



# Yellowhead County

## BYLAW NO. 03.09

### BEING A BY-LAW TO ADOPT AN AREA STRUCTURE PLAN

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

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

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

- 1) That the document entitled "Stonewater Ranch Area Structure Plan", dated ~~December 2008~~ <sup>MARCH 10, 2009 LP</sup> attached hereto as Schedule "A" is hereby adopted as an Area Structure Plan.
- 3) This bylaw comes into force at the beginning of the day that it is passed in accordance with Section 189 of the Municipal Government Act, Being Chapter M-26, R.S.A., 2000.

READ a first time this 27 Day of January A.D., 2009. 

PUBLIC HEARING held this 24 Day of FEBRUARY A.D., 2009.

READ a second time this 24 Day of FEBRUARY A.D., 2009.

READ a third time this 14 Day of APRIL A.D., 2009.

SIGNED this 14 Day of APRIL A.D., 2009.

  
Mayor, Gerald Soroka

  
Chief Administrative Officer, Jack Ramme

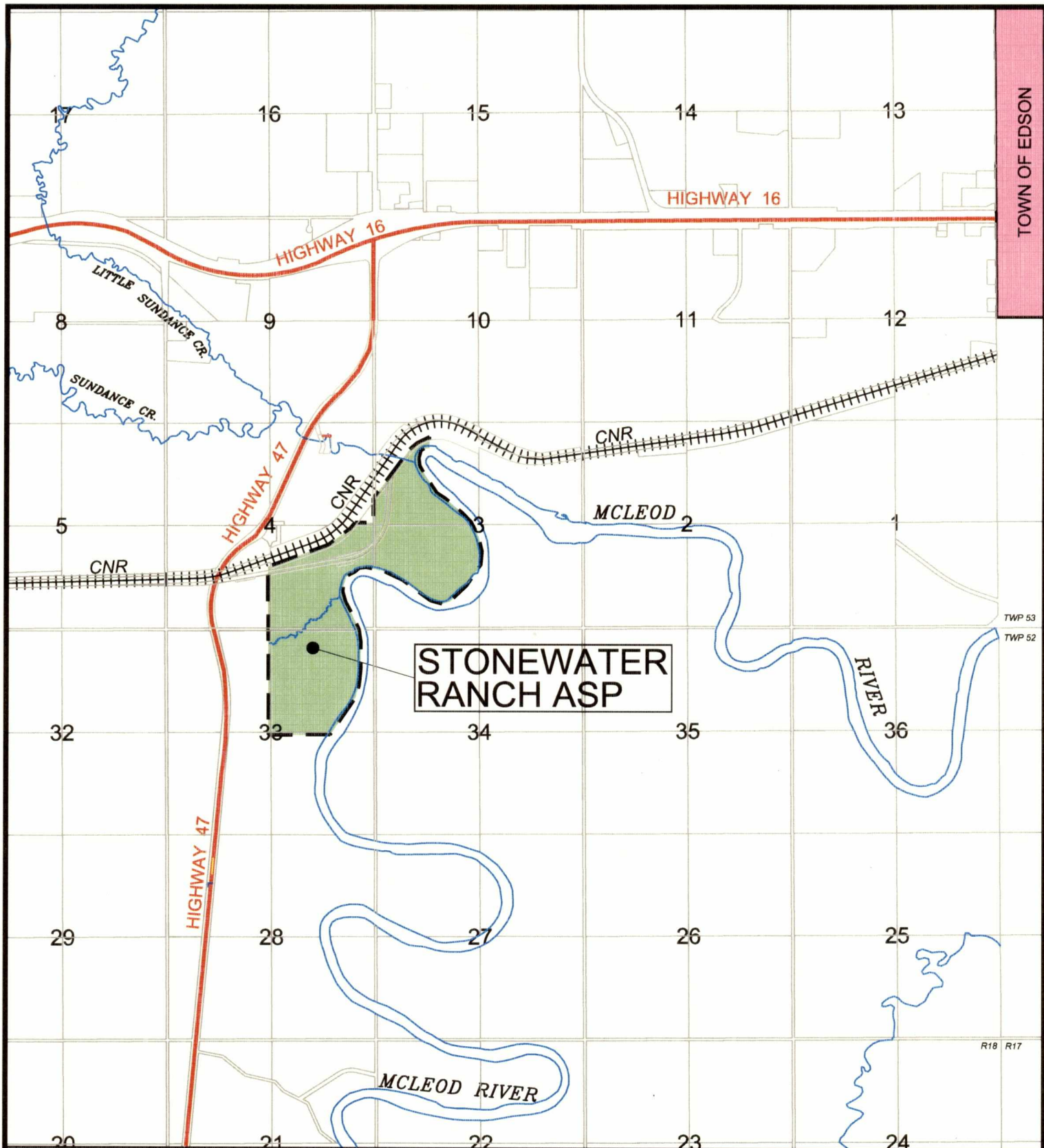
# stone

R A N C H

## **Area Structure Plan**

**March 10, 2009**

**Submitted by:**  
**J.W. Osborne and Associates**



### Legend

HIGHWAY ———  
RAILROAD (CNR) ++++++

## ASP LOCATION Map 1

stonewater  
RANCH

Scale: 1 : 40 000

0 400 800

StoneWaterRanch.dwg

## **Stonewater Ranch Executive Summary**

### **Project Description and Setting**

The Stonewater Ranch Area Structure Plan describes a multi-faceted resort project located 8.8 km southwest of Edson off Highway 47 (Map 1). Located in a remarkable 148.73 hectare (367.5 ac) river valley setting by the McLeod River, the resort features;

- The premier 18 hole golf course and Club house between Edmonton and Jasper
- Complementary commercial, food and beverage facilities to service visitors
- Conference and community events facilities
- A condominium RV Park
- An Equine Centre
- Site for a future hotel
- Single family, multi-family and adult living residential options
- Diverse residential ownership and commercial management options
- Architectural and landscape architecture controls
- Extensive internal and riverside trail system (non-motorized).

### **Surrounding Lands** (Map 2)

The Plan area is surrounded on three sides by Crown land and a CNR rail line to the north. The few residential dwellings to the north and west of the site are visually separated from the Plan area by the CNR line, dense forest and substantial differences in elevation. A Sundance Forest Products mill is located on the opposite bank to the northeast. In addition, surrounding Crown land includes a Forest Management Agreement and oil and gas exploration leases in the area.

### **Site Investigations** (Map 3, 4)

A number of bio-physical and engineering studies were undertaken to evaluate the suitability of the site to accept development of this type. Appendices B to I of this ASP include the studies (under a separate cover). Studies included floodplain, river migration, geotechnical, biological, groundwater assessment, historical resources and traffic impacts were all reviewed.

### **The Land Use Concept** (Map 5)

In addition to the land use components noted earlier, the Plan is expected to be designed in phases over time. The first phase includes the golf course, and initiation of the support commercial, residential and RV Park components. A hotel site and equine centre would follow in future phases. The success of a multi-faceted resort of this type requires time and flexibility to mature. This includes potential re-arrangement of land uses on the landscape and adjusting different residential components based on demand, changing markets, detailed site conditions, etc. As such, the concept plan in Map 5 assumes the County and the developer will stay engaged as the phases are brought on stream.



### **Water, Wastewater and Roads** (Maps 6-9)

The resort will apply best management practices to ensure environmental integrity;

- State of the art piped water and sewer systems with a fully paved road network
- Potable water supplied by groundwater; separate surface water licence for golf course
- State of the art water treatment and wastewater treatment plants located on-site.

Detailed road design standards will be defined at the subdivision design stage. All roads will be paved and designed to allow for proper year round maintenance.

The wastewater and water treatment plants as well as the majority of water and sewer pipes, stormwater facilities and roads will be turned over to the County as public facilities. The one exception is the RV Park, which will contain private roads and water and sewer distribution lines.

### **Environmental and Stormwater Management**

Stonewater Ranch is aware of the special setting and environmental awareness. The resort incorporates the following features;

- Water Recycling - Reduce use of the river for golf course irrigation by treating and re-using stormwater and treated wastewater wherever possible in accordance with Provincial standards
- Greywater Recycling – The project will further examine opportunities of using “process water” from safe sources and using it for domestic irrigation
- Golf Course Turf Management - Golf course would be primarily fed with organic fertilizers and selected grass varieties resulting in a significant reduction in the use of herbicides & pesticides
- Non-motorized trail system – Encourage walking and cycling to move about the resort wherever possible.
- Low Flow Fixtures and Energy Efficient Appliances – ‘EnerGuide’ standards and low-flow fixtures mandatory
- Energy Efficient Building Design - LEED silver standard as the minimum target for energy efficiency
- Fire Smart Compliance On Site – Firesmart principles will be respected.
- Night-time Lighting - Protection from intrusive lighting using [www.darksky.org](http://www.darksky.org) principles

### **Implementation**

The Plan calls for five new land use districts that reflect the specialized vision of the resort development. Appendix A of this ASP (under separate cover) defines the new land use districts that will govern development permits.

A future design exercise will provide added detail to the Resort Centre as shown on Map 5. This will include urban design, architectural and landscaping components.

The resort will first be subdivided into land use components that reflect different lines of business as well as a subdivision agreement to address servicing matters. These components will set the stage for phased development within each component.

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## **MAPS**

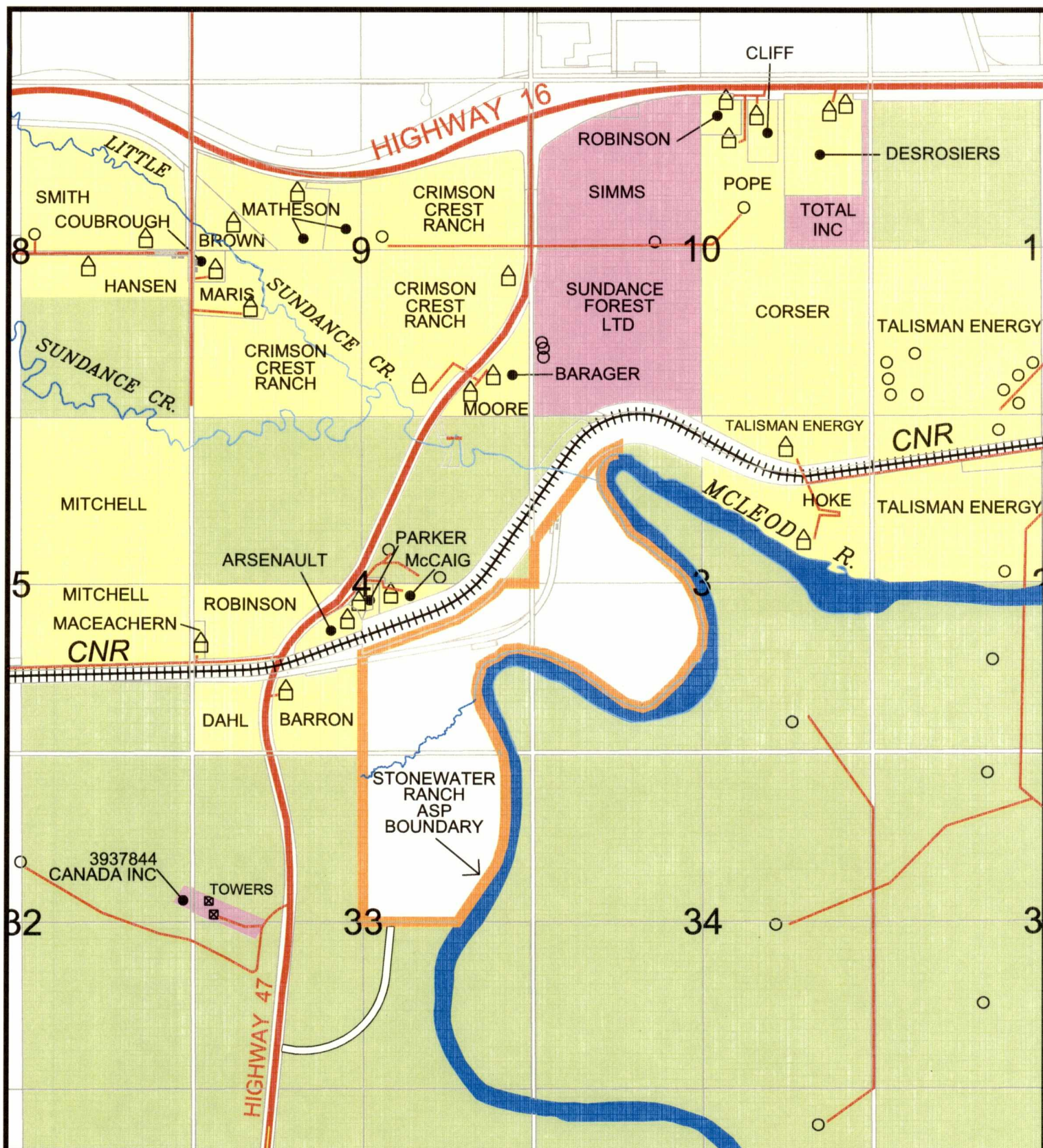
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## **APPENDICES IN SUPPORT OF THE ASP**

**(NOTE; under separate cover and not forming part of this ASP bylaw)**

- Appendix A - Proposed New Land Use Bylaw Districts and LUB District Map Amendments
- Appendix B - Transportation Impact Assessment – Genivar (formerly EXH)
- Appendix C - Groundwater Supply Assessment.– HCL Ltd.
- Appendix D - Geotechnical Review – P. Machibroda Engineering Ltd.
- Appendix E - Floodplain Assessment – Sameng Engineering Ltd.
- Appendix F - Biophysical Review – EcoMark Ltd.
- Appendix G - Phase 1 Environmental Site Assessment – AMEC
- Appendix H - Historical Resources Inventory (with clearance notice)
- Appendix I - River Migration Report – Sameng Engineering
- Appendix J - Community Consultation Process



### Legend



PROPOSED PUBLIC ROAD  
ACCESS TO ASP AREA



NONRESIDENTIAL / NONAGRICULTURAL



RESIDENTIAL / AGRICULTURAL



CROWN LAND



DWELLING



OIL or GAS WELL

## EXISTING LAND USE & OWNERSHIP Map 2

stonewater  
RANCH

Scale: 1 : 25 000

0 250 500

StoneWaterRanch.dwg



## **1.0 INTRODUCTION**

### **1.1 How To Use This Document**

This Area Structure Plan (ASP) is divided into three parts:

- i. background information to answer the questions “what exists now?” (sections 1-3) and “how does it influence development potential?” (section 4);
- ii. an explanation of the Plan Concept in conversational terms (section 5); and,
- iii. a set of specific, enforceable policies (section 6) to guide the Subdivision and Development Authorities in their decisions. These implementation policies direct the County and Developer to undertake specific actions that are required to ensure the area develops as intended by the ASP.

More detailed supporting information is located in an Appendix document under a separate cover. This includes the Stonewater Ranch ASP:

- Proposed New Land Use Bylaw Districts and LUB District Map Amendments
- Transportation Impact Assessment – Genivar
- Groundwater Supply Assessment – HCL Ltd.
- Geotechnical Review – P. Machibroda Engineering Ltd.
- Floodplain Assessment – Sameng Engineering Ltd.
- Biophysical Review – EcoMark Ltd.
- Phase 1 Environmental Site Assessment – AMEC
- Historical Resources Inventory (with clearance notice)
- River Migration Report - Sameng Engineering Ltd.
- Community Consultation Process

### **1.2 Project Intent**

It is the Developer’s intention to complete all aspects of the development at Stonewater Ranch to the highest practical standards. The ultimate goal of the project is to produce a high quality residential/ recreation development that offers a variety of experiences for local residents as well as recreational users from not only Alberta, but all of North America. The Plan is to execute the project in a series of phases. This ASP document



describes the Developer's intentions for the project to a level of detail appropriate to this aspect of project approval.

### **1.3 The General Setting and Project History (Map1)**

The subject property is located approximately 9 km southwest of Edson on a paved portion of Highway 47 and 4 km south of the grade-separated intersection of Highway 16 and Highway 47. The project area specifically includes pt NE33-52-18-W5M, pt SE4-53-18-W5M, and pt. w1/2 3-53-18-W5M.

