



# **DELACOUR COMMUNITY**

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## **AREA STRUCTURE PLAN**



Bylaw C-6122-2005, Adopted September, 13, 2005

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**MUNICIPAL DISTRICT OF ROCKY VIEW NO. 44**  
**Department of Planning and Community Services**

## **MUNICIPAL DISTRICT OF ROCKY VIEW NO. 44**

### **BYLAW C-6122-2005**

A Bylaw of the Municipal District of Rocky View No. 44 to adopt an Area Structure Plan pursuant to Section 633 of the Municipal Government Act.

**WHEREAS** the Council of the Municipal District of Rocky View No. 44 wishes to adopt the Area Structure Plan affecting the lands as shown on Schedule "A", known also as the Delacour Community Area Structure Plan, attached hereto and forming part of this bylaw; and

**WHEREAS** a notice was published on Tuesday, August 9, 2005 and Tuesday, August 16, 2005 in the Rocky View Weekly, a newspaper circulating in the Municipal District of Rocky View No. 44, advising of the Public Hearing for Tuesday, September 13, 2005; and

**WHEREAS** Council held a Public Hearing and have given consideration to the representations made to it in accordance with Section 692 of the Municipal Government Act, being Chapter M-26 of the Revised Statutes of Alberta, 2000, and all amendments thereto.

**NOW THEREFORE** the Council enacts the following:

1. That the Area Structure Plan be adopted to provide a framework for subsequent land use changes, subdivision and development for the lands as shown on Schedule "A", known also as the Delacour Community Area Structure Plan, attached to and forming part of this bylaw.
2. That this Bylaw shall come into effect upon the date of third and final reading.

### **DIVISION 5**

**File: 616-16 -- 2004-RV-052**

First reading passed in open Council, assembled in the City of Calgary, in the Province of Alberta, this Tuesday, July 26, 2005, on a motion by Councillor Habberfield.

Second reading passed in open Council, assembled in the City of Calgary, in the Province of Alberta, this Tuesday, September 13, 2005, on a motion by a recorded vote.

Third reading passed in open Council, assembled in the City of Calgary, in the Province of Alberta, this Tuesday, September 13, 2005, on a motion by Councillor Habberfield.

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REEVE OR DEPUTY REEVE

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MUNICIPAL SECRETARY

# **DELACOUR COMMUNITY AREA STRUCTURE PLAN**

Schedule “A” to Bylaw C – 6122-2005

This document is an office consolidation. The original Bylaw may be viewed at the Administration Office of the Municipal District of Rocky View No. 44 and should be consulted for all purposes of interpreting and applying this Bylaw.

September 2005

**ROCKY VIEW COUNTY  
BYLAW C-6122-2005**

**OFFICE CONSOLIDATION**

This document has been consolidated for convenience only. A copy of the original Bylaw and all amending Bylaws can be obtained from Rocky View County. This office consolidation comprises the following Bylaws:

<b>Bylaw</b>	<b>Amendment Type</b>	<b>Date of Approval</b>
C-6122-2005	Original Bylaw	September 13, 2005
C-7834-2018	Replace Figure 3	December 11, 2018

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## **1.0 INTRODUCTION**

The Delacour Community Plan Area (Plan Area) is located approximately ten kilometres east of the City of Calgary at the intersection of provincial Highway 564 and Highway 791. The Plan Area contains the Hamlet of Delacour, a golf course, a portion of the Western Irrigation District Canal system, small rural businesses (i.e., horse boarding, welding), large scale agricultural operators, an actively used girl guide hall, a large and well maintained community hall, and various sizes of residential and agricultural holding parcels.

The Hamlet of Delacour (Hamlet) is a historical Hamlet within the Municipal District of Rocky View (MD). An original railway settlement, its origins date back to 1914. At one time this Hamlet contained a post office, grocery store, railway station and grain elevators. In recent history, the growth of the Hamlet has been minimal. Presently, the Hamlet contains only a few houses with no business or local service commercial uses.

The last Municipal Census conducted in the year 2000 recorded eight people residing in four residences in the Hamlet. Recently, however, interest has been expressed within the existing community to prepare a plan and define the type of future growth within the existing Hamlet, possible expansion opportunities and growth in the surrounding community.

The purpose of the Area Structure Plan will be to act upon the community aspirations to an independently prepared document, representing all landowners, range of land uses, and identifying the opportunities and constraints for future growth and development within the Plan Area. The Plan Area location is identified on **Figure 1**.



*Delacour Hall*





## 2.0 AREA STRUCTURE PLAN PROCESS

### 2.1 Provincial Legislation

The Delacour Community Area Structure Plan (ASP) has been prepared pursuant to provincial legislation. The Plan is more detailed than the MD of Rocky View's Municipal Development Plan (MDP), and is intended to provide a framework for subdivision and development within the Plan Area.

In accordance with Part 17 of the Municipal Government Act (MGA), the Council of a Municipality may, by by-law, adopt the Plan as a statutory document.

The Delacour Community ASP has been prepared in accordance with provincial requirements outlined in s.633 (1) of the *Municipal Government Act (MGA) (Revised Statutes of Alberta, 2000, Chapter M-26)*.

633(1) *For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may, by bylaw, adopt an area structure plan.*

(2) *An area structure plan*

(a) *must describe*

(i) *the sequence of development proposed for the area,*

(ii) *the land uses proposed for the area, either generally or with respect to specific parts of the area,*

(iii) *the density of population proposed for the area either generally or with respect to specific parts of the area, and*

(iv) *the general location of major transportation routes and public utilities,*

*and*

(b) *may contain any other matters the council considers necessary.*

Section 622 of the Municipal Government Act requires consistency with the Land Use Policies established by the Lieutenant Governor in Council.

In addition, a Hamlet, in order to be provincially recognized, and as defined in Section 59(1) of the MGA in the Province of Alberta

59(1) *An unincorporated community may be designated a hamlet if the community*

(a) *consists of 5 or more buildings used as dwellings, a majority of which are on parcels of land smaller than 1850 square metres,*

(b) *has a generally accepted boundary and name, and*

- (c) *contains parcels of land that are used for non-residential purposes (commercial, recreational, public service, industrial)."*

The Hamlet of Delacour is not a provincially recognized hamlet by virtue of the requirements as defined above. Should the Hamlet of Delacour grow, in accordance with this plan, a formal process would be required for hamlet recognition at the provincial level.

## **2.2 Municipal Land Use Policies**

In addition to compliance with provincial legislation, an Area Structure Plan must comply with the broader objectives of the Municipal District of Rocky View's Municipal Development Plan and Land Use Bylaw.

The Municipal Development Plan states that Hamlets are:

*" an integral part of the Municipal settlement pattern, and serve as a community focus for the rural residents ..." and that they "... maintain their status as service centers with the potential to offer a wide range of community facilities for surrounding residents..."*

Specific objectives for the Delacour Community Area Structure Plan were identified by the MD of Rocky View as follows:

- 1) To describe existing development and conduct a baseline assessment of the present development opportunities and constraints.
- 2) To establish a future land use scenario and development pattern within the existing Hamlet satisfying the Hamlet requirements as stipulated by the Province of Alberta and identify future growth options outside the Hamlet having regard for existing development opportunities and constraints and possible Hamlet expansion. Phasing of development and interface mitigation should be included.
- 3) To establish an access management plan in concert with the existing transportation infrastructure network and policies addressing short and long-term Municipal and Provincial transportation requirements within the Plan Area.
- 4) To establish land use policies that support future utility infrastructure needs within the study area.
- 5) Meet with the intent of the Municipal Development Plan for hamlets within the Municipal District of Rocky View as it pertains to its status as a service centre with potential to offer a wide range of community facilities.

## **2.3 Community Consultation**

An Area Structure Plan can only be successful if it is truly reflective of the vision and values of the community it reflects. The Municipal District of Rocky View appointed a Steering Committee to consult with during the preparation of the ASP. The Steering Committee consisted of:

- Steph Brundige, Chairperson
- Doug McIntosh, Vice-chair
- Ken Akins
- Don Demers
- Brian Orr
- Prior to October 18<sup>th</sup> 2004, Council Representative Mr. Robert Cameron
- Lorie Pesowski, Long Range Planning Co-ordinator, MD of Rocky View

In the course of preparing this plan, three Open Houses were held with opportunities for the community at large to provide comments and feedback.

In addition, a statutory public hearing was held on September 13, 2005 where the Delacour Community Area Structure Plan was adopted by Bylaw # 6122-2005.

## **3.0 OVERALL GUIDING PRINCIPLES**

In order to accomplish the proposed goals and objectives for the Delacour Community ASP a conceptual approach was utilized incorporating a number of elements.

### **3.1 Guiding Principles**

- Understanding - the planning process must be based on a thorough understanding of the Delacour community - its past, present and future. The area landowners' and Steering Committees' "vision of future development" must be thoroughly understood. At the same time, the growth and development objectives of the MD of Rocky View No. 44 must also be clearly understood.
- Integration - the ASP involves integration of a complex range of planning documents, factors and interests. Importance is placed on commercial, industrial, residential and environmental concerns within the Plan Area. There is a need to integrate the objectives of the area landowners into the

planning document. Consequently, the approach is structured to include an integrated group of landowners, other stakeholders and professionals to ensure all factors affecting the future planning and development of the Plan Area are considered.

- Ownership - the Delacour Community ASP is a statutory Municipal document, administered and implemented by the MD of Rocky View No. 44. However, for the Area Structure Plan to be truly effective residents and other stakeholders must accept "ownership" of the plan. For this to occur, all affected stakeholders were actively involved throughout the Plan preparation process.
- Straightforward - a complex project requires a clear, straightforward and well-organised approach. The method for achieving the ASP for the Delacour area must be clear, concise, community-friendly, and above all, practical, implementable and affordable.
- Local expertise - in many areas, the extensive local knowledge and experience of MD of Rocky View staff, area landowners and committee members will exceed that of the consultant. The ASP preparation process will take full advantage of these sources of expertise.
- Stakeholder consultation - the ASP will affect, and be of interest to, not only Delacour community landowners, but also surrounding landowners and others with a range of interests in the Delacour area. Consequently, the ASP preparation process provided a variety of opportunities for stakeholders to be involved and contribute to the final ASP.
- Vision - the Delacour ASP preparation is based on a "vision statement" that was developed and adopted by the Steering Committee and further refined by Delacour area landowners.
- Dynamic and Accessible - the Steering Committee recognises that the ASP must serve as a dynamic and effective tool for a wide range of interests within the Plan Area. Consequently, the resultant ASP is in a form that is readily understood and accessible.

