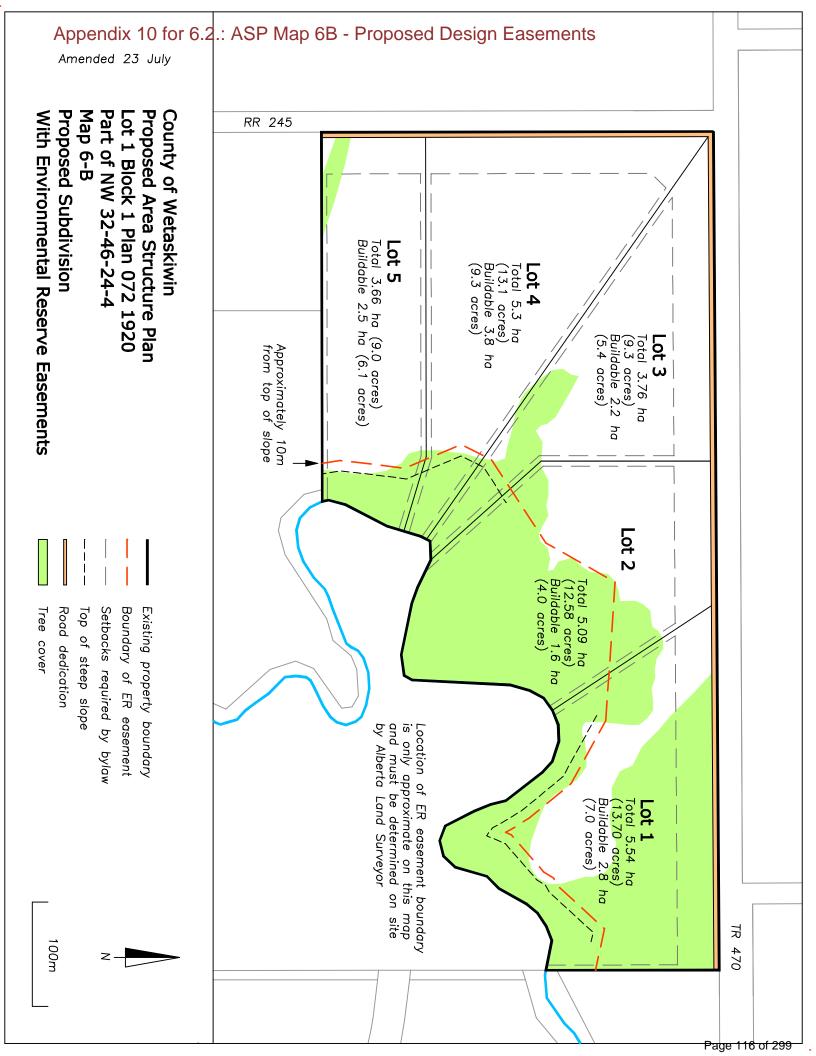


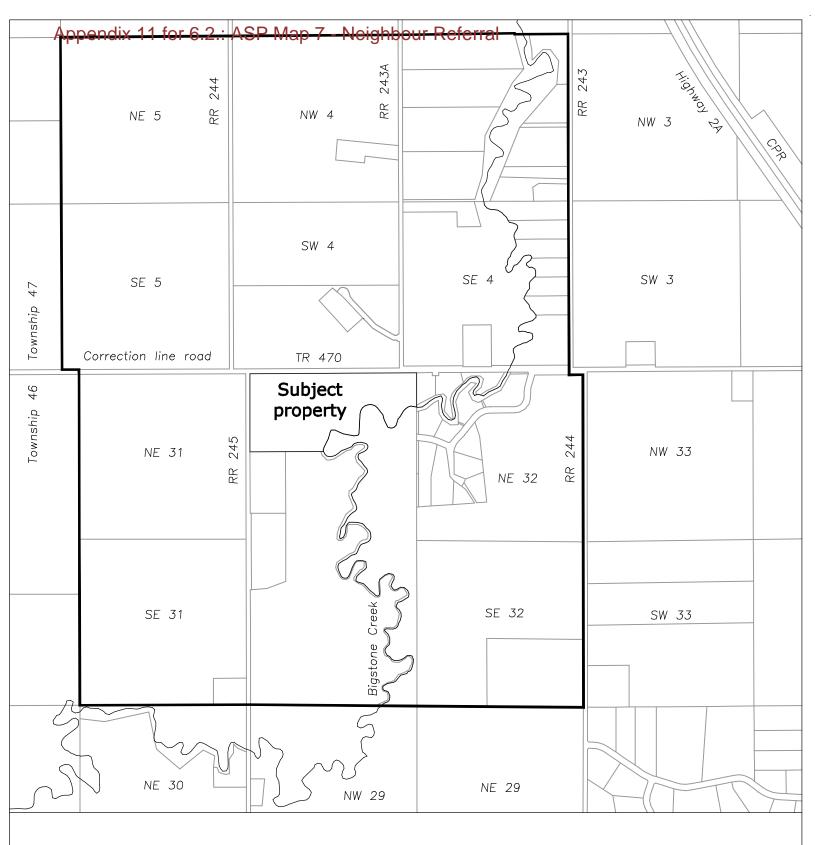




Appendix 8 for 6.2 : ASP Map 5 - Recent Air Photo County of Wetaskiwin
Proposed Area Structure Plan
Lot 1 Block 1 Plan 072 1920
Part of NW 32-46-24-4
Map 5 Recent Air Photograph RR 245 Existing property boundary TR 470







County of Wetaskiwin Proposed Area Structure Plan Lot 1 Block 1 Plan 072 1920 Part of NW 32-46-24-4 Map 7 Referral Area

The owners of all land inside the heavy line were invited to an open house to discuss the proposed subdivision on NW 32-46-24-4



250m