Highway 16 is a major branch of the Trans Canada Highway while Highway 47 is an increasingly active access route to Robb, Cadomin and Highway 40 for industrial and recreation users. The project site is bounded by the CNR rail line to the north and mostly Crown land on all other sides. Sundance Forest Products operates a mill on a quarter section to the north. The quarter to the north of the Sundance mill contains an industrial subdivision owned by Simms Road Maintenance. Further east, Talisman Energy operates a gas plant that draws product from a large area surrounding the study area. However, no well sites are located on the project site. One rural residential parcel is located adjacent to the site and three others are located to the north of the CNR line. No other residences are in proximity to or within view of the study area.



**Stonewater Ranch ASP Study Area**

The project site itself is comprised of 148.73 hectare (367.5 ac) across four major parcels plus an additional 5 hectares (12.5 ac) of land that has been acquired by the developer from CNR. It is located entirely within the McLeod River valley and, with the exception of the CNR line and one deeded parcel, is surrounded on all sides by Crown land. Highway 47 currently provides indirect access from the north end of the property across a private road crossing under an agreement with CNR. The solitude of the site, its river valley setting and its distance from potential conflicting residential uses offers a uniquely suitable site for the proposed concept.

Past use of the site included pasturing and timber harvest. Some previous studies were undertaken by previous landowners for the purposes of developing the site. However, J.W. Osborne Land Ltd purchased the land in 2007 and immediately commenced

planning a vision for the land. The developer assembled a development team and over the period of 2007 and 2008 undertook the necessary background studies to demonstrate suitability of the land for the intended uses.

## **1.4 Existing Municipal Policy Framework**

### **1.4.1 Municipal Development Plan (MDP)**

Yellowhead County revised its MDP in 2006. The current MDP identifies the subject property as part of the **Foothills Policy Area** north of Township 52 and **Crown Land Policy Area** south of Township 52. This split of the study area into two policy areas appears to be due to the predominance of private land north of the boundary and Crown land ownership south of this. This tag of private ASP land in NE 33-52-18 is assumed to be compatible with the intent of the Foothills Policy Area and the Crown Land Policy Area.

The Foothills Policy Area policy area is considered suitable for residential, resource and commercial recreation uses. The MDP policy for this area states;

#### ***“6.6.1 Background***

*The privately owned land is deemed to have value developed to Country Residential land uses and other suitable commercial recreation uses. Such developments would be situated within easy commuting distance of either Edson or Hinton (depending on the location) making the area ideal for more intensive land uses. However, there are numerous resource extraction uses and other potentially conflicting land uses in this area which need to be taken into account when considering any new development.”*

#### ***“6.6.2(a) Objectives***

*Support residential as the primary land use in this policy area.*

#### ***“6.6.3Policies***

*(a) Support country residential, home based businesses, recreation and tourism uses in the Foothills Policy Area.”*

*(h)Encourage applicants for Country Residential subdivisions to preserve natural areas, environmentally sensitive areas and significant view corridors by incorporate cluster design in their applications.”*

The MDP is clear that this policy area is suitable for the tourism, residential and commercial components contemplated in this project. The potential for conflict with industrial uses is noted as well as natural area values. This is further addressed in a separate section of the ASP.

The Crown Land Policy Area south of Township 52 responds to the Forest Management Agreements (FMAs) and resource leases that cover a large portion of the lands in the western portion of the County. The MDP policy for this area states;

*“6.9.2 Objectives*

*(a) Ensure the viability of Crown Land in the County for a wide range of interests and users;*

*(b) Develop policies and procedures designed to diminish conflicts between residents and industry...”*

The Policies within this policy area appear geared towards integrating Provincial and County Policy, protecting the Crown land base for future land uses that add value to the economy while minimizing conflicting land uses. The ASP proposal is located on private land at the interface of Crown and Private land base. The McLeod River on the east would require a visual buffer setback to timber harvest or oil and gas extraction. The Crown land to the west up to Highway 47 is a narrow strip that will likely see little extractive industry in this narrow stretch. It is therefore assumed that there is little in the way of future conflict with further timber and oil and gas extractive uses.

1.4.2 Land Use Bylaw (LUB)

The ASP area is entirely zoned Rural District (RD). The existing use on the site is pasture/bush and does not contain any non-conforming uses. The RD district is the basic district typically applied to private or Crown land in the County and is intended for general rural uses including such uses as agriculture, low density industrial and residential. This district applies to land to the west and south of the ASP. The land to the east side of Hwy 47 and west of the McLeod River and south in Township 52 is primarily Crown land as part of the RD district and may be considered zoned as Forestry District (FD). This District recognizes land within the Provincial “Green Zone”.

To the north across the CNR line, the zoning is Rural Industrial District (RI), home to Sundance Forest Ltd and further north, general industrial use subdivision owned by Simms Road Maintenance Ltd.

### **1.5 Community Consultation Process**

Throughout the ASP preparation process, the developer has contacted all the adjacent landowners. The developer has contacted and met with representatives of Sundance Forest Industries Ltd. and Talisman Energy Inc. The applicant has also met often with representatives of Alberta Sustainable Resource Development with respect to the application of a Licence of Occupation for an access road onto the site as well as an Alberta Tourism and Recreation Lease process (ATRL) for use of Crown land for equestrian trails.

In November and December 2008, the applicant advertised in the local newspapers and held a public meeting in Edson on December 11, 08. A total of 18 residents attended the open house and public presentation. Questions were taken and the project was discussed at length. Comments sheets were distributed and four were returned. The ASP was submitted to Yellowhead County in January, 2009 for readings by County Council.

The applicant has maintained communications with adjacent landowners and will continue this relationship as the resort grows.



## **2.0 EXISTING PHYSICAL SITE CHARACTERISTICS**

### **2.1 Topography and Drainage (Map3)**

The study area primarily consists of the McLeod River valley bottom, edged by steep slopes to the north and west. The origins of the site appear to be from alluvial deposits overlying bedrock. The land surface of the site slopes generally towards the McLeod River. An examination of the existing ground contours reveals that the maximum relief across the site was approximately 44 metres (144ft) from 942m in the northwest portion of the site to 898m in the northeast corner. Based on the ground surface contours, general surface drainage appears to be towards the McLeod River.

### **2.2 Geotechnical Analysis**

#### **2.2.1 Geology and Stratigraphy**

P. Machibroda Engineers were contracted to provide a geotechnical analysis of the site. The full report is available under a separate cover as **Appendix D** to this ASP bylaw. This drilling examination was conducted in March 2008 with follow up water table examination in April 2008. The report states that alluvial deposits of river sand, some silt with minor gravel lenses as well as lacustrine deposits of clay, silt and sand are common within the vicinity of the subject property. The surficial deposits can range in thickness of 0 to 15 metres. The near-surface bedrock throughout most of the region consists of non-marine deposits of sandstone, siltstone and mudstone of the upper Paskapoo Formation.

An examination of the field drill logs revealed that the general subgrade soil conditions consisted of topsoil overlying variable deposits of sand, clay, silt, glacial till and/or gravel within the upper 6 metres of the soil profile. Sandstone bedrock was encountered beneath the surficial deposits at depths of about 10.2 to 11.4 metres below existing grade. Augur refusal was encountered in sandstone at 12.6 metres below existing ground surface. This was the maximum depth explored with the test holes. Generally,



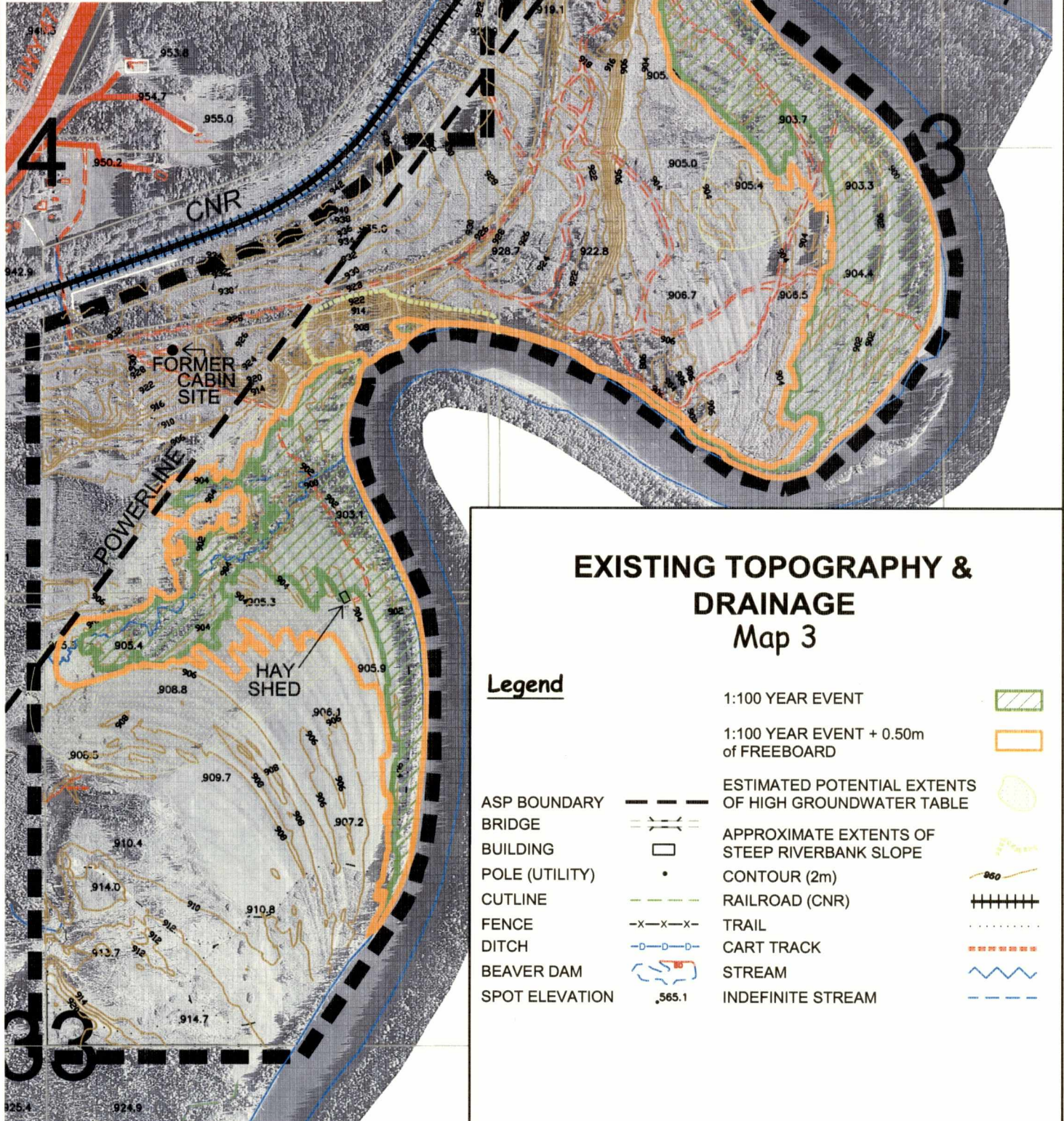
# Stonewater Ranch Area Structure Plan

Scale: 1 : 10 000

0 100 200 300 400

File: StonewaterRanch.dwg

stonewater  
RANCH



## EXISTING TOPOGRAPHY & DRAINAGE Map 3

### Legend

ASP BOUNDARY	---	1:100 YEAR EVENT	
BRIDGE	==X==	1:100 YEAR EVENT + 0.50m of FREEBOARD	
BUILDING		ESTIMATED POTENTIAL EXTENTS OF HIGH GROUNDWATER TABLE	
POLE (UTILITY)	•	APPROXIMATE EXTENTS OF STEEP RIVERBANK SLOPE	
CUTLINE	---	CONTOUR (2m)	
FENCE	-X-X-X-	RAILROAD (CNR)	
DITCH	-D-D-D-	TRAIL	
BEAVER DAM		CART TRACK	
SPOT ELEVATION	565.1	STREAM	
		INDEFINITE STREAM	



the site soils are considered suitable for conventional construction of roads and structures.

### 2.2.2 Near Surface Groundwater

Groundwater seepage and sloughing conditions were encountered during test drilling. The areas that have potential for groundwater higher than 2.4 metres is shown in Map3 and the geotechnical report in Appendix D. The depths at which the groundwater seepage and sloughing conditions were encountered at between 1.5 metres to 12 metres and greater. A summary of the groundwater levels recorded in the piezometers installed during the investigation is also included in the report. A more detailed review of the groundwater levels will be addressed at the subdivision and grading stages with the objective to clarify the areas most susceptible and also to re-grade the site as needed to establish the needed elevations.

### 2.2.3 Slope Stability

The site contains several areas of moderate to steep slopes. The geotechnical report identified one specific area that had experienced vertical movement. This is identified in Map 3 as the narrow “waist” of the study area adjacent to the river bank in SE 4-53-18. A theoretical slope stability analysis was performed for this area. The resulting recommendation established site treatment and engineered setback distances for roads and buildings.

## **2.3 Floodplain and River Erosion Analysis**

Sameng Inc. was retained in 2007 to delineate the floodplain within the study area. They provided their final report in May 2008. In order to obtain construction approval for this development, the extents of the McLeod River floodplain needed to be established to determine areas suitable for various development intensity. The full report is available under a separate cover as **Appendix E** to this ASP bylaw. Map 3 identifies the extent of the 1:100 year floodplain plus a 0.5 metre freeboard.

### 2.3.1 Riverbank Description

Most of the area designated for construction of this development has already been stripped; however, treed areas surrounding the development have been left in place.

The McLeod River, at the east boundary of the development, flows in a northeasterly direction. The river is fairly wide at this location, with an approximate 150 m top width and an average bank height of 5 metres. Bank height however, is variable and some low bank elevation areas exist, particularly in the area surrounding the inflowing tributary located at NE 33-52-18 W5 and SE 4-53 18 W5.

The river has a meandering pattern and at least two significant bends are located along the development. The river appears to be deeply entrenched in its valley and sedimentation was not identified as an issue of concern, as large deposition areas were not observed in aerial photographs. A 300 m long island is located in the river at the SW 4-53-18-5, near the east most point of the development. The island has an average width of 30 m.

### 2.3.2 Basin Description

The McLeod River, which runs along the east side of the study area, is located within the Athabasca River basin and flows northeast at this location. The basin has an effective drainage area of 5,390 sq km at the development and the confluence of the McLeod River and the Athabasca River is located some 90 km northeast, within the town of Whitecourt. The study reach is located approximately 70 km downstream from the river's headwaters in Jasper National Park. Peak flow events for higher return periods are defined primarily by large rainfall events during the summer months.

### 2.3.3 Floodplain Delineation

EXH Engineering Ltd (now Genivar) carried out a survey of the ASP area and the river bottom at this reach to establish an up-to-date topographic database. This survey included 7 cross sections of the river, covering the entire Plan area. A resulting 1:100 year flow of approximately 2,000 cubic metres/second was estimated for the McLeod River at this reach. This discharge value was used to develop a hydraulic model of the reach.

Map 3 shows the resulting delineation of the flood risk area, based on the modeled water surface profile and the provided topography of the study area. Both the 1:100 year level (green) and 0.50 m of additional freeboard (shown in orange) are presented in the Drawing. This provides a reasonable degree of confidence in the delineation based on model sensitivity to varying parameters.

The results of the evaluation show that most of the development area is located above the 1:100 year water surface elevation. However, some portions of quarter sections NE 33-53-18 W5M, SE 4-53-18 W5M, and NE 3-53-18-W5M are located within the flood risk area and should be taken into consideration for development purposes. The Sameng study also noted that the delineation of the flood risk area is quite irregular at NE 33-53-18 W5M just south of the creek tributary. This irregularity is attributed to the scroll marks of the current terrain, which remain from past river migration. Because of its location with respect to the river, this area (shown on Map3 in orange) would be classified as a flood fringe: it would not become a zone of active flow during flood conditions and would only become submerged as a result of backwater. Hence, limited development *could* occur in the vicinity of this boundary and flood risk should be further mitigated via proactive site grading. The study recommended that a lot re-grading plan be developed for the subdivision. This could then redefine the floodplain and thus may be able to be removed from the flood risk zone.

#### 2.3.4 River Bank Migration Analysis

Sameng Ltd was retained to prepare a river bank migration report for the ASP area. The final report was submitted in August, 2008 and is available under a separate cover as **Appendix I** to this ASP bylaw.

The bend located in the vicinity of Stonewater Creek shows evidence of significant erosion and localized slumping. Geotechnical investigations confirmed that there is a high potential for erosion of the bank at this location. Sameng has established a minimum recommended setback for development. Given the instability of the banks in



the vicinity of this creek, it is recommended that no residential units be constructed within the area identified in Drawing A-2 of the report (see Appendix I). The area could be reserved for recreational facilities with no permanent construction.