### **3.2 Plan Area Vision**

After receiving input from Open House #1, the Steering Committee developed a vision statement for the Plan Area. During the course of preparing the Area Structure Plan, the vision was clarified with the community and it is intended to provide direction for all present and future policy development. The vision statement for the Delacour Community Area Structure Plan is:

***The Delacour Community Plan Area is a place where people live and play in a rural setting. Future land uses are to be designed in concert with the historical Hamlet. Delacour offers a well-balanced community with residential, recreational, and business opportunities that respect agricultural values.***

Our vision includes:

- expansion of the Hamlet of Delacour;
- a residential and agricultural community;
- rural business development to serve the needs of the local community; and
- integration of opportunities to live and play.

### **3.3 Principles of Development**

The major objectives for future development within the Plan Area are as follows:

- 1) To ensure all development is in accordance with current statutory policy, provincial, and Municipal standards.
- 2) To provide for residential land use in a manner which is sensitive to the rural surroundings and environment.
- 3) To provide a high quality of design and development for all components of the Plan Area including residential and recreational uses and method of servicing.
- 4) Address standards of servicing that, in the long-term, are environmentally sustainable.
- 5) Encourage recreational development that is compatible with the surrounding development and takes advantage of natural physical features and large areas of land.
- 6) To provide, where appropriate, recreational and residential uses within the Plan Area.
- 7) To protect any significant historic sites in the Plan Area.
- 8) To ensure the provision of Municipal reserve.
- 9) To establish future highway requirements that will provide for the safe and efficient movement of traffic in accordance with the long-term goals of Alberta Transportation.
- 10) To provide a high level of services which will not detrimentally affect

adjacent and downstream communities.

- 11) To develop an efficient internal roadway system.
- 12) To address future development in a logical and efficient manner.
- 13) To ensure that environmental reserve dedication is provided on lands that qualify in accordance with the Municipal District of Rocky View No. 44.
- 14) To allow the utilization of such environmental areas for public and private outdoor recreational activities such as walking, hiking, wildlife viewing and scenic view appreciation.



## **4.0 ANALYSIS OF EXISTING AND FUTURE DEVELOPMENT**

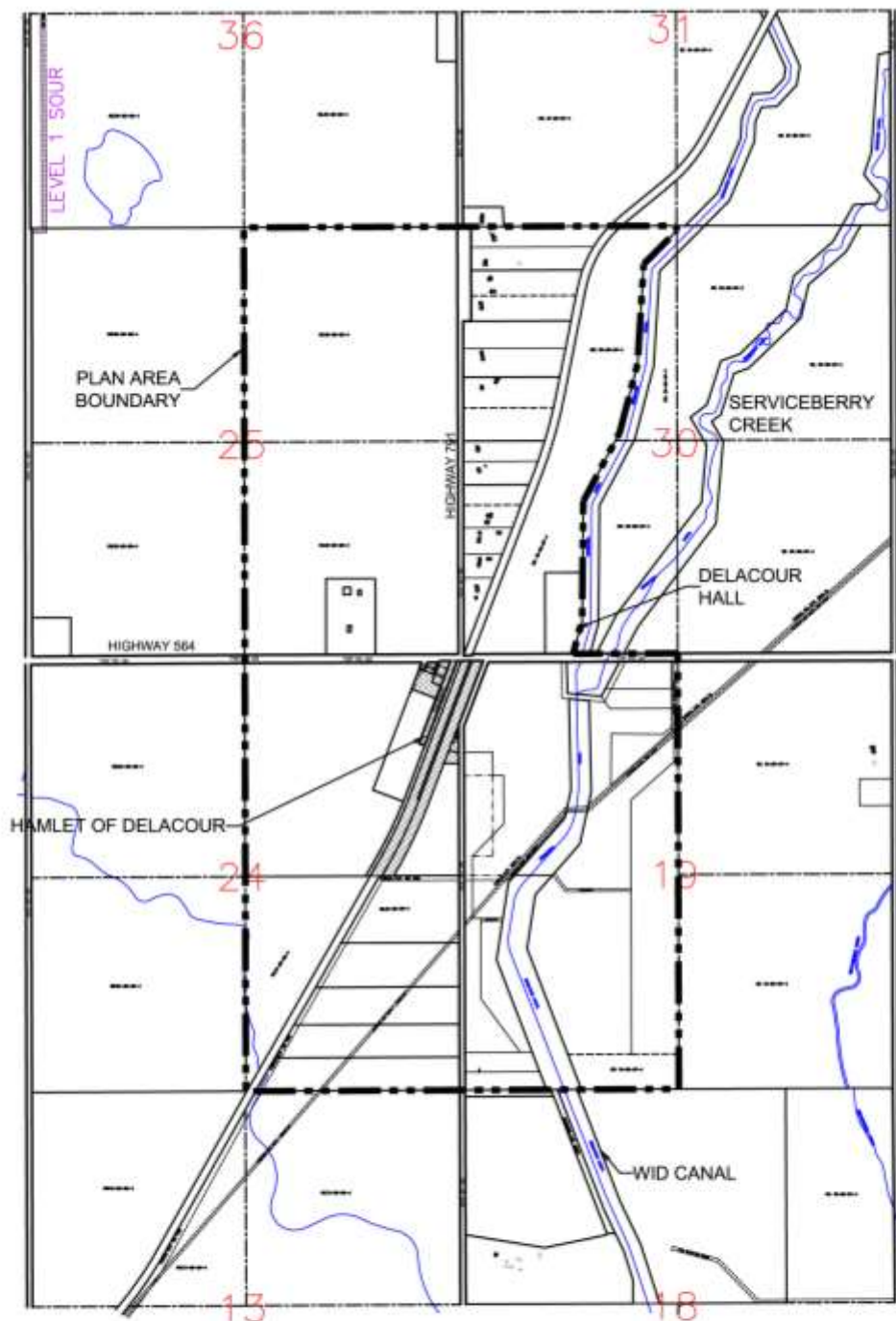
The Land Use Concept (**Figure 3**) reflects a rural community with respect for agriculture and a growth strategy that is oriented toward revitalization of the Hamlet of Delacour. The Land Use Concept additionally highlights the existing recreational opportunities within the Plan Area.

### **4.1 The Plan Area**

The Plan Area is identified on **Figure 2**. The Plan Area includes land within the Hamlet boundary and outside of the Hamlet. These lands have common considerations as they pertain to community facilities, potential hamlet growth corridors, transportation, infrastructure and utilities. The Plan Area extends approximately one half mile east and west from the current Hamlet boundary and approximately one mile north and south.

The Hamlet of Delacour is not formally recognized as a hamlet by Alberta Municipal Affairs because there are not enough residences and there is not a sufficient mix of land

uses. Future development of the Hamlet is proposed, but will require access to piped servicing in the long term.



DESIGN	
DRAWN	ANS/KJKB
CHECKED	
APPROVED	
DATE	2004.10.05
SCALE	AS SHOWN

CLASH  
DELACOUR COMMUNITY AREA  
STRUCTURE PLAN

### PLAN AREA DETAILED PLAN AREA

LEGAL DESCRIPTION  
E 1/2 24, E 1/2 25 TWP 25-R28 W4M,  
and W 1/2 30, W 1/2 19 TWP 25-R 27 W4M

DILLON FILE NO.

FIGURE NO.

FIG 2



## **4.2 Plan Area Opportunities and Constraints**

The Plan Area contains various natural and physical features that should be considered when development occurs. These include, but are not limited to, the following:

### **4.2.1 Highways 564, 791 - Offset Interchange Location and Sight Distance**

Highway 564 is a paved roadway with a right-of-way of 30 metres bisecting the Plan Area in an east/west direction. This highway has a speed limit of 70 kilometres per hour and provides one lane of traffic in either direction. Alberta Transportation has classified Highway 564 as a major, two-lane highway. With this classification it is anticipated that the future right-of-way may require 60 metres. All future development adjacent to Highway 564 should adhere to setbacks from the ultimate right of way. Highway 564 rises in slope to the west and sight distance is limited in both directions at the interchange with Highway 791.

Highway 791 is a gravel roadway with a width of 20 metres and provides one lane of traffic in either direction. Alberta Transportation has classified this road as a minor, two-lane highway. It is anticipated that Highway 791 will also require an ultimate right-of-way of 60 metres.

The alignment of the intersection of Highway 791 and Highway 564 is offset by approximately 100 m. This is due to presence of a Canadian National Railway crossing that crosses Highway 564 at an angle. Therefore, to cross Highway 564 from Highway 791 requires the use of two separate t-shaped intersections 100 m apart and separated by a railroad track. Despite this offset, all intersections are estimated to operate at excellent levels of service in the long term.<sup>1</sup>

Highway 564 carries significant topography through the Plan Area. A Sight Distance Analysis was conducted<sup>2</sup> by IBI Group in May of 2002. This study concluded that all required sight distances are exceeded and are estimated to function at a high level of service.

### **4.2.2 The Western Irrigation District (WID) Canal and Service Berry Creek**

A portion of the WID canal bisects the Plan Area in a North/South manner. The Canal has both potential opportunities and constraints. The WID requires a 45 m setback from the canal for a permanent structure (inclusive of garden sheds or buildings with a non-permanent foundation). Percolation testing for properties within proximity to the Canal is

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<sup>1</sup> IBI Group "Traffic Impact Assessment for the Proposed The Canal at Delacour Golf Club", May 2002 using a base and base plus scenario safety of the interchange was estimated a high operational levels well into a twenty year time horizon taking area growth rates over time into consideration.

<sup>2</sup> IBI Group "Traffic Impact Assessment for the Proposed The Canal at Delacour Golf Club", May 2002.

paramount due to the potential high water table adjacent to the system. The WID Canal, however, provides potential for a reservoir to be used as a potable water source. Additionally, the WID Canal could be utilized as a potential collection and disbursement system for stormwater provided water quality is monitored and flow rates and discharge rates are met and WID charge rates apply.

#### 4.2.3 Groundwater Evaluation

A Preliminary Groundwater Feasibility Assessment was conducted for the Plan Area (refer to **Appendix A** for a summary of results). In order to assess potential aquifer yield for planning potential development density, preliminary assessments may be used as a guide in predicting potential aquifer yield in an area. These preliminary assessments may be used at the initial stages of planning but should not replace the more rigorous investigations required by Alberta Environment when obtaining development approval. The preliminary assessment determined that the west half of section 30 contained the highest potential for future development based on groundwater sources. Yield potential within the Plan Area and outside of the west half of section 30 is either very low or requires more thorough analysis to accurately assess. It would appear from the preliminary analysis that groundwater sources would not be able to sustain high levels of development density on the long term. Should development be proposed that is of higher densities than those projected in the feasibility assessment a communal or piped system should be considered.

#### 4.2.4 Potential for Piped Water and Wastewater Servicing

The Plan Area is considered to be within the Northeast Regional Servicing Area as designated by the Municipal District of Rocky View No. 44. The Plan Area could be serviced with piped water by either the Kneehill Water Line or the Rocky View Water Co-op. Both of these options are projected within a five to ten year timeframe for actual construction and availability for tie in opportunities. Each system would require over sizing and tie-in costs to be borne by the Developer and both are expensive in these terms. In economic terms it is estimated that Developer would need to service about 400 lots to bring a water line to the Plan Area.

#### 4.2.5 Serviceberry Basin Management Strategy - Wastewater, Storm Water and Solid Waste Management

The Municipal District of Rocky View is taking a comprehensive approach to water, wastewater, stormwater and solid waste management. Development within the Plan Area should be prepared in a comprehensive manner with regional objectives for servicing integrated

within development proposals. All communal systems for wastewater management should be designed with best practices standards appropriate to the situation. Development of components of utility infrastructure cannot be done in isolation. If the Plan Area were to develop to higher densities it would follow that upgrades to power lines, gas lines, and shallow utilities would also be required.

#### 4.2.6 Agriculture and Soil Quality

The Delacour Community Plan Area is situated in a portion of the Municipal District that is predominately agricultural. Urban Growth pressures are felt in this area, but not as strongly as other locations to the west of the Plan Area closer to the City of Calgary. During the preparation of this plan, protection of existing agricultural operations from premature development and interference from residential development to lessen the impact on day-to-day practices (i.e., spraying, combining, moving equipment, etc.) were concerns. Additionally, the Canada Land Inventory classifies the soil as Class 1 for agricultural production. Class one soils are considered to have no limitations to agricultural production and are widely protected from premature development in most rural areas.

#### 4.2.7 Railway

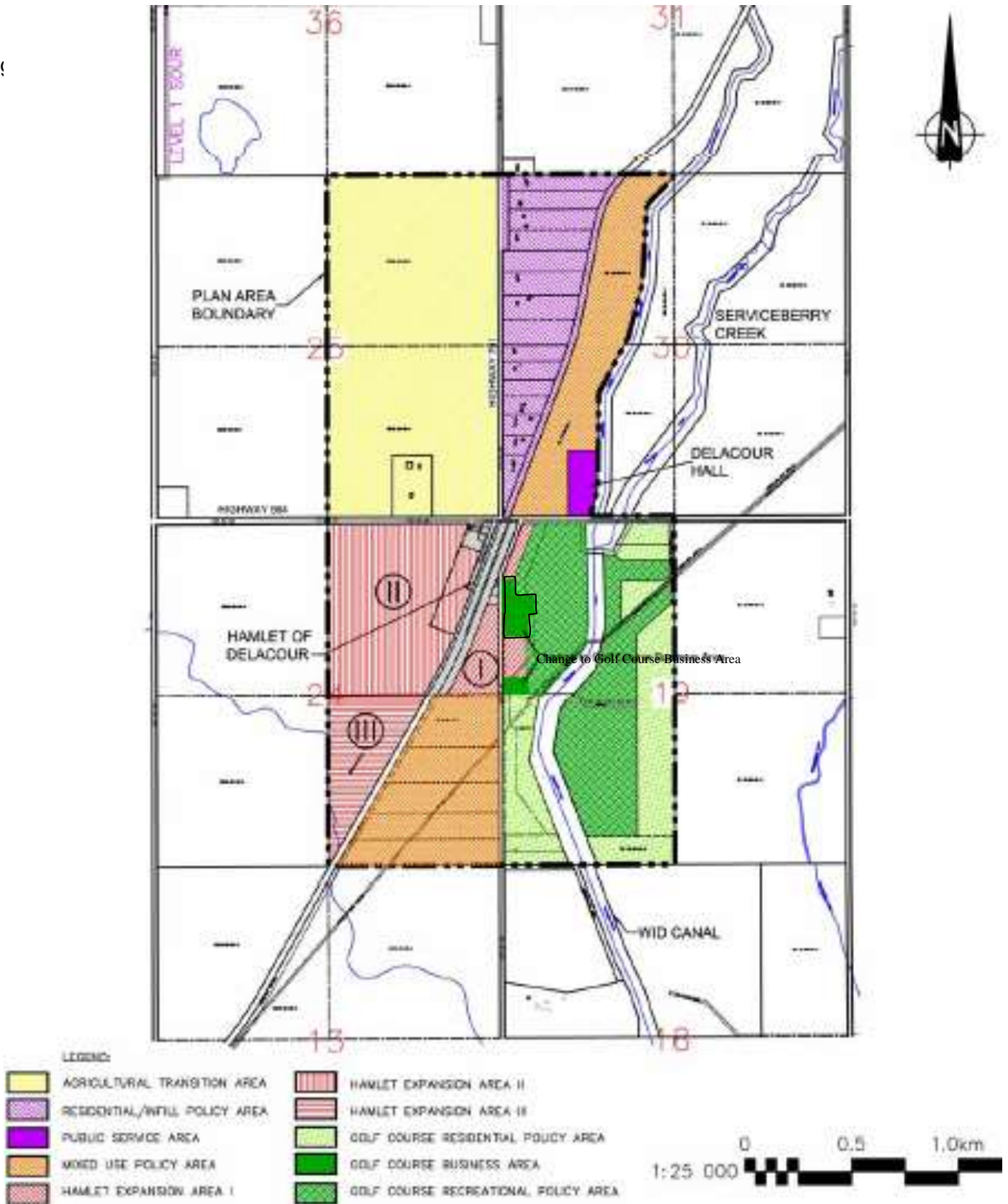
The Plan Area is bisected by a railroad track, which as mentioned above, results in an offset interchange between Highway 564 and Highway 791. This track is a main line and sees an average of 25 trains per week. Setbacks from the railway right-of-way should be adhered to and residents and future developments must be made aware of the noise and potential safety concern that the proximity to a rail line brings. In addition, the rail line is situated in such a manner that it tends to impede drainage through the plan area from the higher western elevations to the lower eastern elevations. In some locations there are drainage traps between the rail line and the WID Canal. Setbacks from the rail line will apply in accordance with railway regulations.

## 5.0 PLAN POLICIES

This section outlines policies that will guide future development in the Plan Area. These policies shall apply to the areas as identified on **Figure 3** Land Use Concept. The land use concept reflects the ability of the community of Delacour to grow over time provided appropriate levels of service are available to accommodate future growth and interference with existing agricultural operations are minimised. The land use concept provides for residential development that is phased, inclusive of architectural controls,

and requiring consideration of long-term future servicing options. The land use concept promotes growth of the Hamlet of Delacour within an area bound by Highway 564 and the railroad track; no leapfrogging of the Hamlet over physical barriers is contemplated. The plan promotes and attempts to improve pedestrian linkages to recreational areas and identifies areas where future rural business may appropriately be located.

Fig



## **5.1 General Policies**

- a) The land use policies contained within the plan are to be applied within the Plan Area identified on **Figure 3**. However, the land use surrounding the Plan Area is predominately agricultural and particular attention should be paid to the impact of development within the Plan Area may have on agricultural operations both inside and outside of the Plan Area.
- b) General Commercial and Industrial uses will not be supported outside of the Hamlet Expansion areas. Local commercial uses, and golf course related commercial uses, will be permitted within either the golf course commercial area and/or the Agricultural Transition Area on a site-specific basis. Home based businesses of a rural nature, consistent with the Municipal District's land use bylaw, may locate in areas identified on the land use concept as mixed use policy area provided they are compatible with adjacent land uses and supported by the community.
- c) All redesignation and subdivision proposed in the Plan Area must prepare a Concept Plan that shall include:
  - i) Stormwater Management Plan.
  - ii) Municipal and Environmental Reserve dedication strategy.
  - iii) Architectural controls and guidelines.
  - iv) Transportation network illustrating access points and development standards.
  - v) Phasing for development, including density and potential urban overlay in anticipation of piped services.
  - vi) Servicing strategy demonstrating suitability for the land for individual water and wastewater services, provisions for connections for future tie in to piped regional services, methods of handling household waste materials, and methods of recycling.
  - vii) Demonstration of how the new development will be compatible with existing hamlet development and/or residential development, community recreation sites, and adjacent agricultural operations.
  - viii) Population projections and indication of target market to determine impact on School District requirements.
  - ix) Periphery landscaping and aesthetic details that will enhance the development area.
  - x) Addresses recreational uses, open space, sidewalks (if required) and potential pathway development for use by area residents. Such

plans should include potential linkages and connections for remaining sections of the ASP area

- xi) If applicable, fire design and fire hydrants should be developed on site with adequate flows.
- d) All development, redesignation, and subdivision applications must meet all regulations included in the MD of Rocky View Land Use Bylaw as well as other applicable Federal, Provincial, and Municipal legislation and regulations
- e) Any application to amend the Delacour Community Area Structure Plan will be considered only after a community consultation program has been conducted and the proposed amendment is found to meet the vision and mission for the community and has received community support.
- f) All development, and subdivision shall meet the minimum setback requirements as established by the Alberta Energy and Utilities Board (A.E.U.B.) in regards to oil and gas pipelines, wells and facilities.

## **5.2 Agricultural Transition Area**

The Agricultural Transition Area was determined on the basis that these properties are still under agricultural use, remain largely unsubdivided and contain soils having few limitations for agricultural production. It is possible that these lands could stay in agricultural production in the long-term. However, due to the proximity to existing residential areas, available highway access, and necessity to be planned properly as interface between hamlet uses, existing residential, and agricultural lands it is anticipated that these lands will begin to transition away from a primary agricultural use.

- a) Lands identified within the Agricultural Transition Area may remain in agricultural use. Premature conversion of these lands to other uses should be discouraged.
- b) Conversion of Agricultural Transition Area lands is identified as residential or local commercial in nature, and requires the following:
  - i) the proposed land use must be consistent with the policies in the Municipal District of Rocky View's Municipal Development Plan;
  - ii) any necessary road widening for Highway 791 and Highway 564 is fully dedicated from the lands identified within the Agricultural Transition Area;
  - iii) the proposed development is subject to the General Policy Section 5.1 in this plan requiring Concept Plans; and
  - iv) the proposed development must be supported by communal and/or piped water and wastewater servicing.

### **5.3 Hamlet Expansion Area**

During the public consultation program it was determined that the Hamlet of Delacour had value to the residents and there is a desire to retain and re-establish the Hamlet of Delacour in the short and long-term. Interviews with stakeholders helped to identify past historical uses in the Hamlet (i.e., post office, grocery store, grain elevators) that were important parts of the community at one time. The land use concept identifies an ambitious Hamlet Expansion; however, it is dependant on a number of factors that need to coincide. They include:

- i) willingness of the landowner(s) to convert the land from its current agricultural use;
- ii) long-term access to piped water and sewer service;
- iii) additional conceptual planning inclusive of residential, commercial, industrial, open space, architectural controls and integration of public lands and open space; and
- iv) integrated regional servicing strategies regarding water, wastewater, solid waste and stormwater management.