Lot grading and stormwater management plans should be designed to minimize surface runoff directed towards the eroding banks at Bend # 2. Site drainage should be directed away from the crest of the slope, and no filling or disturbance of the existing vegetation should occur.

## **2.4 Agricultural Capability and Soils**

The historical land use has been improved pasture and native bush with some logging that has occurred in the past. Other areas of steep slopes, a transmission power line, limited access and creek drainages have constrained the agricultural productivity of the land. A review of the Rural Farmland Assessment reveals that a total of 107 acres is listed as improved pasture at 33% RFA capable of accommodating a grazing capacity of 10 acres per head of cattle. The remaining 238 acres that was subject to County assessment was rated at 5.5% RFA and capable of accommodating a grazing capacity of 60 acres per head of cattle. Overall, this land is considered to have low capability for agricultural production.

## **2.5 Groundwater Supply Analysis**

### **2.5.1 Study Limitations**

Hydrological Consultants Ltd. (HCL) was retained to prepare a preliminary groundwater supply analysis based on existing data of 29 lots in 16 surrounding quarter sections as well as reviewing other existing hydrological reports for the area. The final report was submitted in December 2007 and is available under a separate cover as **Appendix C** to this ASP bylaw. This report is a preliminary assessment that will be augmented at the subdivision stage by a more detailed groundwater investigation including test wells and

a separate report in order to satisfy the full requirements under section 23(3) of the *Water Act*.

### 2.5.2 Methodology

The groundwater database, maintained by the Groundwater Centre, is an enhanced version of the Alberta Environment (AENV) groundwater database and shows that, in the 12 section area of interest (AOI), there are 105 groundwater records. Of these 105 records, 95 are classified as being records that are for water wells.

### 2.5.3 Availability Assessment

In 1984 and 1989, HCL encountered the Big Eddy Aquifer that extends from the Town of Edson to 3,000 metres west of the Town's perimeter. The Big Eddy Aquifer is a high-permeability fractured sandstone bedrock aquifer of limited areal extent. The long-term yield of a water well completed in the Big Eddy Aquifer in NE 03-053-18 W5M is approximately 570 litres per minute (lpm), 820 m<sup>3</sup>/day, with a transmissivity of  $1.1 \times 10^3$  mVday. The studies also showed that the Aquifer is of limited areal extent, does not have direct hydraulic connection with the McLeod River and that recharge to the Aquifer is in the order of 800 mVday (HCL, 1989). Groundwaters from the Big Eddy Aquifer are of a sodium potassium-bicarbonate type, with a total filtrable residue concentration that is in the order of 650 milligrams per litre (mg/L).

In summary, the existing data suggest that an adequate supply of groundwater is available for the development of approximately 1,025 lots. This is based on the Big Eddy Aquifer being present under the entire proposed development and that other aquifers are also present. There are indications that other aquifers, in addition to the Big Eddy Aquifer, are present in the area of interest.

## **2.6 Biophysical and Phase 1 Environmental Site Assessment (ESA)**

Ecomark Ltd. was retained to prepare a bio-physical assessment for the ASP area. The final report was submitted in May 20, 2008 and is available under a separate cover as **Appendix F** to this ASP bylaw. In addition, AMEC Earth and Environmental was retained to prepare a Phase 1 Environmental Site assessment. The final report was submitted in July, 2007 and is available under a separate cover as **Appendix G** to this ASP bylaw. With respect to the Phase 1 ESA, AMEC found no environmental concerns on the site requiring a Phase 2 ESA.

With respect to the Ecomark biophysical assessment, the following summary provides context to the ecological landscape.

The two most valuable vegetative features on or near the subject property are the riparian areas along McLeod River, Sundance Creek, and the unnamed creek at the southern portion of the subject property, and the remaining mature mixed wood forests on the subject property. Loss of open areas, hayfields, and second growth forests are a consequence of development and should not impact the ecological integrity of surrounding areas.

Due to its high value to plants and wildlife, the riparian area along McLeod River should be designated as Environmental Reserve Easement (ERE) land use in order to maintain all existing mature forest vegetation along the shoreline property. As the south-facing sandy area at central portion of the subject property is particularly susceptible to erosion, the combined riparian area buffer should extend to 30 meters in this area. Similarly, a 15-meter combined riparian area buffer should be maintained along Sundance Creek and a 6-meter riparian area buffer (on each side) should be maintained along the unnamed creek.

Under the *Public Lands Act*, the Province owns all shorelines with a defined bed and bank and regulates any activity that may affect them. If the proposed development is to

impact any of the existing shoreline, an application to modify the shoreline should be submitted to Alberta Sustainable Resource Development for approval prior to development. Similarly, if development may potentially impact fish habitat on the subject property, authorization from Fisheries and Oceans Canada under the *Fisheries Act* will be required.

Where possible, the remaining mature mixed wood forests on the subject property should be retained as these areas promote biodiversity and provide suitable habitat for wildlife. If these areas cannot be incorporated into development, removal of trees should be avoided during bird nesting seasons (April 15 to August 15), where possible.

## **2.7 Heritage Resources Analysis**

Alberta Western Heritage Inc. was retained to prepare a Historical Resources Assessment for the ASP area (see *Archaeological Research Permit 2006-107*).

The final report was submitted in June, 2006 as part of a submission for a previous draft ASP application by Patterson Associates Consulting Engineers for the purposes of an RV Park and associated recreational development having a similar development footprint as the current ASP. The complete report is available under a separate cover as **Appendix H** to this ASP bylaw. In addition, Appendix H also includes a clearance letter dated September 11, 2007 from Margret Ingibergsson with the (now) Provincial Department of Culture and Community Spirit. The letter states that....*"There are no previously recorded historic resources in these quarter sections and as you have identified this land as being previously disturbed, there is low potential to encounter intact historic resources"*.

The Alberta Western Heritage Inc. report stated that while no archaeological sites have been previously recorded within the proposed development area, there were reports of an abandoned cabin and anecdotal reports of burials in the area. The aim was to

determine the historical background of the development area and to research the existence and extent of the possible burials. Archaeological investigations consisted of a surface inventory of the planning area and the excavation of 8 backhoe trenches to determine if archaeological remains were present. Additionally, shovel tests were excavated in areas considered to be of high potential which the backhoe could not access.

No graves, or evidence relating to graves was discovered either through field investigations or through archival research. One small prehistoric site consisting of two quartzite flakes was found along the bank of the McLeod River, and will not be affected by the proposed development. An abandoned railway bed and associated platform were also noted. Part of the railway bed will be affected by the proposed development, but it is considered to have low interpretive value.

It is recommended that work proceed as planned, without further concern for archaeological or paleontological sites.

### **3.0 EXISTING HUMAN FEATURES**

#### **3.1 On-Site Features (Map 3)**

Map 3 displays the orthophoto and on-site features. The site has been largely undeveloped. Human activity on site is limited to improved pasture and past logging activity which has resulted in re-growth to aspen and willow. A former cabin and water well site is located in SE 4-53-18 and a hay shelter is located northeast and adjacent to the pasture located in NE 33-52-18. The land is braided with trails assumed to be remnants of past logging activity especially visible in the north half of the site. Access is by way of a private rail crossing at the northwest corner of SE 4-53-18. A 138kV transmission powerline operated by AltaLink crosses the north half of the site and continues southwest to a substation located on the west side of Highway 47. An old CNR rail bed is located in the north half of the site. This rail bed and right of way is being transferred to the developer by CNR and is incorporated into the ASP study area.



The railway trestle spanning Sundance creek evokes a picturesque and nostalgic image of the railway past and present.

Several County road allowances traverse the site. An east/west road allowance is located at the north side of section 33-52-18. A north/south road allowance crosses the study area on the east side of section 4-53-18. Any future development would necessitate a road closure bylaw and disposition of that road allowance by the County and the Province.

### **3.2 Surrounding Land Use and Ownership (Map 2)**

The property is largely surrounded by Crown land and the McLeod River on most sides. A CNR rail line forms the boundary for the ASP to the northwest. The Sundance Forest Products mill is located to the northeast of the subject property and is visible from several viewpoints within the north half of the subject property.

One residential property is adjacent to the site in the SE 4-53-18 and shares a common boundary for approximately 400m. A steep slope and heavy forest cover separates the dwelling from the subject property. While no other dwellings are located adjacent to the property, three other residences are located to the north and separated from the subject property by the CNR rail line. Seven other private land holdings containing 9 residences are located within a half mile of the subject property. However, the topography and vegetation forms a visual buffer from direct view of these residences. The 4.5 km section of Highway 47 between Highway 16 and the south end of the study area provides access to 9 dwellings. No dwellings are located off Highway 47 within one mile south of the study area.

With respect to the uses on Crown land, this area is an active area for oil and gas drilling and facilities. A number of active wells operated by Talisman Energy is located on both private and Crown land. Sundance Forest Ltd has timber rights to the adjacent crown lands. Any lease of lands in the vicinity will require that the FMA holder be compensated for lost acreage.

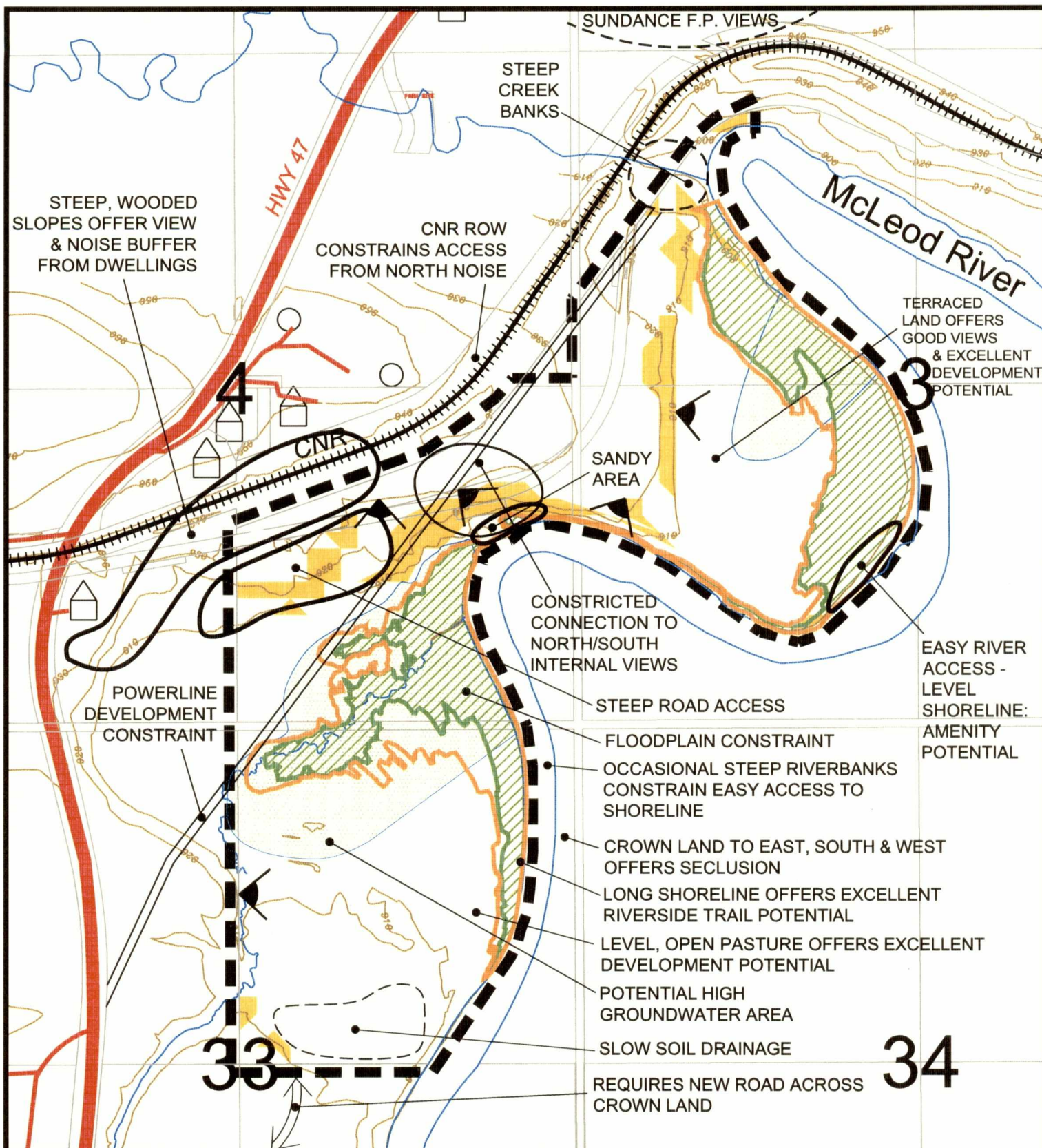
#### **4.0 LAND DEVELOPMENT CAPABILITY (Map 4)**

This section of the ASP reviews the suitability of the site for development potential. It provides an understanding of how well the land is suited to development from a physical and market perspective by identifying the opportunities and constraints both on and off the site.

##### **4.1 Biophysical and Geophysical Capability**

While most of the south part of the study area is relatively flat and offers little topographic constrain to site grading for development, the north half does contain varied topographic relief. The steepest part of the study area is at the narrow waist which will require setbacks for future development. In terms of drainage and near surface groundwater, the results of the floodplain analysis limit development on a significant portion of the river edges and upper reaches of the unnamed creek in the south half of the study area. The areas of suspected high groundwater loosely correlate with this floodplain overlay. However, a closer examination of the near surface groundwater and floodplain areas will be required to finalize the edges of developability in the two areas and a subsequent re-grading plan will define the final edge of high groundwater that will govern the construction of structures, basements and deep utilities. Slow soil drainage in the south end of the ASP area may require the replacement of organic soils. This will also be examined for fill and re-grading at the subdivision stage. The geotechnical report suggests standard construction techniques will be sufficient for the vast majority of the site.

In terms of riparian areas, it is assumed that the existing riverside and creekside trees and actual hydrophilic vegetation will largely be retained in a protective designation and not be developed. The remaining tree cover is on average 20m (66ft) from the edge of shore. This land will be protected in the concept design and subdivision. The areas adjacent to the creek and river that are most prone to floodplain offer excellent components for use as part of a golf course.



### Legend

- DWELLING
- OIL or GAS WELL
- 1:100 YEAR EVENT
- 1:100 YEAR EVENT + 0.50m of FREEBOARD
- SLOPE GRADE >15%

## OPPORTUNITIES AND CONSTRAINTS

### Map 4

ATTRACTIVE VIEWS

CONTOUR (10m)



stonewater  
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#### **4.2 Water, Sewage and Stormwater Capability**

The steady slope of the south pasture and east bench lands offer excellent slope for gravity drainage. The narrow waist potentially divides the site into two service zones. More detailed budgeting will determine whether one or two sewage collection service zones are established.

There is also excellent potential for a pressurized water distribution to be located on the upper benches of the central, northern and eastern ends of the site. The preliminary assessment of the groundwater potential offers a substantial capacity to service over 1000 dwelling units with potable water.

In terms of stormwater capacity, the capture and recycling of stormwater on site is most desirable for the golf course operation. Alberta Environment guidelines will be used. The efficiency of today's package effluent treatment plants offers the opportunity to recycle treated effluent as part of golf course irrigation. This will be further examined in light of Provincial regulations.

#### **4.3 Traffic and Road Capability**

A TIA has been prepared by EXH Engineering Ltd. This assessment reviews the estimated traffic volumes generated by the development at average and peak times immediately after development (2008) and at the 20-year design horizon (2028), the estimated future right-turn manoeuvres for the Highway 47/ Proposed Access Road intersection, the estimated future left-turn manoeuvres for the Highway 47/Proposed Access Road intersection and the appropriate configuration for the analyzed intersections to accommodate traffic immediately after development and at the 20-year design horizon.

#### **4.4 Site Design Considerations**

Multi-user resort concept – The large size of the Stonewater Ranch site coupled with the diverse terrain, water access and view potential makes it suitable for multiple uses

including equestrian, RV park and as a special events and corporate venue. The varied topography, the river valley location and proximity to a water source makes it highly suitable for a second golf course in the Edson area. Its location along Highway 47 serves as a gateway to the Highway 40, Robb and Cadomin recreation areas. Moreover, its proximity to Edson offers a market for local users and its proximity to Edmonton offers a market as a weekend retreat.