In determining the boundaries for Hamlet Expansion, it was considered important that the Hamlet remain within a contiguous planning unit in order to promote efficient transportation and servicing linkages.

The Hamlet Expansion area is broken into three sub-areas. Hamlet Expansion Area I, Hamlet Expansion Area II, and Hamlet Expansion Area III. Hamlet Expansion Area I is considered to be the initial Hamlet development area. Hamlet Expansion Area II can be developed to a “semi-urban” (*defined as being larger lots of moderate densities, clustered in style, with an urban overlay in place for added density provided piped servicing is available*) density provided all water and wastewater streams are communal and easily integrated to an eventually higher hamlet density. Hamlet Expansion Area III is not considered appropriate for development until such time as access to piped water and wastewater services is available. Should piped water and wastewater services be available Hamlet Expansion areas II and III could be developed concurrently.

#### **5.3.1 General Hamlet Expansion Area Policies**

- a) Hamlet development should be phased and balanced to promote a range of uses supportive of the surrounding residential and agricultural community.
- b) Hamlet areas I, II and III could be developed in sequence or as part of a comprehensive master plan provided appropriate levels of servicing are available.
- c) The Hamlet should expand in a manner that results in it becoming a service centre within the MD of Rocky View.



- d) Where possible, Hamlet Expansion plans should include some pedestrian connections to the Delacour Hall and other community recreation sites within the plan area.
- e) Hamlet Expansion requires the preparation of a detailed Concept Plan as indicated in the General Policies Section 5.1.

#### **5.3.2 Hamlet Expansion Area I**

Hamlet Expansion Area I is located east of the established historical hamlet and adjacent to the east side of the railway tracks and station grounds. This is an area that has been identified as supporting small lot single family or multi-family villa style developments on parcels of one half acre or less. Communal servicing within Hamlet Expansion Area I area must be in place to support the proposed density and housing style.

- 5.3.2. a) In addition to the information required in the general policy Section 5.1, lands within Hamlet Expansion Area I shall be subject to the following:
  - i) Initial development in Hamlet Expansion Area I may occur based on groundwater source(s) provided the source(s) is a licensed communal well that is treated and the disbursement system is designed in such a manner that it can eventually be integrated with a piped service.
  - ii) Initial development in Hamlet Expansion Area I may be supported by communal wastewater (i.e., pump out tank, septic field, lagoon), stormwater, and solid waste systems provided they can be eventually integrated with a regional service in conjunction with the Municipality.
  - iii) The suggested average parcel size for residential uses within Hamlet Expansion Area I shall be one half acre (1,850 m<sup>2</sup>).

#### **5.3.3 Hamlet Expansion Area II**

Hamlet Expansion Area II contains the original hamlet site and the railway station grounds within its boundaries. It is anticipated that Hamlet expansion within Area II begin on the east side and move progressively to the west.

- 5.3.3. a) In addition to the information required in the general policy Section 5.1, lands within Hamlet Expansion Area II shall be subject to the following:
  - i) Initial development in the Hamlet of Delacour may occur based on groundwater source(s) provided the source(s) is a licensed communal well that is treated and the disbursement system is

designed in such a manner that it can eventually be integrated with a piped service.

- ii) Initial Hamlet development may be supported by communal wastewater (i.e., pump out tank, septic field, lagoon), stormwater, and solid waste systems provided they can be eventually integrated with a regional service in conjunction with the Municipality.
- iii) Hamlet Expansion Area II development needs to recognize iconic buildings (i.e., Girl Guide Hall) within the Hamlet.
- iv) Access to Hamlet Expansion Area II should be developed utilizing a single approach onto Highway 564 on the west quarter line and Broadway Street to the East.
- v) Hamlet Expansion Area II should support commercial and light industrial uses provided they meet the criteria for those uses as outlined in Section 6.0 below.

#### **5.3.4 Hamlet Expansion Area III**

Hamlet Expansion Area III is likely to be less residential in nature and could possibly support a greater mix of small-scale commercial and industrial uses due to its proximity to the railroad.

- a) In addition to the information required in the General Policy Section 5.1, lands within Hamlet Expansion Area III shall be subject to the following:
  - i) Service extension, road linkages, public land dedications, open space strategies, and full tie in with Area II must be included in any development concept for Area III.
  - ii) No new access locations for Area III shall be permitted, all means of access for Area III should be linked and achievable through Area II.
  - iii) Area III should be identified for supporting commercial and industrial uses as outlined in Section 6.0 of this plan.
  - iv) Developments for commercial and industrial uses in Hamlet Expansion Area III require informal public consultation and compatibility with adjacent land uses.

### **5.4 Mixed Use Policy Area**

The Mixed Use Policy area has historically supported long-standing agricultural holdings and rural businesses. The continuation of home based or agricultural businesses in this

area either on a stand-alone basis or in support of recreational property (i.e., Delacour Hall/The Canal at Delacour) are to be continued in this area. The Land Use Concept **(Figure 3)** identifies the Mixed Use Policy Area as an area for residential development, home based business, recreational business, and/or agricultural businesses. It is intended that these agricultural holdings continue to support small-scale agricultural businesses and home based businesses in the short-term. In the longer term these lands may transition to residential or recreational uses provided adequate servicing and proper internal road connections are made, and conflicts with the rail line are minimized. The conversion of these lands to residential or recreational uses should not jeopardize ongoing agricultural business activities in these areas.

- a) Applications for development in the Mixed Use area are subject to the General Policy Section 5.1.
- b) In addition to the information required in the General Policy Section 5.1, lands within the Mixed Use Policy Area should support agriculturally based businesses and home based businesses, residential land uses and/or recreational uses at the discretion of the Municipal District of Rocky View No. 44.

## **5.5 Residential Infill Policy Area**

The residential infill policy area contains a collection of parcels of various sizes; the majority are between two and fifteen acres. This portion of the Plan Area contains the greatest degree of slope constraints and additional geotechnical studies and drainage studies may be required for development to occur in this area. This policy area contains numerous access locations onto the Highway 791 that may be considered temporary and will require consolidation over time.

- a) In addition to the information required in the General Policy Section 5.1, lands within Residential Infill Policy Area shall be subject to the following:
  - i) Parcel sizes shall not be smaller than two acres.
  - ii) Comprehensive planning is required for redevelopment of these parcels to occur. A reduction and consolidation of access points will be required and proper dedication and/or construction of service road right-of ways shall be required.
  - iii) Redevelopment of land within the residential infill policy area should contain parcels with at least one acre of developable land (to allow for building and septic field) outside of a 15% slope break. The Municipality may, at their discretion, request additional geotechnical and/or slope stability studies.
  - iv) Due to prevalent slopes within this policy area the Municipality may, at their discretion, request additional studies that address overland drainage and containment of stormwater both onsite and offsite (i.e.,

underneath the culvert in the rail line and east to the WID canal) as a result of redevelopment to higher densities.

## **5.6 Golf Course Policy Area -**

### **Golf Course Recreational Area, Golf Course Commercial Area and Golf Course Residential Area**

The Golf Course Policy Area consists of a logical planning unit surrounding *The Canal at Delacour Golf Course*. A Golf Course can be an engine for economic development and employment in an area and this Delacour Community Plan policies have been established to anticipate potential economic development due to the large recreational amenity the neighbourhood offers in the golf course and the Delacour Hall. The Golf Course has planned for a clubhouse with a pro shop and banquet room. It is anticipated that the Golf Course Policy Area can support both residential and local scale business uses in accordance with this plan. The Golf Course Policy Area has been divided into three basic sub areas, which are as follows:

The Golf Course Recreational Area which contains The Canal at Delacour Golf Course, the Golf Course Business Area which is proposed to contain the golf course club house and maintenance facilities and businesses that may be complimentary to and compatible with the golf course, and the Golf Course Residential Area which is proposed to contain residential uses adjacent to the course. Each sub area is subject to the following policies specific to its current and or future use:

#### **5.6.1 Golf Course Recreational Area**

- i) The Golf Course Recreational Area as identified on **Figure 3** contains The Canal at Delacour Golf Course and it is intended to support recreational uses only.

#### **5.6.2 Golf Course Business Area**

- i) The Golf Course Business Area as identified on **Figure 3** is intended to contain a golf course clubhouse/banquet room and maintenance facilities associated with the course.
- ii) It is anticipated that these facilities can be accommodated as discretionary uses under the current land use zoning and no change of zoning to commercial would be required.
- iii) It is anticipated that uses in this area be complimentary to and compatible with the Delacour Community Hall.
- iv) Should a change of land use be required in this area to facilitate the clubhouse/banquet room to a commercial designation the policies outlined in Section 6.0 below would apply.

### 5.6.3 Golf Course Residential Area

- i) The Golf Course Residential Area can support residential uses provided they are developed in accordance with the General Policies contained in Section 5.1.

## **6.0 COMMERCIAL/INDUSTRIAL DEVELOPMENT POLICIES**

Commercial policies are split by location, there are policies for commercial uses within the Hamlet and Hamlet Expansion Areas and policies for commercial uses outside of the Hamlet boundary and within the Plan Area boundary. Currently lands along the railway, adjacent to the rail line are designated for Hamlet Industrial development. While industrial development is not a community priority, if developed in a manner sensitive to the community, and located only within Hamlet Expansion Area II and/or III, it could be welcomed. Small scale, locally oriented commercial development is supported in areas identified on the Land Use Concept (**Figure 3**) as Hamlet or Agricultural Transition Areas. Large-scale commercial development (i.e., Big Box retail, warehousing) is not being considered for the Plan Area. Appropriate levels of commercial would be those that serve the local and regional area, have ties to agricultural business, or provide community services.

### **6.1 Hamlet Commercial and Industrial Policies**

- a) Commercial development is to be considered only within designated areas identified in Section 5.0. This is specifically Hamlet Expansion Areas II & III.
- b) Within the Hamlet Expansion Areas, all commercial development should be local in orientation, preferably with a central market place.
- c) Commercial development will be a maximum of two storeys in height (9 m to 10 m) and constructed in such a manner as to reflect the rural small town “main streets” of old.
- d) Industrial development is permitted and is reflected in the existing zoning, along the south side of Broadway Street west side of Highway 791, south of the intersection with Highway 564, and shall be light industrial in nature, appropriately screened and landscaped, and meet the criteria established in Section 6.0 (e).
- e) Any industrial development shall be located on existing Hamlet Industrial parcels, or within Hamlet Expansion Area II and/or III, and shall meet the following criteria:
  - i) not to exceed a maximum of two storeys or 9 m to 10 m in height;
  - ii) shall not create any form of pollution, either air, noise or groundwater;

- iii) shall not exceed normal hours of operation (7 a.m. to 7 p.m.);
  - iv) shall incorporate flood control measures that could include roof top storage, reduced lot grading, reduced hard surfaces, grassed channels and/or dry ponds;
  - v) shall incorporate perimeter berming to mitigate any run off site drainage of spills;
  - vi) shall incorporate emergency services plan and coordinate this with the MD and the community;
  - vii) shall incorporate landscaping into the site; and
  - viii) security lighting will be low mast and directed to the structure, not away from the structure.
- f) Signage will be in accordance with the MD of Rocky View Land Use Bylaw and will be sensitive to the rural agricultural character of the community and will not include high mast backlit signs.
  - g) On-site parking may be provided as angle parking in front of the building.
  - h) Professional and Service offices are appropriate uses for the second floor of new commercial development. Residential / Apartment style living also may be considered.
  - i) The light industrial land, designated as such at time of this plan preparation, may develop and will be required to demonstrate environmental and ecological performance standards to mitigate any impact on the community.