Relative seclusion – The Crown land designation surrounding most of the study area offers an important attraction to recreation users and prospective residents alike. The few dwellings in the area are separated by topography and forest.

Hourglass site configuration - The narrow waist that separates the northeast and southwest halves of the site is a design challenge for road and pedestrian connections between the two halves of the area. The existing abandoned rail bed that extends across the waist offers an excellent settled road base above steep slopes to the south while still maintaining minimal encroachment on those steep slopes.

View potential - Since the area has been for the most part, cleared of timber, the northeast end of the site offers attractive, unobstructed and elevated views of the McLeod River to the south and east as well as potential mountain views on upper floors of future development. The view potential for future development is an important design consideration. Land in the West half of 3-53-18 is comprised of terraced benches that offer high-value view potential. The elevated, central location near the waist is an excellent location to concentrate high levels of visitor use. Moreover, the land below the west-side escarpment defines a secluded site that offers natural internal views, a buffer to Highway 47 traffic and a buffer from other dwellings in the area. The view of the railroad trestle offers a final scenic element.

Nuisance Constraints – Several aesthetic constraints are present. This includes the noise associated with the CNR line, the visibility of the Sundance Mill from some viewpoints in the northeast half of the site and the presence of the transmission power



line. While these factors can be partly mitigated on a site specific basis, they are an unavoidable part of a still-charming landscape.

River access – River access for all users of the site is a key amenity. This site has an enormous potential for a riverside trails network to knit together the two halves of the site. The relatively undeveloped, unpolluted upper reaches of the McLeod River offers informal river access for boating, fishing, swimming and passive viewing. At this time, no formal river access facilities are anticipated.

Recycling treated effluent – It is increasingly common to recycle treated effluent for golf course irrigation. This innovative conservation measure is accepted by the Province and offers cost savings.

## **5.0 AREA STRUCTURE PLAN CONCEPT**

### **5.1 Introduction**

Section 5 of this Plan provides the spirit and intent in which the plan policies are written. This section should not be interpreted as policies per-se, but as context to understand the intent of the policies. Section 6 contains the policies that express the specific Plan regulations. Please note that the mapping included in the Plan is conceptual in nature and, due to the distinctive dynamics of successful resort building, will require further adjustments at the subdivision approval and development permit stages.

Stonewater Ranch is a multi-facility resort concept intended to serve local residents as well as national and international markets. Its location along a secluded stretch of the McLeod River valley offers aesthetic appeal while paved access from Highway 16 and Edson via Highway 47 provides excellent direct access for local residents, the destination resort market as well as the southbound and westbound tourist market.

The resort will contain an 18 hole golf course with a clubhouse and commercial service complex (the Resort Centre), an equestrian facility, a recreation vehicle park, plus a single family and two multi-family residential components; a townhouse complex in the south meadow including an adult living complex and an apartment-style condominium in the Resort Centre. Servicing capacity has also been reserved for a 150 unit hotel in the Resort Centre.

### **5.2 Area Structure Plan Guiding Principles**

The design of the resort was guided by several planning principles in mind. These principles respected the vision as a multi-use resort that offered a variety of experiences for multiple target markets. The principles included the following;

Value the aesthetic appeal – First and foremost, the ASP takes full advantage of the aesthetics; river valley shoreline, the forested banks, the creeks traversing the lands as

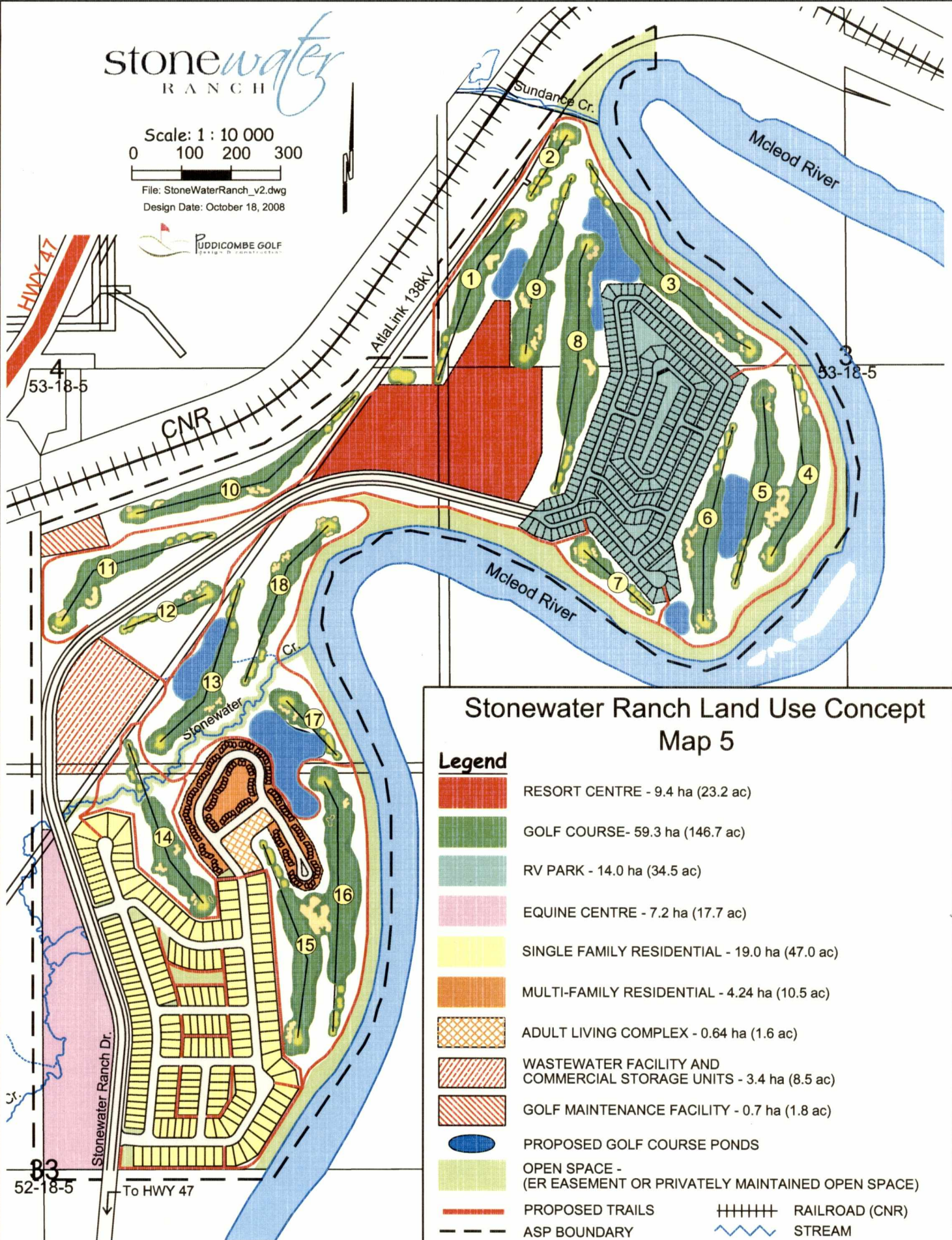
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Design Date: October 18, 2008

PUDDICOMBE GOLF  
design & construction



well as the topography and escarpment. These features lend themselves to an attractive visitation and residential experience in a natural setting.

Work with existing visual and physical attributes - While the setting is within the edge of the Provincial green zone, existing visual constraints are recognized as a fact of life. The 138kV transmission power line, the Sundance mill and the CNR rail line are visual constraints but, given the overall natural setting, do not substantively diminish the overall aesthetics. Provincial requirements for setback buffers for timber harvesting and oil and gas facilities are expected to preserve unblemished views of the river shoreline.

The land is configured into a narrow hourglass waist dividing the site in two distinct geographical areas. While steep and narrow road access and slope stability are important constraints, the two areas also create opportunities for a variety of topography and landscapes that add visual interest. The resort has used this diversity of views, topography and landscapes to its advantage wherever possible.

Do the bio-physical homework - The geotechnical constraints on the site have been fully evaluated and the project is confident of the capacity of the project to work with floodplain, slope stability, river migration and biophysical characteristics of the ASP area. While preliminary water results have noted high confidence levels in the required volumes of potable groundwater to service the resort, any future licence may include allocations for surface water from the river.

Apply Innovative Infrastructure – The proposed package wastewater plants are selected to offer a high degree of treatment for total dissolved solids and biological oxygen demand. In addition, the project will recycle treated wastewater for fairway irrigation. High efficiency fixtures for water, lighting, heating and cooling will be required as part of the design guidelines for all buildings. Trails will access the many viewpoints and offer a logical alternative for travel around the resort.



Meet the needs of visitors – The resort centre will be a multi-use complex offering special events venues for local residents as well as the day to day needs of the short term visitor and residents. Services will include retail/convenience goods, laundromat, and community centre where users can gather and share local events. An RV/mini-storage facility to the south will provide added flexibility and convenience for owners. Potential exists for a hotel and expanded conference facilities in later phases thus cementing its long term regional attraction as far as the Edmonton market.

Design a consistent architectural theme – The design will feature a consistent overall theme to ensure long term value for residents and an attractive ambiance for all users of Stonewater Ranch.

Build the resort one phase at a time – Resort development is a long term, capital intensive investment that is often influenced by changing demographics and economic trends. Realistic servicing requirements and prudent phasing of the project ensures the project will be refined as it gains experience with user preferences and needs. As such, the resort is expected to be constructed over a 5 to 7 year horizon.

### **5.3 The Land Use Concept (see Map 5)**

The Stonewater Ranch Map 5 illustrates the land use concept. Eight separate land use components are included in the concept as follows;

#### **5.3.1 Stonewater Ranch Golf Course and Maintenance Facility (60 ha/ 148.5 ac)**

The goal of the resort is to establish itself as the premier 18 hole golf course between Edmonton and Jasper. Framed by surrounding forest cover and the McLeod River, the course will be a par 72 in the fashion of a “links” course. Six riverside holes are complemented by five creek-side holes, while the remaining holes take advantage of the varied topography and existing mature vegetation to the greatest extent possible.



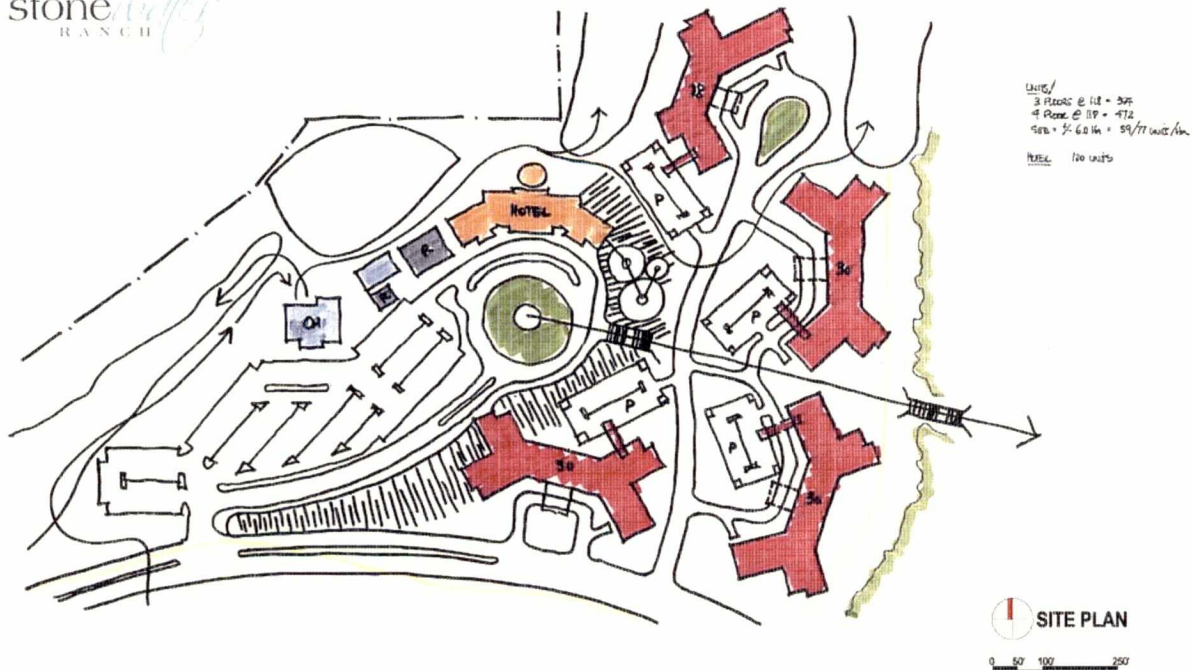
The golf course maintenance facility will serve to maintain green spaces on the golf course and all other green spaces for all other land uses within the resort, thus freeing the County from responsibility associated with Municipal Reserve land.

#### 5.3.2 Resort Centre (9.4 ha/ 23.2 ac)

The heart of the resort will be the Resort Centre composed of the clubhouse and associated service facilities designed in a compact, pedestrian oriented village atmosphere. This resort centre is strategically located adjacent to the RV park, which will be the prime client for commercial support uses. Besides the typical clubhouse uses, this multi-use facility will include a commercial service centre for food and beverage establishments, retail/convenience goods, a laundromat for all visitors, recreation facilities such as a swimming pool/ games/ exercise rooms, tennis courts, multi-purpose rooms for conferences, corporate events, community functions, public gatherings, weddings, etc. The Resort Centre is also featuring a multi-storey complex of up to 475 apartment style condominium units.

The detailed site design and infrastructure allocates a long term capacity for a 150 unit hotel should the demand warrant. This would then offer the opportunity for the expansion of further conference facilities.

A 1.2 hectare (2.96 ac) land-locked parcel is located east of the rail line in the SE corner of the NE4-53-50. This may be available for purchase from the Crown. Successful acquisition of this parcel would result in the Resort Centre being expanded slightly without the need for an amendment to this plan.



**Resort Centre – Initial Concept**

The detailed design of the Resort Centre land use component will occur subsequent to ASP approval. The detailed design will identify the building envelopes, landscaping and architectural standards, vehicle circulation, amenity areas and tenure arrangements. The County will be consulted throughout the process.

### 5.3.3 Recreation Vehicle (RV) Park (14 ha/ 34.5 ac)

A key component of Stonewater Ranch is a gated RV Park that serves a secluded, but dynamic segment of the project. The concept provides for up to 287 fully serviced RV lots in a controlled and secure environment. All internal roads will be paved and lot sizes will be typically 325 sq metres (3500sq ft) in size with typical lot dimensions of 14m x 23m (46ft x 75ft).

While the majority of the lots will be under a condominium arrangement, a management service may offer daily and weekly lot rentals to serve the public for a wide range of visitation durations – daily, weekly, monthly and seasonally. While winter occupancy

would be allowed, the intent is to discourage year round occupancy using enforceable condominium bylaw provisions. This could include length of stay provisions, provisions on the sub-leasing of units and a premium for the servicing of winter occupancy with differential utility charges by the condominium bylaws. The RV park design will include landscaping guidelines for unit owners and guidelines and limitations on the inclusion of appropriate accessory structures. The condominium bylaws will also contain provisions to maintain the integrity of the park and the lifestyles that the majority of the owners will support.

#### 5.3.4 Equine Centre (7.2 ha/ 17.7 ac)

The opportunity for trail riding experiences within the Provincial Green area adjacent to the resort is virtually unlimited. The equine centre will offer trips directly from the resort as well as serving as a staging area for more ambitious trips into the foothills and ranges of the Rocky Mountains. Compatible uses will include a guest ranch containing up to 30 well appointed commercial accommodation cabins, veterinary services, boarding stables and a riding arena. The potential for grazing on adjacent Provincial lease land is part of an ATRL lease application currently in process. This centre will serve as a distinct line of business and may be owner operated, developer owned or syndicated.

#### 5.3.5 Single Family Residential Community (19 ha/ 47 ac)

The resort will offer approximately 196 single family lots served by a public roadway registered as a road plan. The lots will be architecturally controlled, fully serviced and average lot sizes will vary between 560sq. m. (6028sq ft) to 1115sq m (12,000sq ft) with typical lot dimensions of between 14m-20m x 40m (46ft -66ft x 131ft). The single family community will be developed as a bare land condominium and be under an agreement with the golf course to ensure that the maintenance of the internal green space does not become a County responsibility nor as County Municipal Reserve land.