## **6.2 Commercial and Industrial Polices Outside of the Hamlet Boundary and within the Plan Area**

- a) No additional industrial development, outside of designated areas identified in Section 6.1, will be considered within the Plan Area.
- b) Commercial development proposed outside of the Hamlet Boundary and within the Plan Area shall meet the following criteria:
  - i) shall be developed on an appropriate scale providing services to the travelling public and/or local and regional community;
  - ii) shall be tied in to a piped or communal water and wastewater system;
  - iii) should be part of a larger master plan and integrated with adjacent land uses proposed for the area; and
  - iv) shall be subject to a land use redesignation and public hearing process.

## **7.0 INSTITUTIONAL**

Should the Hamlet expand, as identified in the Land Use Concept, the expansion plan may be required to include school site selection and coordination with the Rocky View School Division to ascertain current and future school requirements.

- a) Future plans for expansion of the Hamlet of Delacour should include school site selection and accommodation in accordance with the Rocky View School Division guidelines.

## **8.0 RECREATION/OPEN SPACE**

The Plan Area supports an excellent community centre, the Delacour Hall, which provides a wide range of recreational and support services. This facility and its equestrian park will continue to be a focal point for the community.

- a) The Community supports the continuation and growth of the Delacour Hall as it continues to serve the community and surrounding area.
- b) Paths and trails should be constructed, in conjunction with new development to link the residential areas to the community recreation sites (i.e., Delacour Hall, Golf Course), and/or centrally planned Municipal reserve sites.
- c) Pathway construction may be gravel or crushed limestone (pavement is not required) and will be of a width to accommodate multiple users and including equestrian movements.
- d) General locations for pathways are to be finalized at the subdivision stage and should be located in Municipal Reserve or Environmental Reserve.



## **9.0 MUNICIPAL RESERVE AND ENVIRONMENTAL RESERVE**

### **9.1 Environmental Reserve**

The Delacour Community Plan should ensure that areas that qualify as Environmental Reserve are identified at the Concept Plan Stage and dedicated at the discretion of the Municipality. Where there are significant slopes identified on the site, these lands shall be protected from development through the dedication of Environmental Reserve or Environmental Reserve Easement, and/or identification outside the building envelope via Restrictive Covenant where appropriate and at the discretion of the Municipality. Environmental Reserve should be dedicated in such a manner that it provides for comprehensive protection of natural features and is not done on an ad hoc basis.

Policies:

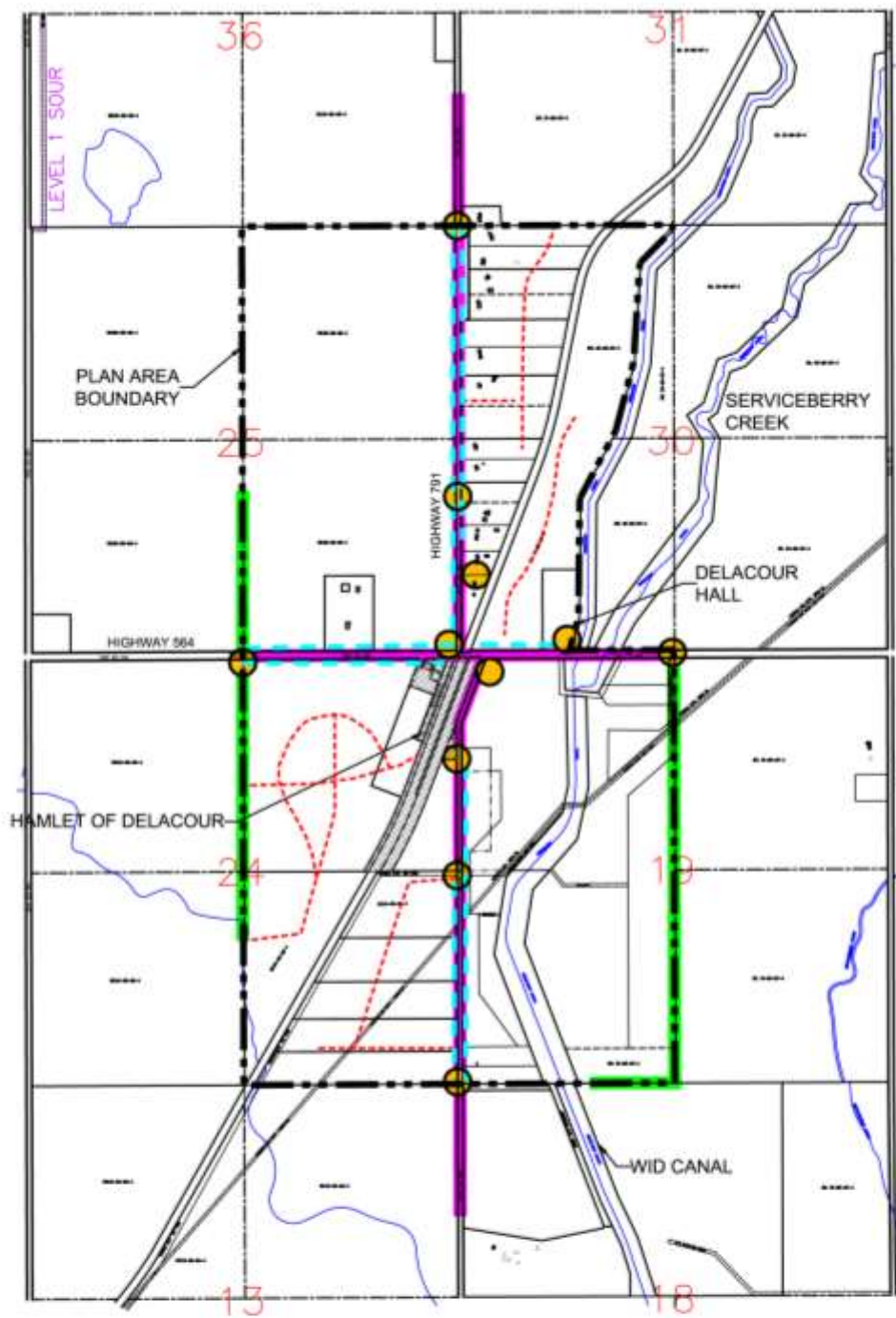
The dedication of Environmental Reserve (ER) and/or Environmental Reserve Easement (ERE) in the Plan Area shall be considered by the Municipal District at the time of subdivision approval.

### **9.2 Municipal Reserve**

To ensure the dedication of public land consisting largely of Municipal Reserve (MR) land that has been dedicated to the Municipality upon development approval. Municipal Reserve should be integrated within a Concept Plan and be of use on an area wide basis.

- a) Dedication of Municipal Reserve, either by cash-in-lieu of land, deferred reserve caveat, or by physical dedication of land, or combination of same, in the Plan Area shall be determined by the Municipality in accordance with the Policies in this Plan.
- b) Lands dedicated for Municipal Reserve should be of similar quality as lands being utilized for development.





LEGEND:

- |   |                        |
|---|------------------------|
| ----- CONCEPTUAL INTERNAL ROADS         | ----- HIGHWAY          |
| ----- CONCEPTUAL PARALLEL SERVICE ROADS | ● SHARED ACCESS POINTS |
| ----- CONCEPTUAL FORCED MUNICIPAL ROADS |                        |

1:25 000 0 0.5 1.0km

DESIGN  
DRAWN ANS/KJKB  
CHECKED  
APPROVED  
DATE 2004.10.05  
SCALE AS SHOWN

CUSTOMER  
DELACOUR COMMUNITY AREA  
STRUCTURE PLAN

CONCEPTUAL ACCESS MANAGEMENT PLAN

LEGAL DESCRIPTION  
E 1/2 24, E 1/2 25 TWP 25-R26 W4M,  
and W 1/2 30, W 1/2 19 TWP 25-R 27 W4M

SHEET FILE NO.

FIGURE NO.

FIG 4

## **10.0 TRANSPORTATION AND ACCESS**

**Figure 4** identifies a Conceptual Access Management Plan which delineates options to accommodate traffic requirements. The Delacour Community Plan boundary is entirely within one half mile (0.8 km) of the right of way of a highway. As a result, all approvals and proposals for development and access onto the highway system must meet the standards and specifications of Alberta Infrastructure and Transportation. Additionally, internal subdivision roads proposed within the Plan Area must meet the standards of the MD of Rocky View No. 44. All road and setback requirements will conform to the current Municipal District of Rocky View Servicing Standards. This requirement may result in a system of parallel service roads not being compatible with Municipal access requirements. In many cases it may be more advantageous to utilize an internal road network rather than a parallel road system. The method of providing access to the Provincial Highway system should be determined at the time of developing a Conceptual Scheme, consistent with Section 5.0 of this Plan, for a most portions of the Plan Area. The Conceptual Access Management Plan (Figure 4) contemplates controlled access locations onto Highways 564 and 791 with a system of roads being utilized for access to properties in the Plan Area. The Conceptual Access Management Plan additionally shows conceptual internal roads and how they might function.

- a) All new residential roads will be constructed to a paved standard as outlined in the MD of Rocky View's Development Standards and should provide linkages to adjacent parcels in an effort to reduce direct access locations onto the Highway System.
- b) Broadway Street is considered to be the main collector road through the Hamlet of Delacour, connecting Highway 791. There will be no new direct access considered onto Highway 791 for the Hamlet.
- c) Applications for subdivision or development within the Plan Area are required to obtain approvals from Alberta Infrastructure and Transportation in accordance with the Subdivision Regulations as follows:

A subdivision authority shall not in a Municipality other than a city approve an application for subdivision if the land that is the subject of the application is within 0.8 kilometres of the centre line of a highway right of way where the posted speed limit is 80 kilometres per hour or greater unless:

- i) the land is to be used for agricultural purposes on parcels that are 16 hectares or greater;
- ii) a single parcel of land is to be created from an unsubdivided quarter section to accommodate an existing residence and related improvements if that use complies with the land use bylaw;
- iii) an undeveloped single residential parcel is to be created from an unsubdivided quarter section and is located at least 300 metres from the right of way of a highway if that use complies with the land use bylaw;

- iv) the land is contained within an area where the Municipality and the Minister of Transportation have a highway vicinity management agreement and the proposed use of the land is permitted under that agreement;
- v) the land is contained within an area structure plan; or
- vi) satisfactory to the Minister of Transportation and the proposed use of the land is permitted under that plan.

## **11.0 STORMWATER AND DRAINAGE**

The Delacour Community Plan Area is bisected by the WID canal and contains the headwaters of the Serviceberry Creek drainage basin. All overland drainage flows are to be contained on site. Any proposals to discharge stormwater into the WID canal shall be in accordance with all applicable WID standards. Additionally, the presence of the railroad track and two secondary highways causes natural drainage barriers and potential for drainage traps if not properly addressed in development applications.

- a) The MD of Rocky View will enforce Bylaw C-209 (October 11, 1960) and remove vegetation and blockages from culverts and ditches within the community.
- b) Applications for subdivision and development within the Plan Area require the preparation of a stormwater management plan to the satisfaction of the Municipality addressing stormwater on both a local and regional service basin levels.

## **12.0 UTILITIES**

In the case of the Delacour Community, utilities do not include piped water and sewer. There is currently no plan to install piped services into the Hamlet in the short term.

- a) Street lighting is not required in the residential area.
- b) Street lighting may be allowed in the commercial and industrial area primarily for security purposes.
- c) Security lighting is also allowed for the commercial and industrial area but must be low mast and focused on the structure, rather than out into the community.
- d) Shallow utilities will continue to be provided by the current service companies and must be extended at the sole cost of the developer when subdivision occurs.
- e) Should piped water and sewer services become available to the Hamlet, existing development may tie into these services; however, tie in is not mandatory.

## **13.0 COMMUNITY SERVICES**

### **Police Service**

- a) Police service to the Plan Area will be provided by the RCMP detachments at Strathmore, Airdrie and Biesker and the Special Constables of the Municipal District of Rocky View No. 44.

### **Fire Services**

- a) The Plan Area is in an area of the Municipal District which is serviced by a City of Calgary EMS station and Firehall.

## **14.0 DEVELOPMENT PHASING**

The MGA requires that an ASP address development phasing. This generally reflects the extension of piped services and construction of road. Due to the small area of land, the lack of piped services and the limitation of roads to be constructed, this Area Structure Plan does not outline distinct phasing areas. All future development will be considered based on the existing infrastructure. If new roads are required, or if existing roads require upgrading, it will be the full responsibility of the developer to do so to the standards and requirements of the Municipal District of Rocky View and/or Alberta Transportation.

The intent of the Plan is to support the development of lands in accordance with Figure 3: Land Use Concept. It is, however, anticipated that future development should focus on and support the historical hamlet core with development within the balance of the plan area occurring in accordance with the criteria of Section 5.2.

## **15.0 PLAN IMPLEMENTATION**

In terms of plan implementation, review and amendment, the Delacour Community ASP is intended to serve as a policy guide in order to assess more detailed subdivision and land use bylaw amendments. In effect, subdivision applications should be developed in conformity with this plan with some flexibility in terms of policy interpretation.

The MD of Rocky View *Municipal Development Plan* (MDP) is the guiding document for all development within the Municipality. The *Land Use Bylaw* (LUB) establishes the land use rules and regulations. The Delacour Community ASP presents a greater level of planning detail within the specific Plan Area and is required to be consistent with both the MDP and LUB.

Development in the Plan Area should be consistent with policy contained within the ASP and acceptable to the community. The Delacour Community ASP does not supersede, repeal, replace or otherwise diminish any other statutory plan in effect in the Plan Area.

- a) The policies contained within this document shall be reviewed and implemented by the Municipal District of Rocky View No. 44 at their discretion.
- b) As the Delacour Community ASP is a bylaw of the Municipality, a formal process as outlined in the Municipal Government Act is required to amend the Plan.
- c) Future applications to amend this Plan will be considered only after a community consultation program has been conducted and the proposed amendment is found to meet the vision and mission for the community and has received community support.
- d) This plan may be subject to further amendment upon establishment of a pathway system through the plan area by the Municipality and the Irricana Recreation Board.

The future land use and development outlined in the Delacour Community ASP is intended to address a long-term time horizon. Periodic review and occasional amendment of the Delacour Community ASP may be required in accordance with the *Municipal Government Act*.

**APPENDIX A**

**PRELIMINARY GROUNDWATER FEASIBILITY ASSESSMENT**

## MEMORANDUM

**TO:** John Berry – Bel-MK Engineering Ltd. (BEL)  
**FROM:** Stephen Mailath – BEL  
**DATE:** July 19, 2004  
**FILE:** 3836  
**RE:** Preliminary Groundwater Yield Potential Assessment at Delacour, Alberta for Land Parcels:  
W ½ 30-25-27 W4M  
W ½ 19-25-27 W4M  
E ½ 25-25-28 W4M  
E ½ 24-25-28 W4M

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Bel-MK Engineering Ltd. (BEL) has conducted a preliminary groundwater yield potential assessment of the above referenced land areas located near Delacour, Alberta. The objective of this assessment is to advise the Municipal District (MD) of Rocky View (No. 44) of the groundwater yield potential at these parcels as a component of the MD's development potential assessment.

### Background

There are several water supply options in rural Alberta, these include:

- Option 1. A private water supply system, based upon a central groundwater supply well with a piped water distribution system;
- Option 2. A trucked in water supply;
- Option 3. Surface water diversion, followed by filtration and disinfection prior to distribution to end users;
- Option 4. The use of a privately owned domestic water supply system where each lot has its own water well.

Based upon the high capital and operating costs of Options 1-3, subdivision developments commonly utilize Option 4 for water supply. Where groundwater resources are not overexploited in an area, water wells can be an inexpensive source of potable water. When groundwater resources become overexploited, alternate sources of water will be required.

In order to protect our water resources Alberta Environment have implemented policies that govern the assessment and use of both surface water and groundwater use in the province. Country residential subdivisions are regulated by Section 21(2) and Section 23(3) of the Water Act (Alberta Environment, 1996), which came into force January 1, 1999, and stated as follows:

**Water Act - Section 21(2)**

*Subject to subsection (3) and section 23 and any exemptions specified in the regulations, a person who owns or occupies land under which groundwater exists*

- (a) has the right to commence and continue the diversion of the groundwater for household purposes, and*
- (b) may not obtain a license for the diversion of the groundwater for household purposes.*

(Note: As defined in the Water Act, "household purposes" means the use of a maximum of 1,250 cubic meters of water per year per household for the purposes of human consumption, sanitation, fire prevention and watering animals, gardens, lawns and trees.)

**Water Act - Section 23(3)**

*If, after this Act comes into force, a subdivision of land of a type or class of subdivision specified in the regulations is approved under the Municipal Government Act, a person residing within the subdivision or a parcel of land that adjoins or is above a source of water described in section 21 has the right to commence and continue the diversion of water under section 21 only if*

- (a) 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 the subdivision under the Municipal Government Act, and the report states that the diversion of 1,250 cubic meters of water per year for household purpose under section 21 for each of the households within the subdivision will not interfere with any household users, licenses or traditional agricultural users who exist when the subdivision is approved, and*
- (b) the diversion of water for each of the households within the subdivision under section 21 is not inconsistent with an applicable approved water management plan.*

**Water Ministerial Regulation (AR 205/98)**

- 9(1) Subject to subsection (2), a type of subdivision of land for the purposes of section 23(3) of the Act is a subdivision that results in 6 or more parcels in a quarter section or in a river lot.



Based upon the foregoing, in order to obtain approval to subdivide under that each lot may have a water well system (Option 4), Alberta Environment (AENV) requires that the groundwater potential be evaluated according to specific protocol when the number of unserved residential parcels per quarter section, both existing and proposed, using the underlying groundwater resources, is six or more. As required by the Water Act and a letter of clarification regarding Section 23 of the Water Act to the MD of Foothills No.31 (AENV, April 27, 1999), a person residing within the subdivision on a parcel of land has the right to divert groundwater only if a report certified by a professional engineer, geologist or geophysicist was submitted to the subdivision authority (the MD) as part of the application for the subdivision under the Municipal Government Act, and the report states that the diversion of 1,250 m<sup>3</sup>/year of water per household, for each of the houses within the subdivision, will not cause a significant adverse effect on existing water users in the area. In addition, the report must quantify the effect that household rights within the newly created subdivision may have on existing water users in the area. These required assessments were implemented by AENV so that groundwater resources are not overexploited in our province and existing groundwater users will not go short.

Based upon this, Sections 21(2) and 23(3) of the Water Act ask two basic questions:

1. Is there sufficient water to supply the maximum requirement of 1,250 m<sup>3</sup>/year for existing plus proposed lots within a given quarter section?
2. Will the allocated volume of water for each proposed lot result in a significant adverse effect on neighbouring wells and licensed users existing at the time of subdivision application?

In order to evaluate the groundwater potential AENV requires that investigations and reporting is conducted including:

1. Review of available site documentation. This may include drillers reports, pumping and recovery test data, hydrochemical data and hydrogeological reports.
2. Water well drilling and testing including analysis of pumping and recovery test data, analysis of 20 year safe yield (Q20) and computation of theoretical impact on nearby wells. Aquifer yield, aquifer continuity, groundwater potability (and feasibility of treatment, as required) and aquifer susceptibility to potential contamination at the proposed subdivision should be considered.
3. Report preparation.

When aquifer yield evaluations are completed using this approach, empirical data acceptable to AENV determines the feasibility of obtaining sufficient groundwater for a proposed development while ensuring that existing users are not impacted negatively.

In order to assess potential aquifer yield for planning potential development density, preliminary assessments may be used as a guide in predicting potential aquifer yield in an area. These preliminary assessments may be used at the initial stages of planning but should not replace the more rigorous investigations required by AENV when obtaining development approval.

### **Delacour Aquifer Yield Preliminary Assessment**

A review of AENV Water Well Drilling Reports on the internet has been used to form a preliminary assessment of the potential aquifer yield at the four (4) parcels of land. It is important to note that information provided on Water Well Drilling Reports may be inaccurate, thus assessment of yield potential from these reports should be used as a guide only.

Table 1.0 contains a summary of water wells drilled in and near the 4 parcels of land. Included on this table are construction details such as well depth, static water level, screened intervals, aquifer lithology and completion date (where available). In addition, the N.T.S. location, well owner, water use and 20 year safe yield (Q20) are identified. The Q20 for wells in the evaluation area were computed using Farvolden's method (1959) ( $Q20 = (TaHa/2110)0.7$ ). This is based upon the apparent transmissivity (ie:  $Ta = 264Q(1 + \log t)/d$ ) computed from data provided on the Water Well Drilling Reports. The Q20 can be compared to the diversion of 1,250 m<sup>3</sup>/year (0.52 igpm) of water required per lot to evaluate the potential well yield in a parcel. The location of the wells provided in Table 1.0 are shown on Figure 1.0.