#### 5.3.6 Multi-family Townhouse Residential (4.24 ha/ 10.5 ac), Adult Living Complex (.64 ha (1.6ac) and Resort Centre Apartment Complex

These communities will see up to a total of 650 units of various styles (apartment style, row house, etc) under a potential combination of full condominium and fractional ownership models. A 135 unit townhouse complex is planned for the south meadows while an adjacent 40-unit adult living complex will back onto the 15<sup>th</sup> fairway tee off. Further north, the Resort Centre will contain up to 475 apartment-style units in several clusters.

As with the single family bare land condominium community, the south townhouse multi-family area will be under an agreement with the golf course for maintenance of any internal green space.

#### 5.3.7 Wastewater Facility and Commercial Storage (3.4 ha/ 8.5 ac)

The Wastewater Facility development cell offers sufficient space to serve multiple operational roles including general mini-storage, storage of vehicles, boats, etc. for residents and users of the resort.

#### 5.3.8 Adjacent Crown Land

Crown land in the South half of section 33-52-18-W5M will be used for the main public access road to the resort. In addition, the developer has applied for an ATRL lease for a total of 285.457 Hectares (705.38 Acres) for portions of sections 27, 28 and 33-52-18-W5M between Highway 47 and the McLeod River for purposes of trails in support of the Equine Centre. The lease will be utilized for trail riding in the initial phases of resort development and may offer opportunities for expanded equestrian uses a second golf course and other residential or resort style uses in later phases.

#### **5.4 Water Supply and Distribution Concept (see Map 6A and 6B)**

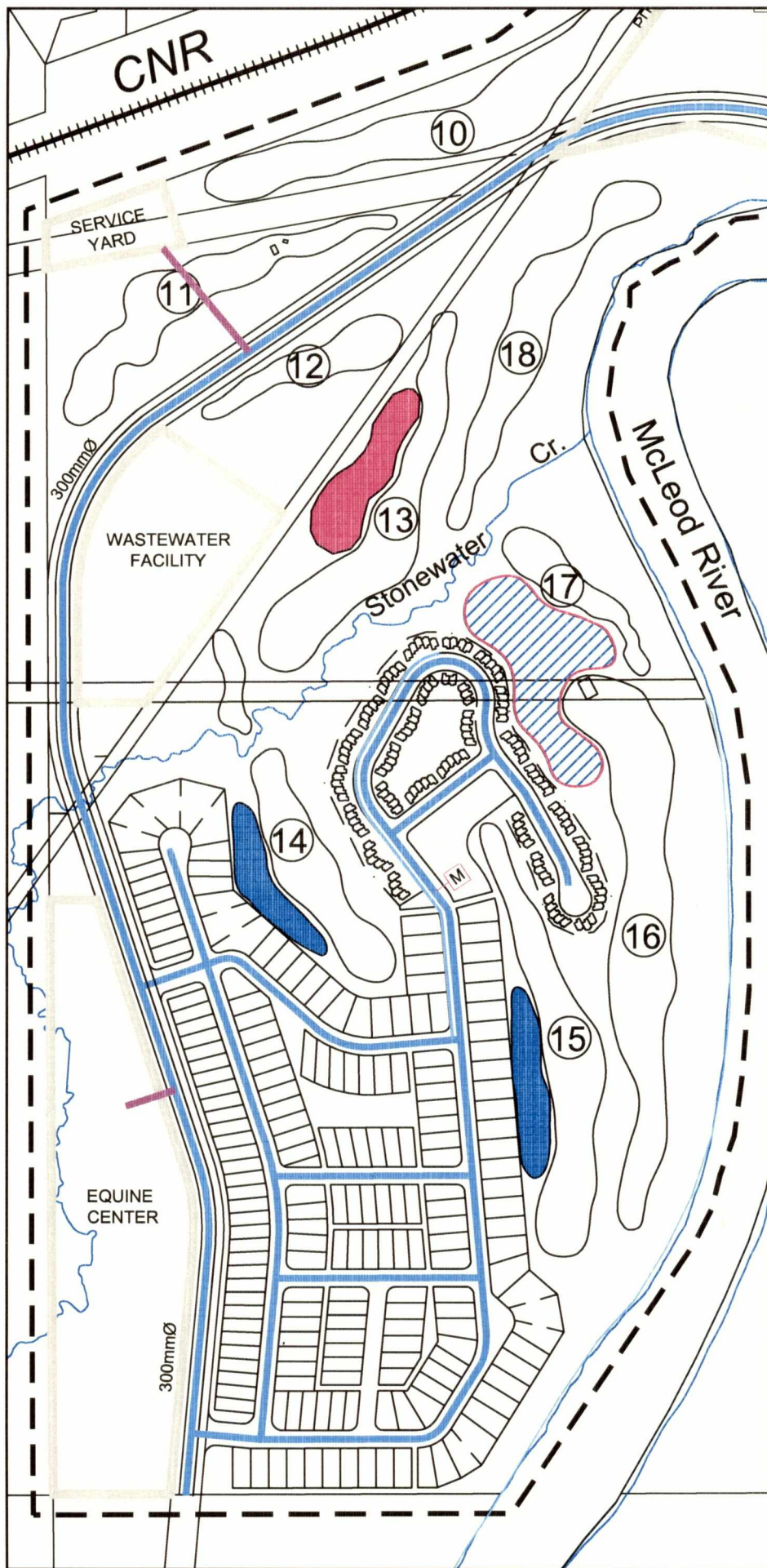
The Water Treatment Facility (pump house and reservoir) location is shown in Map 6B. The distribution system is shown on Map 6A and 6B (Map 6A represents the south half and Map 6B represents the north half of the development). Water will be supplied with a communal water system using a pump house and reservoir supplied by water well(s). Preliminary trunk main sizing is shown on the concept maps. The mains are also categorized as a public utility or a private utility. Water meters would be provided where private utilities join the public system. In addition, the water treatment facility's approximate size of space required and components are shown. Finalized pump house, reservoir design, sizing of mains, pressures and flows will be submitted at detailed design during the first Phase subdivision application. Major trunk waterlines for treated water will be located within the road rights of way wherever feasible so as to minimize overall length and distribution lines for treated water.

The required water licence application and treatment plant approvals will be of sufficient capacity to serve the ultimate stage of the project plus an added margin for flexibility. In support of the licence application, a preliminary groundwater assessment by HCL (see Appendix C for full report) indicates aquifer supply is expected to be mainly by the Big Eddy Aquifer and possibly other aquifers present under the ASP lands.

However, the actual location and number of supply wells will be determined through further investigations by test wells. The required number and location of supply wells will determine whether the entire project can be supplied by groundwater or whether it would need to be augmented with water from the McLeod River.

Future water well drilling and testing as well as the Provincial licensing process for water supply will in part, inform the final location of the water treatment plant and the location of raw water pipelines to serve the plant. This may be located in the Resort Centre. Based on the quality of groundwater determined by well drilling and testing, the water treatment facility may be of two general options. If there is high quality



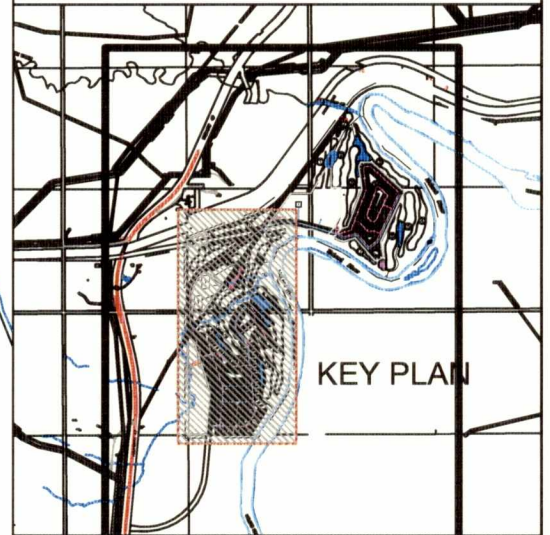


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## South Stonewater Ranch Water Concept Map 6A

### Legend

- PUBLIC UTILITY MAIN
- PRIVATE UTILITY MAIN
- WATER TREATMENT FACILITY
- WATER METER
- EFFLUENT POND
- LANDUSE COMPONENTS
- PROPOSED GOLF COURSE PONDS / STORMWATER
- ASP BOUNDARY
- RAILROAD (CNR)
- STREAM
- SHARED EFFLUENT /STORMWATER POND

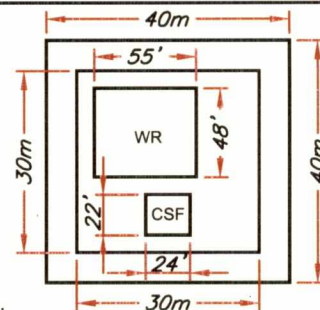


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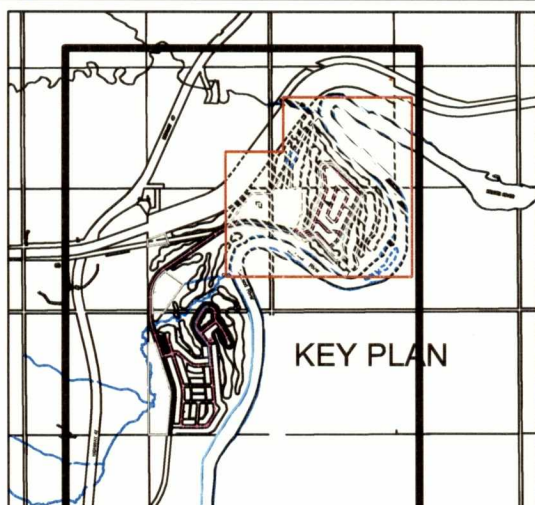
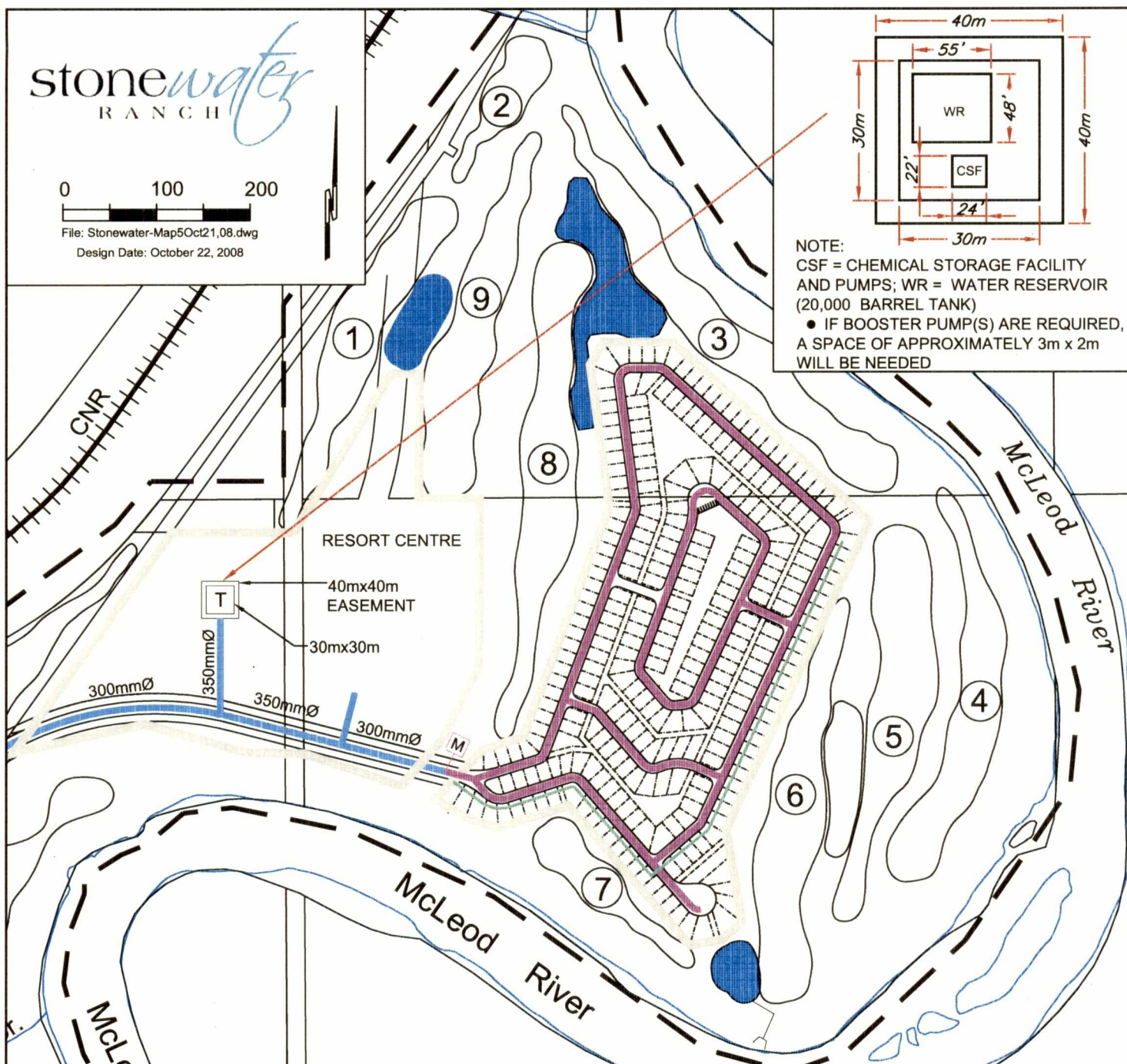
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NOTE:

CSF = CHEMICAL STORAGE FACILITY AND PUMPS; WR = WATER RESERVOIR (20,000 BARREL TANK)

• IF BOOSTER PUMP(S) ARE REQUIRED, A SPACE OF APPROXIMATELY 3m x 2m WILL BE NEEDED



## North Stonewater Ranch Water Concept Map 6B

### Legend

- |  |   |  |                      |
|--|---|--|----------------------|
|  | PUBLIC UTILITY MAIN                     |  | PRIVATE UTILITY MAIN |
|  | WATER TREATMENT FACILITY                |  | STREAM               |
|  | SHARED EFFLUENT / STORMWATER POND       |  | WATER METER          |
|  | LANDUSE COMPONENTS                      |  | OUTFALL PIPE         |
|  | PROPOSED GOLF COURSE / STORMWATER PONDS |  |                      |
|  | ASP BOUNDARY                            |  |                      |
|  | RAILROAD (CNR)                          |  |                      |

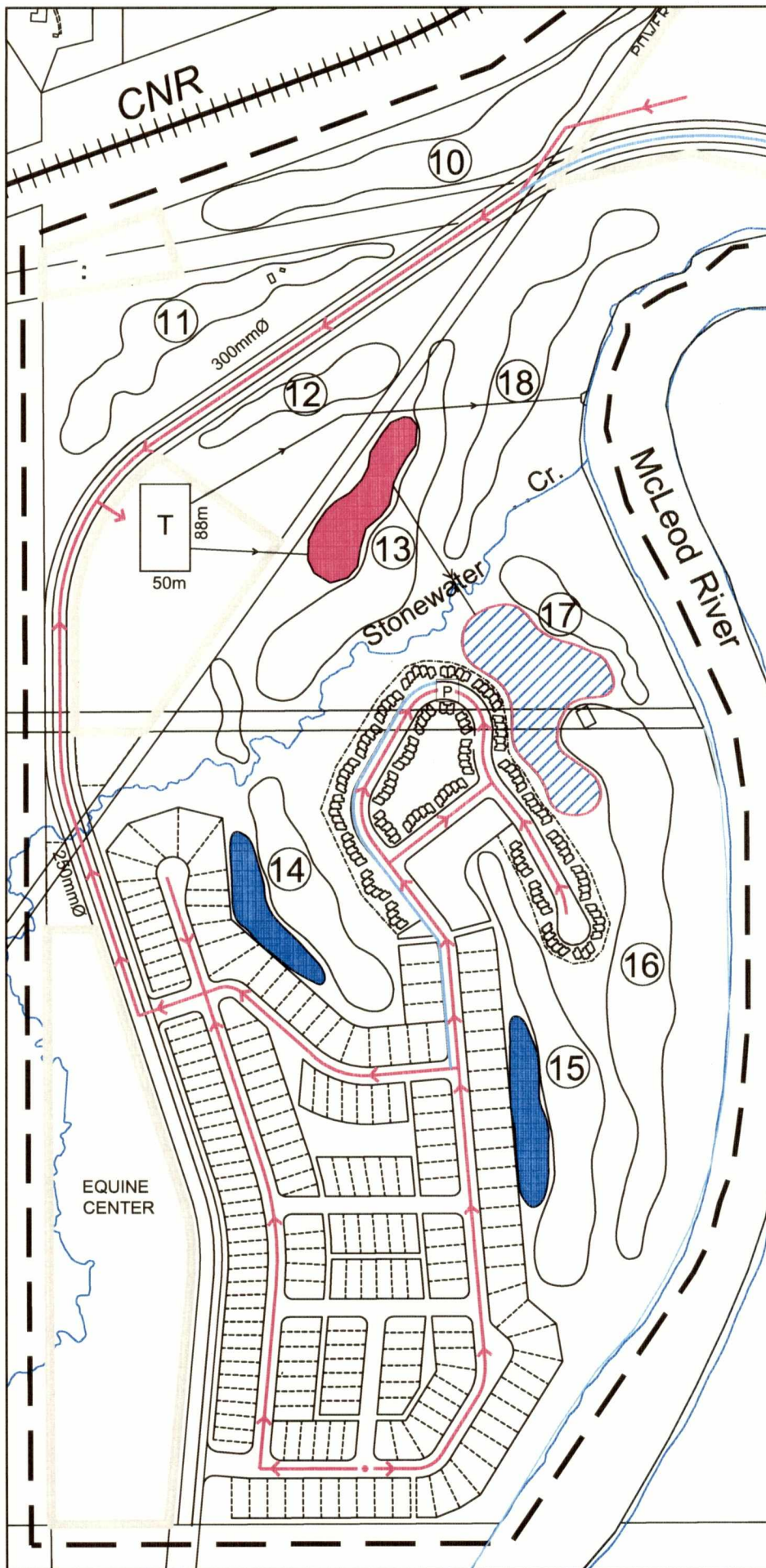
groundwater on-site, the treatment plant will consist of a mixing chamber for addition of chlorine for disinfection, a storage tank for emergency volumes and possibly adding polyphosphates to sequester manganese and iron if needed. If there is low quality groundwater on-site, or a need for usage of river water, there will be a need for filtration, and UV treatment in addition to the mixing chamber and storage facility.