Based upon the information provided on the Water Well Drilling Reports the following observations should be noted for each parcel of land:

#### **Parcel E ½ 25-25-28W4M**

1. There are a total of 5 wells identified in E ½ 25-25-28W4M (Map ID 1-5). Where identified these wells were completed over sandstone aquifers. The pumping rate for 3 well tests ranged from 2 igpm (Map ID 4 and 5) to 10 igpm (Map ID 3) within this ½ section. The 20 year safe yield ranged from 0.34 igpm (Map ID 4) to 0.59 igpm (Map ID 5) (average 0.47 igpm). Based upon this there is marginal groundwater resource potential identified in this ½ section.
2. It is important to note that the groundwater yield potential may be underestimated because of the limited testing in this ½ section.

#### **Parcel W ½ 30-25-27W4M**

1. There are a total of 29 wells identified in W ½ 30-25-27W4M (Map ID 8-12, 14-22, 30-44). Where identified these wells were completed primarily over sandstone aquifers. The pumping rate for 20 well tests ranged from 1 igpm (Map ID 43) to 40 igpm (Map ID 33) within this ½ half section. The 20 year safe yield ranged from 0.19 igpm (Map ID 34) to 7.33 igpm (Map ID 35) (average 2.1 igpm).
2. The cumulative 20 year safe yield is 22.97 igpm computed from only 11 tests of the 29 wells. This is adequate to supply 44 lots.
3. Based upon the foregoing there appears to be considerable groundwater yield potential in this ½ section.

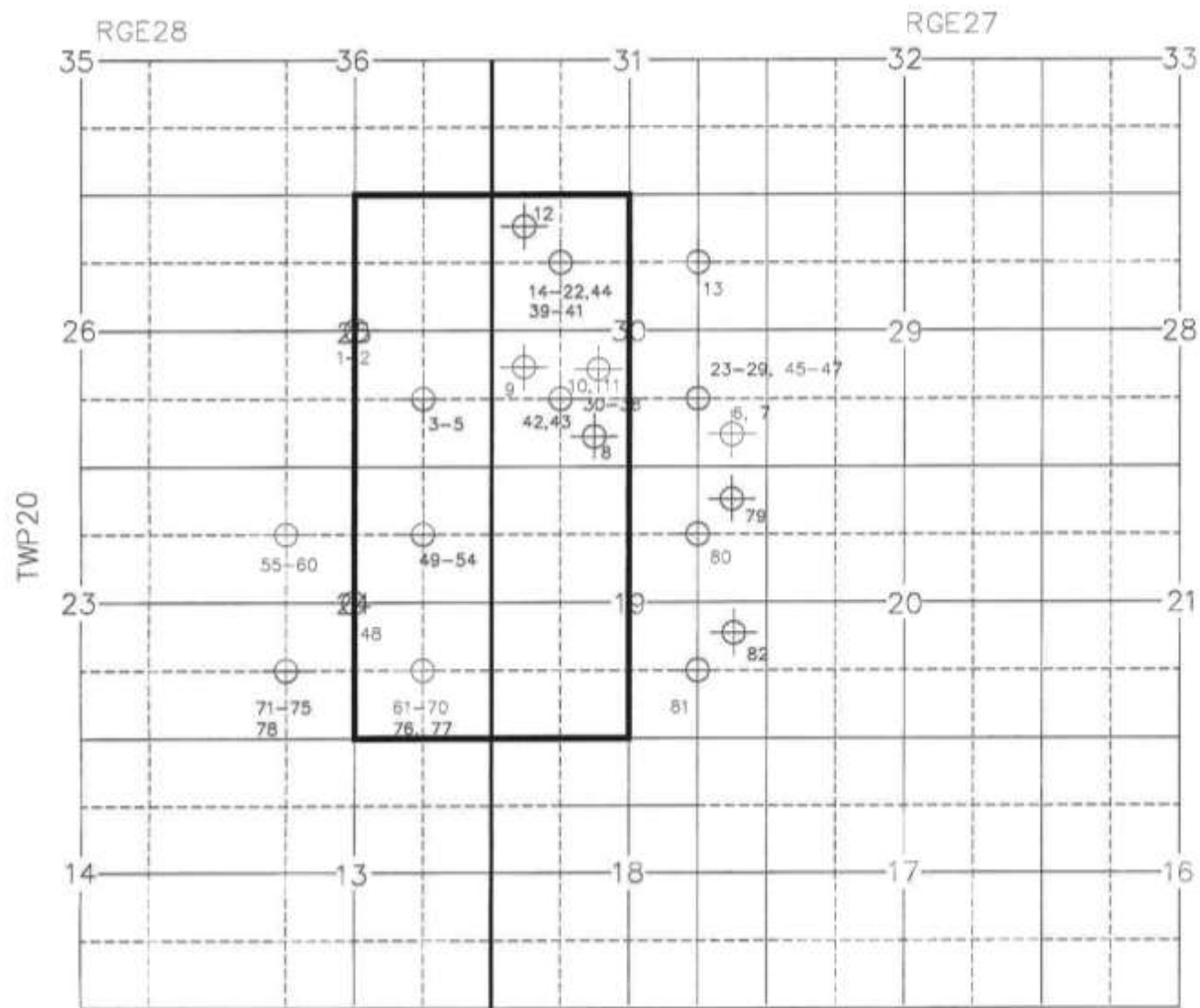
**Parcel E ½ 24-25-28W4M**

1. There are a total of 19 wells identified in E ½ 24-25-28W4M (Map ID 48-54, 61-70, 76-77). Where identified these wells were completed primarily over sandstone aquifers. The pumping rate for 13 well tests ranged from 1 igpm (Map ID 63) to 24 igpm (Map ID 48) within this ½ section. The 20 year safe yield ranged from 0.22 igpm (Map ID 54 and 70) to 2.11 igpm (Map ID 53) (average 0.83 igpm).
2. The cumulative 20 year safe yield is 3.3 igpm computed from only 5 tests of the 19 wells. This is adequate to supply 6 lots.
3. Assuming an average attainable 20 year safe yield for wells drilled in the half section of 0.83 igpm there appears to be marginal groundwater yield potential in this ½ section.

**Parcel W ½ 19-25-27W4M**

1. There are no well records for wells drilled in the W ½ 19-25-27W4M.
2. There are a total of 4 wells identified in E ½ 19-25-27W4M (Map ID 79-82). Where identified these wells were completed over sandstone aquifers. The pumping rate for the 4 well tests ranged from 1 igpm (Map ID 81) to 20 igpm (Map ID 82) within this ½ section. The 20 year safe yield ranged from 0.22 igpm (Map ID 81) to 17.53 igpm (Map ID 82) (average 4.63 igpm). Neglecting the anomalously high Q20 at well ID 82, the average Q20 is 0.33 igpm.
3. The cumulative 20 year safe yield is 18.51 igpm computed from 4 tests. Although this is adequate to supply 36 lots, it likely overestimates groundwater supply potential because of the high yield at well ID 82.
4. Assuming an average attainable 20 year safe yield for wells drilled in the half section of 0.33 igpm there appears to be limited groundwater yield potential in this ½ section.
5. It is important to note that the groundwater yield potential may be underestimated because of the limited testing in this ½ section.

Stephen Mailath



LEGEND



SUBJECT PROPERTY



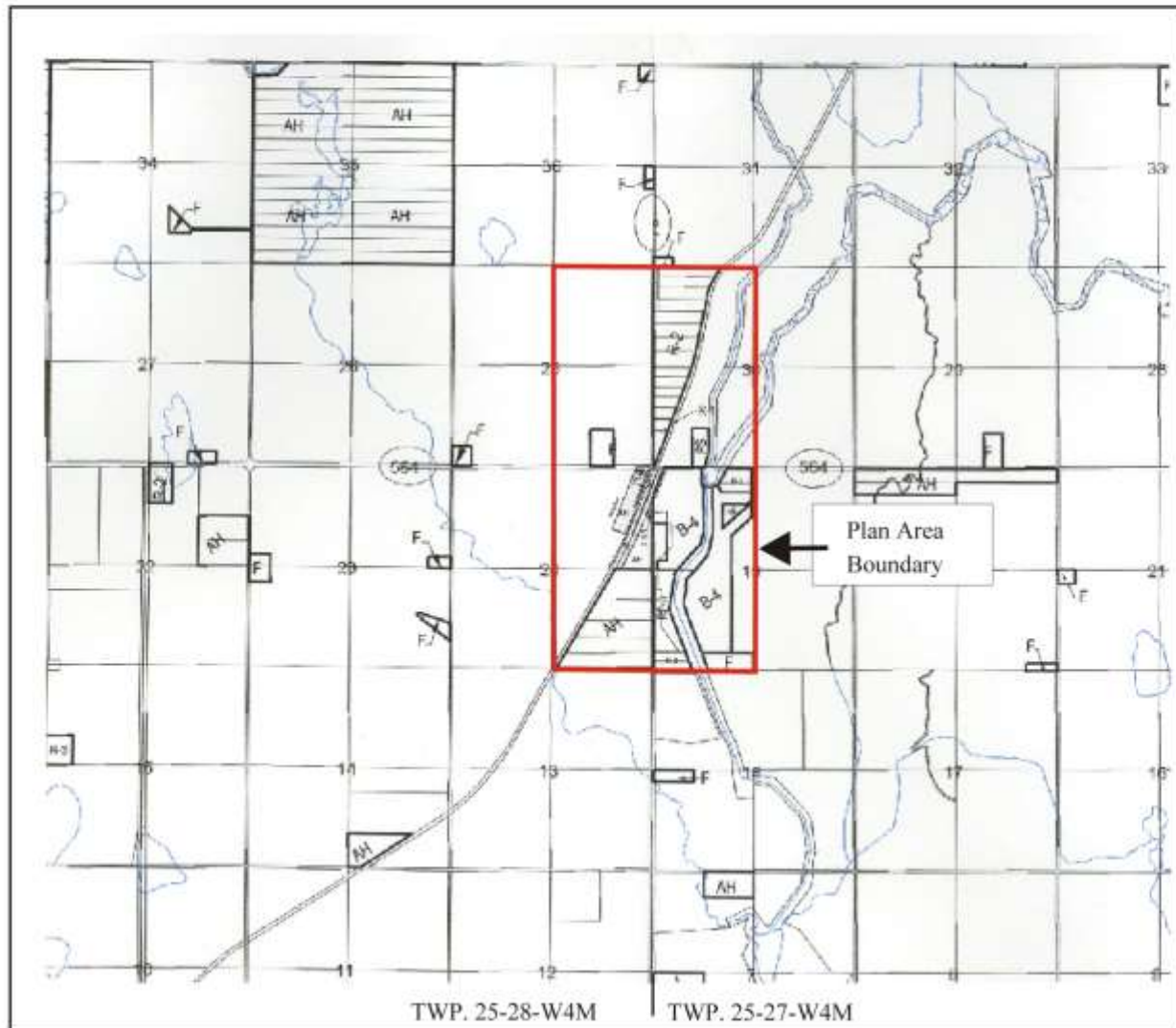
WATER WELL



FIGURE 1.0  
DELACOUR GROUNDWATER POTENTIAL  
WATER WELLS



**Bel-MK Engineering Ltd.**



**A Proposal for the Preparation of  
The Delacour Community ASP  
MD of Rocky View No. 44**

Drawing Title: Plan Area Boundary

Date: June 2004

Project # 04-22

Scale: NTS

**Figure 1  
Plan Area Boundary**



*Kristi Beunder  
Professional Planning Services*

Table 5.0 Summary of Water Web Data

[illegible]