In terms of water for fire flows, prior to subdivision approval, the developer will provide a risk assessment, identify alternative firefighting standards and measure that against the need for full fire flows throughout the entire development. Fire flows for especially high risk areas such as tall buildings and structures with high density occupancy will be by way of reservoirs and pressurized water mains, including the RV Park.

## **5.5 Wastewater Management Concept (see Map 7A and 7B)**

The wastewater servicing concept is identified as Map 7A and 7B (Map 7A represents the south half and map 7B represents the north half of the development). A communal sanitary sewer collection system will be provided by a combination of gravity mains and force mains. The communal wastewater plant would include an equalization tank, biological components and an outfall structure to the McLeod River for excess effluent that would not be used for irrigation. The infrastructure for spray irrigation would also be incorporated into the plant. The plant would provide secondary to tertiary treatment that may require nitrogen phosphate removal based on Alberta Environment recommendations. The plant would be either a package plant or a custom plant which would be based on a cost vs. land coverage analysis. The plant would be designed favourable to staging such that the plant could grow with future development. Additionally, a grey-water system will be reviewed for its feasibility. This would reduce wastewater treatment energy needs and offer a more environmentally friendly system. Sanitary flow from the lots will tie into the system and flow to the proposed sanitary treatment plant. Some development areas will be private, such as the RV Park and Equine Centre, which will tie into the public system. The approximate location of the



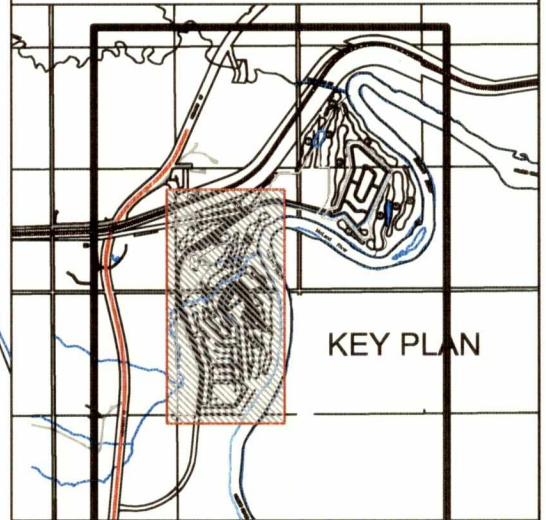


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Design Date: October 22, 2008



KEY PLAN

## South Stonewater Ranch Sanitary Concept Map 7A

### Legend

- PUBLIC FORCEMAIN
- PUBLIC GRAVITY PIPE
- WASTEWATER TREATMENT FACILITY
- PUMP STATION
- EFFLUENT FEEDER LINE
- TREATED EFFLUENT OUTFALL PIPE
- SHARED EFFLUENT /STORMWATER POND
- LANDUSE COMPONENTS
- PROPOSED GOLF COURSE / STORMWATER PONDS
- ASP BOUNDARY
- RAILROAD (CNR)
- STREAM
- EFFLUENT POND

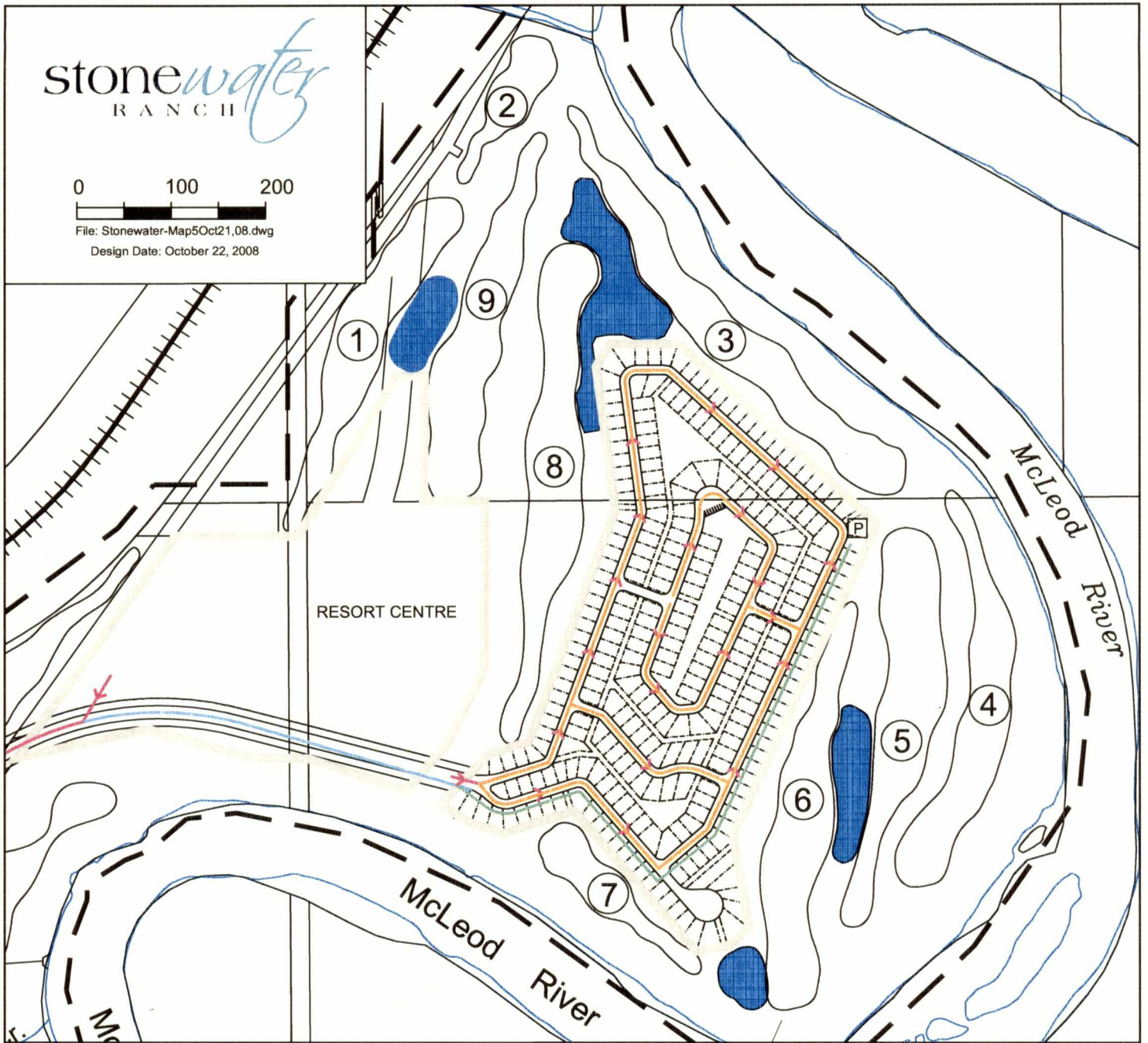


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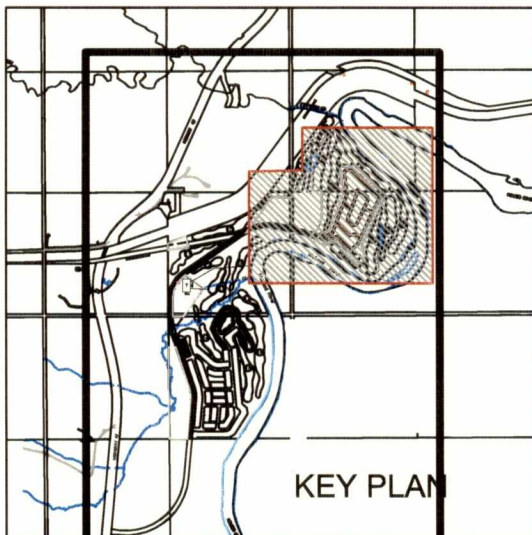
Design Date: October 22, 2008



## North Stonewater Ranch Sanitary Concept Map 7B

### Legend

- PUBLIC GRAVITY PIPE
- PUBLIC FORCEMAIN
- PRIVATE GRAVITY PIPE
- PRIVATE FORCEMAIN
- WASTEWATER TREATMENT FACILITY
- PUMP STATION
- EFFLUENT FEEDER LINE
- TREATED EFFLUENT OUTFALL PIPE
- SHARED EFFLUENT / STORMWATER POND
- EFFLUENT POND
- LANDUSE COMPONENTS
- PROPOSED GOLF COURSE / STORMWATER PONDS
- ASP BOUNDARY
- STREAM





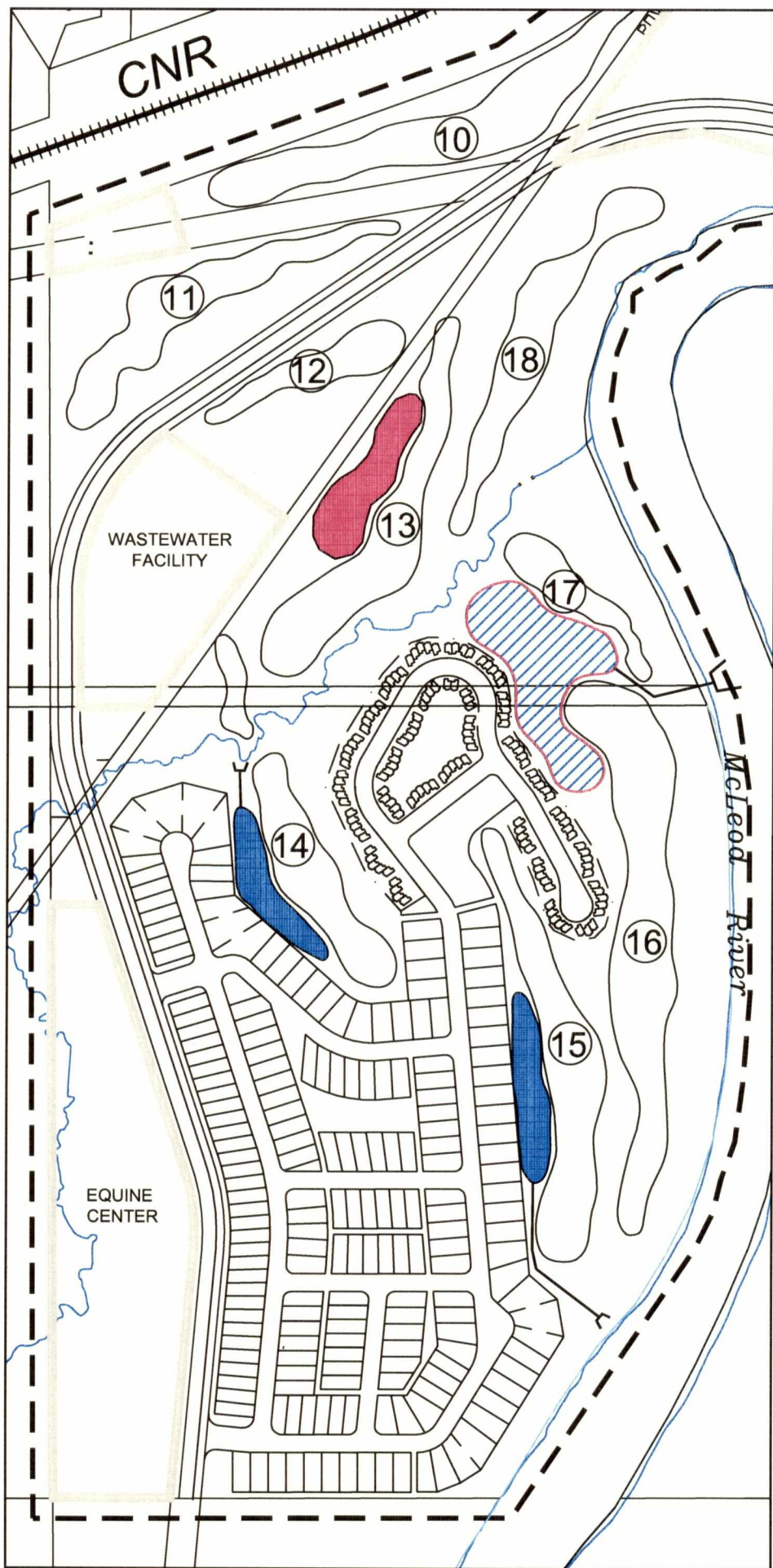
trunk and treatment system is shown in Map 7A. The maps show the approximate locations of where gravity pipe, forcemains and pump stations will be used. The effluent will then be treated to a level accepted by Alberta Environment and be used to irrigate the golf course by storing effluent within the stormwater detention facilities. The sanitary treatment system will be chosen based on acceptance by Alberta Environment and the sizing, flows and treatment plant design for the collection system will be determined at the detailed design phase.

The McLeod River was sampled in triplicate on October 20, 2008 at the location of the proposed treated wastewater outfall to provide an assessment of the McLeod River to determine the wastewater treatment requirements. Upon determination of the treatment requirements, the wastewater treatment plant will be designed based on Alberta Environment's *Standards and Guidelines for Municipal Waterworks, Wastewater, and Storm Drainage Systems*, January 2006 and Alberta Environment's *Surface Water Quality Guidelines for Use in Alberta*, November 1999. Based on the current proposed location of the wastewater treatment plant, the applicant may request that the County and Alberta Environment relax the 300m separation distance between residences and the treatment plant as provided for in the Subdivision Regulations. The extent of the relaxation will be dependent upon the actual location of the plant at the subdivision stage. An alternative location may be on Crown land to the west of the current location depending on site capabilities and regulatory approvals. A final location for the treatment plant will be made at detailed subdivision stage.

There are additional requirements for irrigation systems, which will be adapted from Alberta Environment's *Guidelines for Municipal Wastewater Irrigation*, April 2000.

## **5.6 Stormwater Management Concept (see Map 8A and 8B)**

The location for the proposed stormwater detention facilities are shown in Map 8A and 8B (Map 8A represents the south half and map 8B represents the north half of the

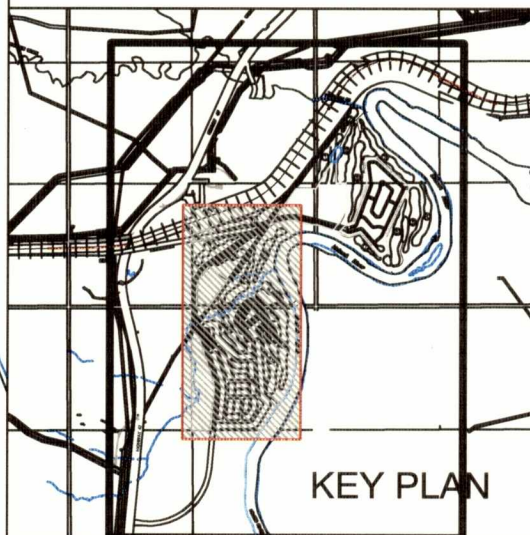


stonewater  
RANCH

0 100 200

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Design Date: October 22, 2008



## South Stonewater Ranch Stormwater Concept Map 8A

### Legend

- EFFLUENT POND
- SHARED STORMWATER MANAGEMENT POND/ IRRIGATION POND
- STORMWATER MANAGEMENT / GOLF COURSE POND
- LANDUSE COMPONENTS
- ASP BOUNDARY
- RAILROAD (CNR)
- STREAM
- EFFLUENT FEEDER LINE
- OUTFALL PIPE

NOTE: PRIVATE OWNERSHIP BEGINS AT THE OUTLET PIPE FOR IRRIGATION. THE POND, ITSELF, THE EFFLUENT DISTRIBUTION SYSTEM AND OUTFALL TO THE RIVER ARE PUBLIC

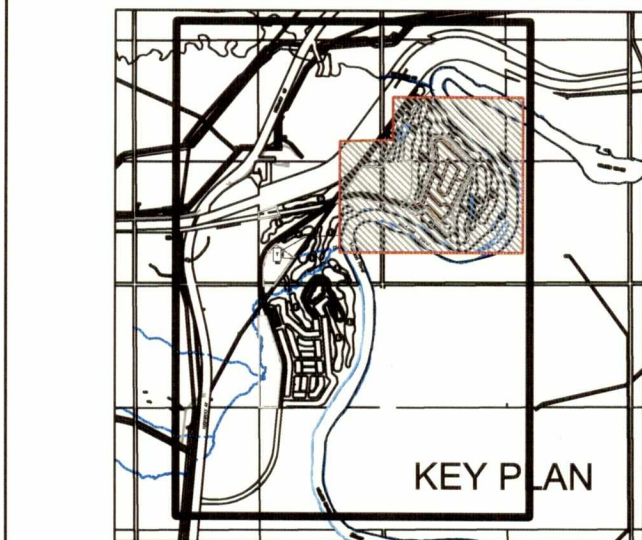


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
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Design Date: October 22, 2008



South Stonewater Ranch Stormwater Concept  
Map 8B

**Legend**

-  EFFLUENT POND
-  STORMWATER MANAGEMENT /GOLF COURSE POND
-  LANDUSE COMPONENTS
-  ASP BOUNDARY
-  RAILROAD (CNR)
-  STREAM
-  EFFLUENT FEEDER LINE
-  OUTFALL PIPE

development). On-site stormwater detention/retention will meet County and Alberta Environment requirements. Stormwater detention/retention facilities will be incorporated into the development at locations where natural positive drainage occurs before entering a water body. These ponds will capture flows from the post-developed areas and detain the flow before releasing at a pre-development rate to the McLeod River or Stonewater Creek. The stormwater management system's flow rates, sizing and outlet structures will be determined at the detailed design phase. The conceptual locations for the stormwater management ponds are shown in Map 8A and 8B.

There are two types of stormwater ponds proposed. Most of the ponds will be used as shared stormwater/water features on the golf course and some will be used for irrigation water. When stormwater becomes partially depleted in a stormwater/irrigation pond, the wastewater treatment plant would replenish the volume to the capacity of the pond. Aeration would need to be introduced to ensure odour abatement in and around residential areas. However, it is anticipated that treated sanitary effluent flows will eventually exceed irrigation requirements and onsite storage capabilities and a license to discharge in to the McLeod River will be required.

## **5.7 Transportation Concept (see Map 9 and cross sections at end of Appendix B)**

The nature of the site requires a new public access road across Crown land and into the ASP area. Within the site, a major collector will provide access to a combination of public and private roads. Illustrations of potential cross section designs for roadways are illustrated at the end of Appendix B. The cross sections will be adjusted at subdivision stage to better reflect urban design and road maintenance options. The following identifies approximate road standards and proposed road ownership tenure.

**5.7.1 Off-site collector** - The site will be accessed directly from Highway 47 through Crown land. The land disposition is provisionally approved pending transfer to the County . This will be a public roadway of a 9m paved surface within a 30m right of way

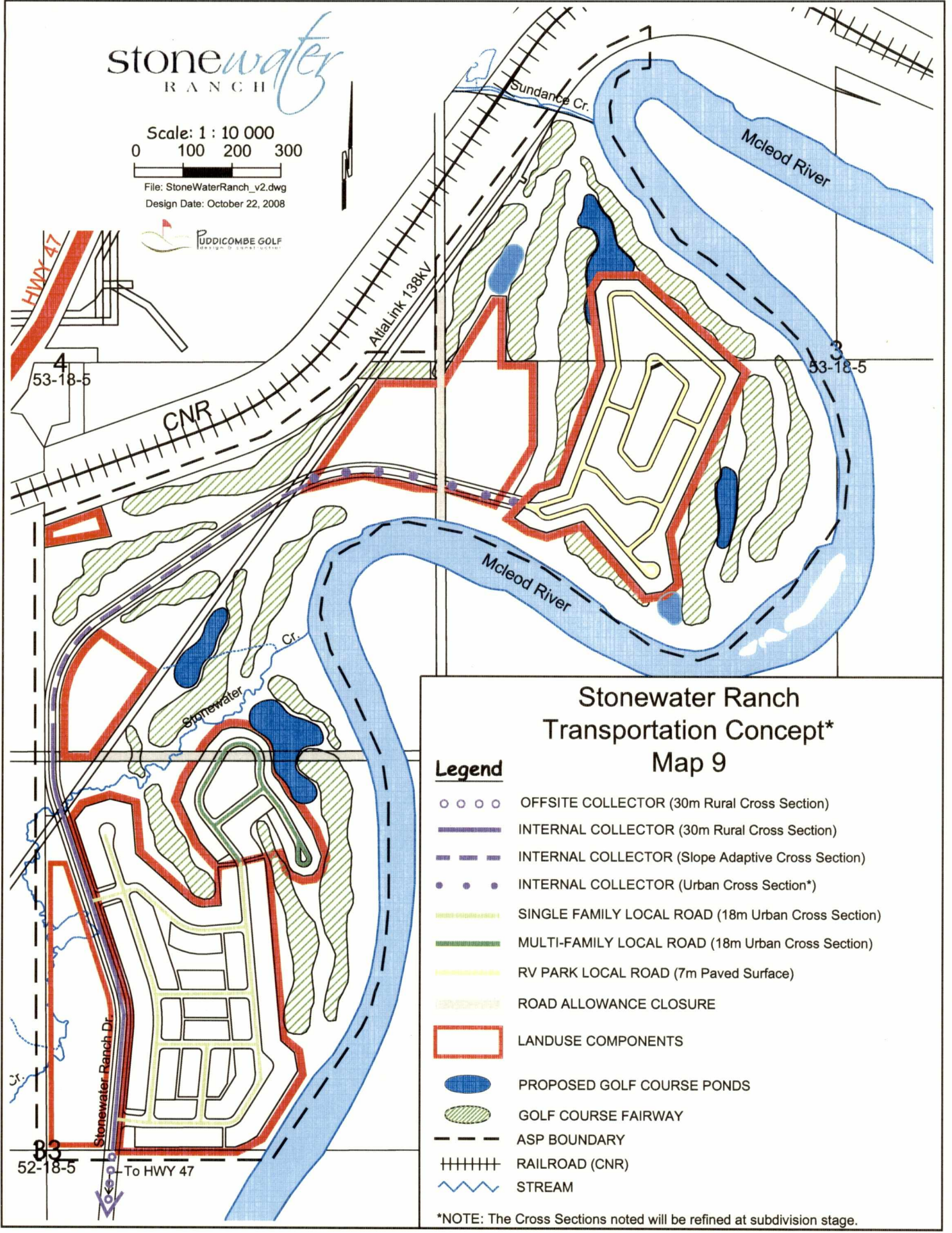


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Design Date: October 22, 2008