Table 1.0 Summary of Water Well Data

Map Well ID	ATW Well ID	Location	Well Owner (Water User)	Date Installed	Date Completed	Total Depth (ft)	Interval (ft)	Stratigraphic Top Aquifer (ft)	Lithology	SWL (ft)	PWL (ft)	Pumping Rate (gpm)	Diameter of Test (in)	Transmissivity (inches/ft)	Q10 (gpm)
25-25-20W-4M	1	00-25-25-20W-4M	Indus. (11)		1/1/72	30.6	1.0			14.1	112.0				
	2	00-25-25-20W-4M	Indus. (11)		1/1/72	41.7	1.0			14.1	112.0				
	3	00-25-25-20W-4M	Indus. (11)		1/1/72	26.8	1.0			14.1	112.0				
	4	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	5	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	6	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	7	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	8	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	9	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	10	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	11	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	12	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	13	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	14	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	15	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	16	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	17	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	18	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	19	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	20	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	21	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	22	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	23	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	24	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	25	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	26	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	27	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	28	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	29	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	30	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	31	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	32	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	33	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	34	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	35	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	36	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	37	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	38	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	39	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	40	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
25-25-20W-4M	41	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	42	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	43	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				
	44	00-25-25-20W-4M	Indus. (11)		1/1/72	44.2	1.0			14.1	112.0				



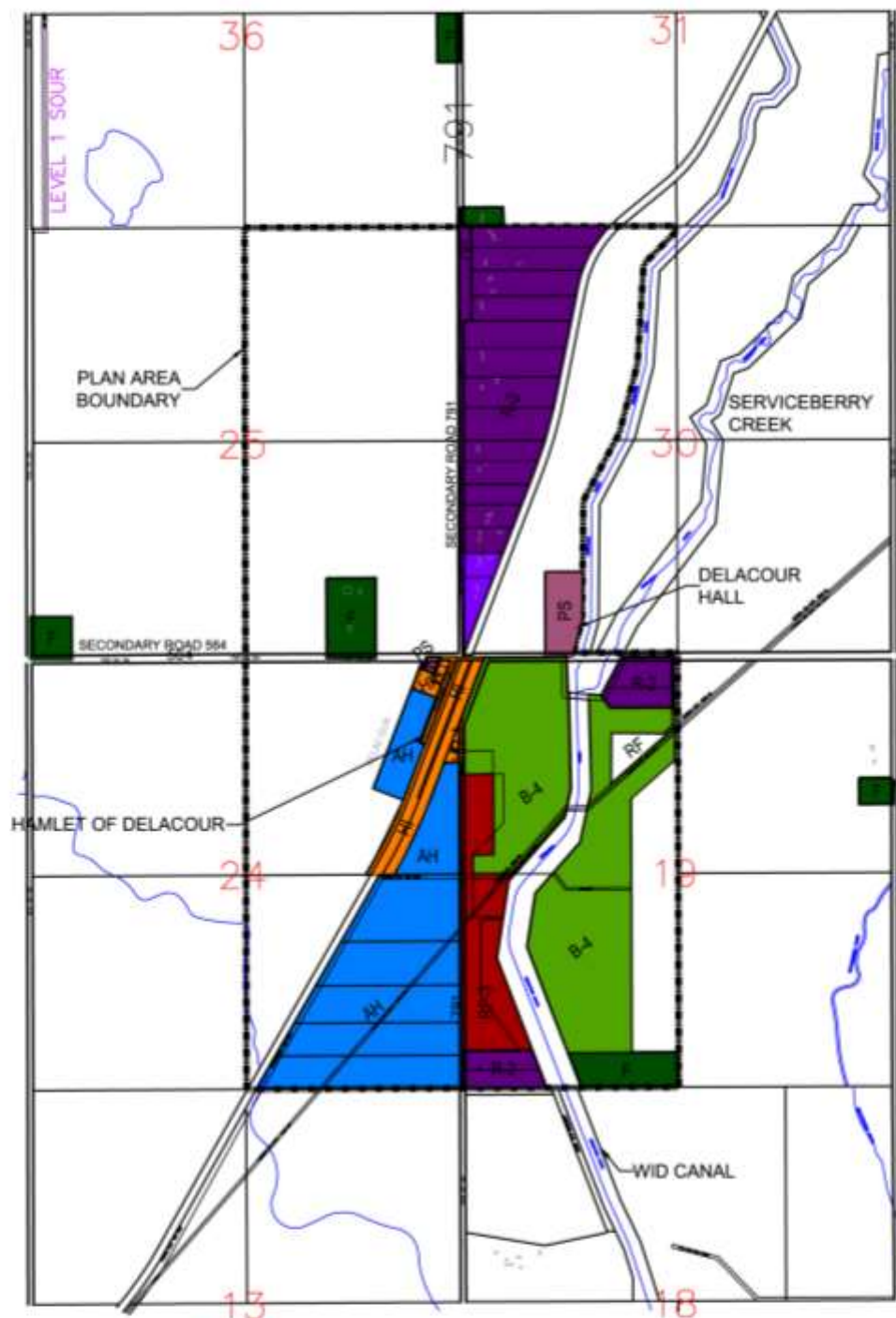
Table 1.0 Summary of Water Well Data

Map Well ID	ACNV Well ID	Location	Well Owner (Water User)	Date Abandoned	Date Completed	Total Depth (ft)	Interval (ft)   Top Aquifer (ft)	Screened Interval (ft)	Lithology	SWL (ft)	PWL (ft)	Pumping Rate (gpm)	Duration of Test (hrs)	Transmissivity (ft <sup>2</sup> /day)	Q <sub>10</sub> (gpm)
43	248813	SW-34-025-27 W4	Brimmage, L (1)		3/25/95	47.3	186	88-100	Sandstone	17.3	45.7	150.0	3.0	21.58	0.31
46	248531	SW-34-025-27 W4	DePue Community Water (1)	11/200	1/10/00	122.3	400	100-136				17.0			0.68
47	248531	SW-34-025-27 W4	DePue Community Water (1)		1/10/00	122.3	400	24-46	Sandstone	3.4	9.7	18.7	7.0	147.31	
<b>24-35-33W-AM</b>															
48	126529	SW-34-025-28 W4	CNR Station (9)			26.5	100		Sandstone	11.2	30.6	24.0	3.0		
49	126529	SW-34-025-28 W4	Alta Water Pool (1)		8/1/87	48.8	100		Sandstone	10.7	16.0	3.0			
50	126529	SW-34-025-28 W4	McClary, M (1)		7/8/85	43.6	143	104-110	Sandstone	12.3	43.6	142.8	4.5	55.52	0.79
51	126529	SW-34-025-28 W4	McClary, M (9)		8/27/85	21.0	97	83-88	Sandstone	13.7	45.0	8.0	3.0		
52	126529	SW-34-025-28 W4	Wallace, J (1)			26.5	120		Sandstone	12.7	35.0				
53	126529	SW-34-025-28 W4	Fernandez, M (1)		4/1/94	36.4	120	33-118	Sandstone	10.7	33.0	10.6	2.0	217.79	2.11
54	126529	SW-34-025-28 W4	Fernandez, M (1)		10/16/96	73.3	240	130-160	Sandstone	11.3	73.3	240.0	3.0	8.61	0.22
55	126529	SW-34-025-28 W4	Radio Construction (1)		8/1/71	37.3	133	102-123	Sandstone	6.4	21.8				
56	126529	SW-34-025-28 W4	Radio Construction (1)		1/19/71	37.3	123	102-123	Sandstone	5.2	17.0				
57	126529	SW-34-025-28 W4	Radio Construction (1)		6/1/71	34.6	120	106-108	Sandstone	8.1	20.0				
58	126529	SW-34-025-28 W4	Radio Construction (1)		4/1/71	42.4	139	106-118	Sandstone	8.8	20.0				
59	126529	SW-34-025-28 W4	Radio Construction (1)		2/1/71	42.5	140	113-150	Sandstone	8.8	20.0				
60	126529	SW-34-025-28 W4	Radio Construction (1)		4/1/71	37.3	123	106-120	Sandstone	7.1	21.4				
61	126529	SW-34-025-28 W4	Radio Construction (1)			37.3	123		Sandstone	6.4	21.8				
62	126529	SW-34-025-28 W4	Radio Construction (1)		3/1/77	37.3	123		Sandstone	5.2	17.0				
63	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	1.0		
64	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	2.0		
65	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
66	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
67	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
68	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
69	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
70	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
71	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
72	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
73	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
74	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
75	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
76	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
77	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
78	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
<b>24-35-33W-AM</b>															
79	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
80	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
81	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		
82	126529	SW-34-025-28 W4	Radio Construction (1)		3/25/77	36.5	100		Sandstone	12.3	30.6	130.0	3.0		

Notes: 1. Barbed 2. Industrial 3. Irrigation 4. Municipal 5. Observation 6. Stock 7. Domestic and Stock 8. Unknown

**APPENDIX B**

**LAND USE ZONING AT PLAN PREPARATION**



LEGEND:

	AGRICULTURAL HOLDINGS DISTRICT		HAMLET INDUSTRIAL/RESIDENTIAL
	RESIDENTIAL 2 DISTRICT		RECREATION BUSINESS DISTRICT
	RESIDENTIAL 1 DISTRICT		PUBLIC SERVICES DISTRICT
	FARMSTEAD DISTRICT		RANCH & FARM 3 DISTRICT



DESIGN  
DRAWN: ANS/KJB  
CHECKED  
APPROVED  
DATE: 2004.10.05  
SCALE: AS SHOWN

CLIENT:  
DELACOUR COMMUNITY AREA  
STRUCTURE PLAN

PLAN AREA  
EXISTING LAND USE

LEGAL DESCRIPTION:  
E 1/2 24, E 1/2 25 TWP 25-R28 W4M,  
and W 1/2 30, W 1/2 19 TWP 25-R 27 W4M

DELIVER FILE NO.

FIGURE NO.  
APP B