PUDDICOMBE GOLF  
design & survey center



## Stonewater Ranch Transportation Concept\* Map 9

### Legend

- ○ ○ ○ OFFSITE COLLECTOR (30m Rural Cross Section)
- INTERNAL COLLECTOR (30m Rural Cross Section)
- - - INTERNAL COLLECTOR (Slope Adaptive Cross Section)
- • • • INTERNAL COLLECTOR (Urban Cross Section\*)
- SINGLE FAMILY LOCAL ROAD (18m Urban Cross Section)
- MULTI-FAMILY LOCAL ROAD (18m Urban Cross Section)
- RV PARK LOCAL ROAD (7m Paved Surface)
- ROAD ALLOWANCE CLOSURE
- LANDUSE COMPONENTS
- PROPOSED GOLF COURSE PONDS
- GOLF COURSE FAIRWAY
- - - ASP BOUNDARY
- +++++ RAILROAD (CNR)
- ~~~~~ STREAM

\*NOTE: The Cross Sections noted will be refined at subdivision stage.



rural cross section to County standards. The total road plan will require the construction of approximately 925 metres (3029 ft) of road and consume 2.85 hectares (7.04ac) of Crown land. A Traffic Impact Assessment (TIA) has identified the class of intersection required to handle the expected traffic as a Type III Intersection. The complete TIA including the proposed intersection design is located under separate cover in Appendix B of the ASP support documentation.

**5.7.2 Internal Collector** – The internal collector road will serve as the major spine that connects all the land uses.

- The road cross section from the resort entrance to the start of the escarpment incline will be a public roadway of a 9m paved surface within a 30m right of way rural cross section to County standards.
- The road cross section for the incline to the top of the escarpment in SE4-53-18 may require a slope-adaptive design to accommodate proper drainage and bank stability and will maintain a grade of 6% or less.
- The road cross sections at the top of the escarpment that will serve the clubhouse will be an urban cross section with a potential 9m surface with surface storm water drainage. The actual cross section will be configured at the detailed design stage of the resort centre and prior to subdivision. The north-eastern extent of the internal collector road will terminate at the entrance to the RV Park and include adequate turnaround space. The specific configuration of the collector road within the multi-use clubhouse precinct is conceptual and will be defined at the subdivision/ development permit stages.

### **5.7.3 Local roads**

All local roads will be to an urban standard and include surface stormwater drainage.

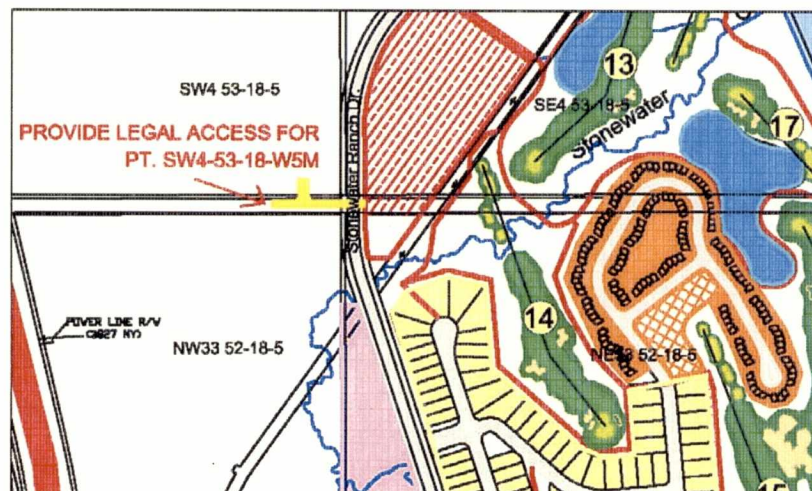
- The *single family residential* community in the south will be designed as a public roadway with a 9m paved surface within an 18m right of way and surface stormwater drainage. This cross section is derived from Strathcona County engineering standards and is applicable for residential parcels of this size.

- The *multi-family residential* community in the south will be served by a public roadway with an 9m paved surface within an 18m right of way and surface stormwater drainage.
- The *RV Park local roads* will be privately owned and maintained and designed using a minimum 7m paved surface. The overall right of way width would be determined at detailed design stage.

#### 5.7.4 Emergency Access and Alternative Access for Adjacent Landowner

Emergency Access - The Applicant is prepared to provide an emergency access at the north-western corner of the ASP area. A private rail crossing agreement with CNR currently exists. However, in order for this rail crossing agreement to be available for use as a County emergency access, CNR is required to agree to the amendment of the crossing agreement. Until such time as that is made available by CNR, the emergency access is proposed rather than operational. Alternate emergency access locations have been reviewed but are impractical due to river crossings, steep slopes or limitations in providing alternative access to a developed area of any effective size.

Alternative Access for Adjacent Landowner – Alberta Transportation has specifically requested that access for the adjacent landowner in SW4-18-W5M. The map below offers a legal access from SW4 onto the main collector road in the ASP project using an existing legal road allowance.



#### **5.7.5 Trail Development**

Map 5 identifies the trail network. The trails are intended for non-motorized users. A perimeter trail system is proposed using two collector trails and local internal trails that link into existing local roads. A collector trail along the riverside trail and a west side collector trail is expected to provide a convenient alternative method of travelling from one community or precinct to another. Except for the trails that provide access into or out of the built up areas, the collector trails will wind through the golf course and the riverside for the full length of the resort property. Trails will be constructed of a compacted gravel/ river-mud mixture or wood chips/mulch on a 3m right of way and a typical 1.5 to 2 metre gravelled surface depending on expected use levels. The golf course pathways will be a paved standard and will need to be mostly separate from the public trails in order to reduce user conflicts.

### **5.8 Tenure and Infrastructure Management**

The Stonewater Ranch resort development contains several lines of business; golf, RV park, equestrian, hotel, commercial and residential accommodation. These will likely evolve into multiple ownership structures. This then requires that facilities and land uses are managed to ensure diligent and responsible operation/maintenance after construction. As such, the tenure model among the different lines of business will require coordination among the prime developer, the County, building contractors, the Province and lot owners. It will also require a sufficiently simple business model to remain workable.

The developer will obtain approvals for and construct the necessary roads, stormwater management facilities, water treatment and wastewater treatment plants, the required pipes, lift stations, pumps and reservoirs and turn specified facilities over to the County upon completion as described below.

#### 5.8.1 Water Treatment and Distribution Facilities

The water treatment and main distribution system is to be publicly owned. This would also include the supply wells, storage reservoirs, etc. Private water connections will be metered for the RV Park while the remaining distribution lines will be public. However, the RV Park will be connected to the same fireflow system as the remainder of the resort.

#### 5.8.2 Wastewater Collection, Treatment and Disposal

The effluent collection system, effluent treatment system, and outfall are proposed to be publicly owned, whereas the effluent pond, outlet pipe for irrigation and irrigation distribution systems will be privately owned. The wastewater collection system within the RV Park would also be privately owned. It is proposed that the private operation of the treated effluent discharge to the effluent pond from public facilities would commence at the property line of the wastewater treatment plant. From that point on, the effluent and irrigation water will be maintained and allocated by the golf course.

#### 5.8.3 Stormwater Facilities

Most of the shared stormwater/water features, ponds and outlets are proposed to be publicly owned, unless they are for a private site only, whereas the stormwater/irrigation pond would be privately owned. This concept would be incorporated based on Alberta Environment and County recommendations.

#### 5.8.4 Road System

The developer will retain responsibility for the operation and maintenance of the internal RV Park roads. The Resort Centre will be a mix of public and private roads. The remaining road system (collector and local roads) will be public roadways.

#### 5.8.5 Open Space

All open space will be owned, operated and maintained by the developer. User and maintenance agreements will be created for common open space.

## 5.9 Ecological and Energy Conservation Measures

The applicants understand the need to mitigate the impact of the development on the environment and energy use. As such the following measures will be incorporated into the design of Stonewater Ranch.

- Stormwater Recycling - The treatment and re-use of stormwater for golf course irrigation reduces the need for added water licences from the McLeod River.
- Wastewater Recycling – The wastewater treatment plant will use treated effluent for golf course irrigation wherever possible. Microbial soil activity will further improve water quality.
- Greywater Recycling – The potential for greywater recycling remains experimental and has not entered the mainstream of the construction industry. The project will further examine opportunities to use this option of using “process water” from safe sources and using it for domestic irrigation.
- Golf Course Turf Management - Many areas on the golf course would be naturalized with the use of native grasses, providing wildlife corridors and transition zones between the golf course and surrounding areas. High quality turf-grass varieties would be used on the golf course which would be primarily fed with organic fertilizers. The use of the proper turf-grass varieties will result in a significant reduction in the use of herbicides & pesticides.
- Low Flow Fixtures and Energy Efficient Appliances – Low flow fixtures and ‘EnerGuide’ standards will be mandatory in all developments. This will reduce overall energy use.
- Energy Efficient Building Design - LEED silver standard will be the target minimum energy efficiency for residential or commercial development on the site. Gold or platinum standards will be encouraged wherever possible.
- Fire Smart Compliance On Site – Firesmart principles are well documented by the County and will be respected at the time subdivision and development permits are approved.



- Night-time Lighting - People love to gaze at the night sky. Residents also want protection from intrusive lighting from neighbours. Architectural design guidelines will apply strategies and techniques to reduce glare while still maintaining essential property security. A guide for this approach is outlined at [www.darksky.org](http://www.darksky.org). This website is dedicated to balancing legitimate security and safety needs with the desire to avoid nuisance glare or be able to enjoy a starry sky at its best.

### **5.10 Open Space, Reserve Land and Trails**

The intent of the open space design is to minimize the need for County involvement in the maintenance of statutory open space in the form of Municipal Reserve (MR). Cash in lieu is not required and MR is proposed to be satisfied with the open space identified in the ASP. The local condominium association will have an agreement with the golf course operator for turf maintenance and other hard and soft landscaping for areas such as entrance features and playground equipment.

The dedication of an Environmental Reserve Easement (ER easement) is proposed for the McLeod River shoreline. The presence of the ER easement will ensure that, with the possible exception of golf carts, the trails will allow for pedestrian use of trails and prevent use by, and thus conflicts with, off highway vehicles and snowmobiles. With few exceptions, the depth of the ER easement will, in most cases be 14 metres (45ft) or the width of existing tree buffer, whichever is greater. Dedication of the ER easement will also extend into the lower reaches of Sundance Creek and Stonewater Creek and will be defined at subdivision stage. Within the definition of “environmental reserve” parcels, the Municipal Government Act (MGA) allows for park uses such as trails. Maintenance of the trails will be the responsibility of the condominium associations and golf course under a private service agreement.

The creek and river shorelines are attractive natural areas. There are no immediate plans to construct formal riverside access, picnic areas, boat launch, etc. However, informal access will be monitored over time for potential future access improvements in later phases if demand warrants.

## **5.11 Architectural Design Guidelines**

Stonewater Ranch is a master-planned residential and recreational resort community located minutes from the town of Edson, Alberta. The quality of development will be ensured through the implementation of Architectural and Landscape Design controls. These guidelines will serve to promote a high level of architectural detailing to protect the integrity of the overall development and to ensure the value of investment in the community.

### **5.11.1 Overall Architectural Theme**

The Architectural guidelines will emphasize a theme for the overall development by incorporating common elements or features such as: similar roof pitch, roof dormers and gable styles; the use of porches and verandas; the details of cornices and lintels; the use of exterior finish materials, and a coordinated colour pallet.



***Craftsman Style Architectural features***

#### 5.11.2 Basic Design Elements

It is the intention of the developer to promote a community atmosphere by encouraging interaction along the public streets. Front facing porches, deck, and verandas will be encouraged.

The developer is encouraging more traditional residential styles in keeping with an overall craftsman theme (English Manor, English Tudor, and French Country as examples). The predominant character for single family homes, row housing, and low rise multi-family residential will result from the use of high-pitched roof and stone chimneys. It is intended that the overall development achieve harmony by controlling the massing, form, and site density to ensure that neighbouring properties complement one another.

Exterior finishes shall include stone, pre-finished (cementitious hardboard) clapboard siding, trim and façade shingle, and accent acrylic (floated) stucco (on face planes where a Tudor style is established). These materials shall be muted and coordinated to achieve a natural look. Finishes shall be consistent and transition properly to all facades of the building.

Colours shall be representative of the heritage theme. These colours shall be natural and complementary with accents suited to the style.

The developer will work with local authorities to ensure Architectural Guidelines are strictly adhered to. These guidelines will address issues related to accessory buildings, the building “pocket” or construction footprint, setbacks, location of garage and overhead garage doors, fences, patios and decks, porches, etc.

#### **5.11.3 Entrance Features**

The main road access will feature 4m landscaped shoulders (with curb and gutter). The shoulders would be sloped away from the curb and would be landscaped with grass, a row of trees, flower and shrub beds as well as an architectural fence in some locations. The road entry to the single family/ multi family townhouse communities in the south meadow would also include similar boulevard treatment. This would likely require a wider ROW in the area of these improvements. A privacy fence or wall for the single family area at the edge of the ROW will also be considered.

#### **5.11.4 Architectural design controls**

The Residential component and Resort Centre components as identified in Map 5 will apply more detailed architectural and landscaping design controls as part of a separate document preparation prior to subdivision. The controls will be used by the developer and the County approving authority to guide the subsequent subdivision and development of the Resort Centre as well as guide the residential and commercial components.

### **5.12 Development Phasing (see Map 10)**

#### **5.12.1 Timelines and staging of Phases**

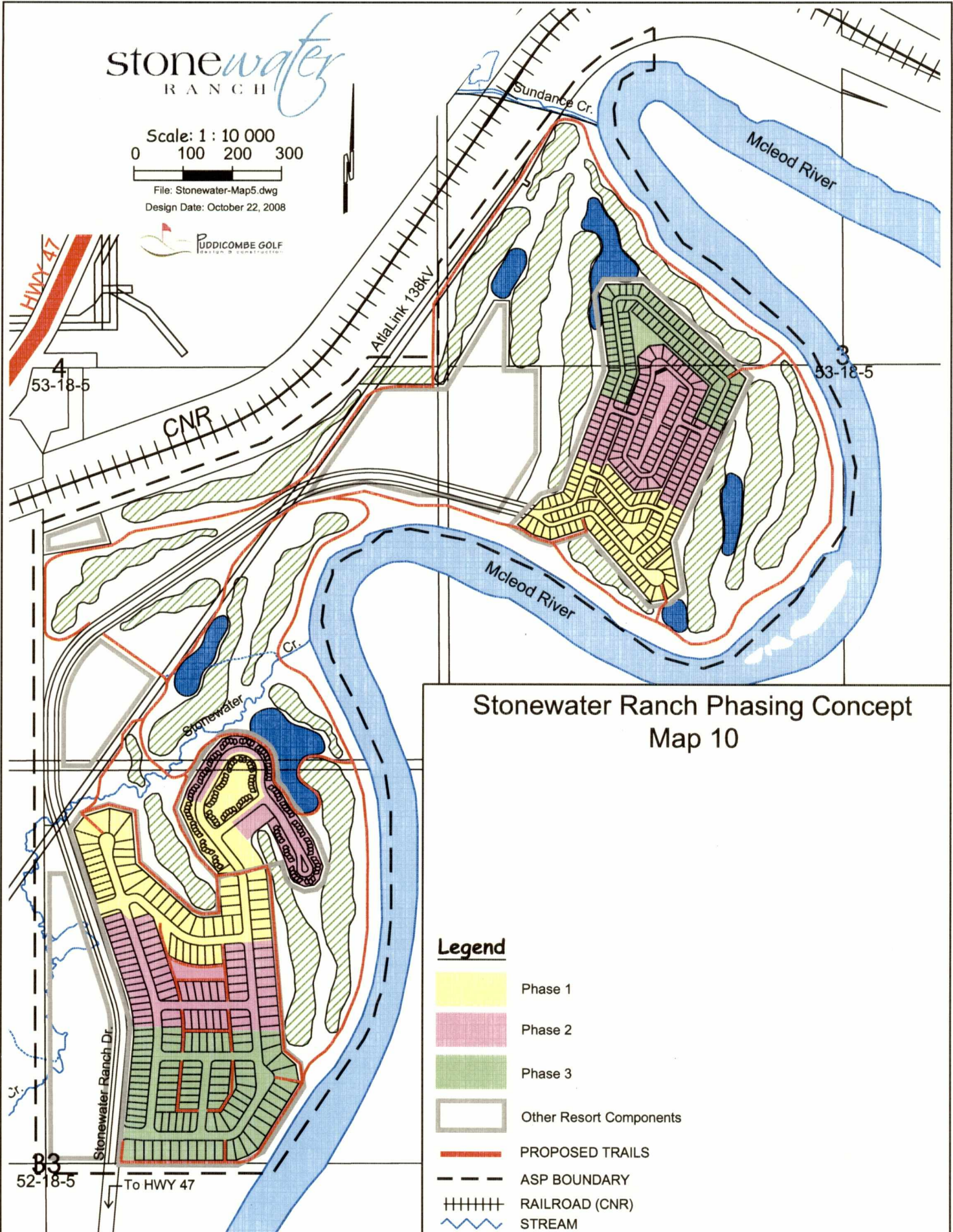
Any resort development requires a long lead time for constructing the first phase and a long period to mature into the later phases. This ASP is conceptual and will undergo



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Design Date: October 22, 2008



Stonewater Ranch Phasing Concept  
Map 10

## Legend

- Phase 1
- Phase 2
- Phase 3
- Other Resort Components
- PROPOSED TRAILS
- ASP BOUNDARY
- +++++ RAILROAD (CNR)
- STREAM



refinement during the detailed subdivision and development approval process. The development sequence of Stonewater Ranch is anticipated to cover a 5 to 7 year horizon depending upon capitalization, market response and the speed of regulatory approvals. The first phase will consist of the golf course and clubhouse facilities, essential commercial services and the initial RV and residential phases. The equine centre will be initiated in the first phase with guest cabins following afterwards.

Essential infrastructure will also be required in the first phase including the main access road, supply wells, water and wastewater plants, lift stations, trunk lines, water reservoirs and force mains. Essential storm water management ponds will be integrated with the golf course irrigation system. Additional cells will be added as more storm water retention and detention facilities are identified in future development phases. The following table summarizes the potential unit and population densities by Phase.

### Stonewater Ranch ASP Accommodation Phasing

Land use	Phase 1	Phase 2	Phase 3	Future Phases	Total # Units	Pop. Est. (full build out)*	Gross Ha. (ac)
Single Family Residential	48	61	87	0	196	2.9x196=568	19 (47)
Multi townhouse (South meadow)	60	75	0	0	135	1.9x135=257	4.88(12.1)
Adult Living complex (South meadow)	20	20	0	0	40	1.9x40=76	0.64(1.6)
Multi Residential Apartment (Resort Centre)	0	100	100	275	475	1.5x475=712	TBA
RV Lots	92	68	127	0	287	Seasonal/ commercial 1.9x275=523	14 (34.5)
Hotel units	0	0	0	150	150	N/A;commercial	TBA
Guest Ranch and Cabins	0	15	15	0	30	N/A; commercial	7.2(17.7)
<b>Totals</b>	220	339	329	425	1313	Assuming 100% occupancy & full time;1613, plus 523 RV Park seasonal=2136	

**\*Notes;**

- The full build out population estimates assume 100% occupancy rates.
- Residential occupancy is based on the Alberta Federal Census 2006 for full time occupancy.
- RV population is reduced to reflect lower typical occupancy rates.

#### 5.12.2 Expected Occupancy Rates

The number of dwellings or RV pads in the RV or residential component that will be occupied at any one time will vary by season and type of unit. For RV Parks, research for similar American resorts indicates that the maximum occupancy rates for RV resorts on the highest long weekend is 80% occupancy of the resort units and that average occupancy over the summer season is between 40-50%. Based on experiences elsewhere in Alberta, it is expected that there will be very limited use for off-season occupancy of the RV Park.

Residential occupancy rates per dwelling unit were estimated using the 2006 Federal Census for Alberta. Single family dwelling occupancy was listed as 2.9 persons per dwelling unit. Apartment occupancy was listed as 1.5 persons per unit. Townhouse and RV Park occupancy per unit was estimated by extrapolating the apartment and Single dwelling statistic as baselines.

#### 5.12.3 Expected Length of Occupancy

The overall occupancy duration of a unit will vary with the type of use. The single detached dwellings would be more likely to reflect more full time occupancy although some residences may be second homes. The multi-family units are intended primarily as second homes with the emphasis on part time occupancy.

While the condominium ownership of the units would allow year round occupancy, the RV resort is intended as a seasonal, commercial operation which will include managed rentals during high season. The RV is intended to be operational on a year round basis, but, while persons would be able to occupy the land throughout the year, the RV resort is not intended as a full time residential neighbourhood. Remaining uses such as the hotel and guest cabins are strictly commercial for short stay accommodation.

As a result, the 2,136 population capacity at full buildout is estimated to expect an average summertime population closer to 900-1,000 persons at any one time.

## **6.0 AREA STRUCTURE PLAN POLICIES**

### **6.1 Introduction**

The following policies are the standards that the Developer and the municipality shall follow unless an application is made to amend the ASP and/or the Land Use Bylaw.

Relaxation of these policies are within the purview of the County where the relaxations are in keeping with the spirit and intent of the overall concept.

### **6.2 Land Use Policies**

- |  |  |
|--|--|
| <b>policy application</b>              | a. Future subdivision and development shall be in accordance with the policies and intent of this Area Structure Plan. Major deviations from the Plan design, intent and policies shall require an amendment to this Plan. Minor relaxations may be considered without an amendment to this Plan where the Developer can demonstrate to the satisfaction of the County that the proposed changes would maintain the overall intent of the Plan policies. The plans that have been submitted are conceptual in nature and are intended to evolve within the stated objectives of the plan as additional work is undertaken. |
| <b>concept design</b>                  | b. The Stonewater Ranch Map 5 is conceptual. For each phase of development, lot configuration and final road alignments will be designed prior to the subdivision approval stage for that phase.   |
| <b>Resort Centre design guidelines</b> | c. Design guidelines for the Resort Centre land use component as identified in Map 5 will be established by the Developer prior to the subdivision approval stage in accordance with the proposed conceptual plan and in consultation with the County.   |
| <b>land use densities</b>              | d. Maximum land use densities shall be a total of 1313 residential and accommodation units in accordance with Section 5.12 of this Plan. The Plan shall also provide for the flexibility to transfer residential densities   |



between land use components should site conditions or market shifts result in an inability to achieve the stated densities in section 5.12. However, in no case shall the overall density exceed development permits for 1313 units without an amendment to his Plan.

**RV park**

- e. The RV Park may provide recreation stalls for a motor home, a fifth wheel, a trailer and this includes 12' wide park models, which meet CSA or equivalent standards and bear a label of certification; or any other temporary sleeping accommodations, expressly excluding mobile homes, tents and any other structures which could be considered fixtures or appurtenances to real property.

**RV Park  
floodplain  
mitigation**

- f. Portions of the Phase 3 RV Park development may be located in the 1:100 year floodplain. The developer shall ensure that mitigation measures are in place as part of the condominium bylaw to allow the evacuation of all RV units in advance of a flooding event. In addition, no Park model RV units shall be allowed to be installed within the 1:100 year floodplain.

**amend  
floodplain**

- g. A portion of the Phase 2 multi-family land in the south meadow may be re-graded and elevated to allow for future development. This area is primarily located upon a portion of the land lying within the 0.50m freeboard above the established 1:100 year floodplain. Detailed engineering at the subdivision stage will ensure that re-grading applies best management practices to ensure the normal functioning of the floodplain is maintained and that any floodwaters will be able to flow back to the river unimpeded.

### 6.3 Servicing Policies

concept  
maps  
7, 8, 9

- a. The general location of the servicing facilities for water supply and treatment, wastewater treatment and stormwater management are identified conceptually on Maps 7, 8 and 9. The final location and design of the facilities shall be finalized at the detailed design stage prior to subdivision approval.

water  
supply

- b. The development shall be supplied with a licence to provide sufficient potable water to the full buildout population. The water supply and water treatment shall be provided under licences approved by Alberta Environment prior to subdivision approval. The location of water wells to supply the site and the location of the water treatment plant shall be defined prior to construction of the water treatment plant.

water  
treatment  
facilities

- c. The water treatment plant required to serve the ASP area shall be paid for and constructed by the developer. Upon construction completion of the water treatment and associated distribution facilities, the developer will turn over the ownership and operation of said facilities to the County. The treatment plant shall be designed so as to allow the facility to expand capacity should there arise an opportunity to supply potable water elsewhere in the County.

wastewater  
treatment  
facilities

- d. The wastewater treatment plant required to serve the ASP area shall be paid for and constructed by the developer. Upon construction completion of the wastewater treatment and associated facilities, the developer will turn over the ownership and operation of said facilities to the County. The treatment plant shall be designed so as to allow the facility to expand capacity should there arise an opportunity to offer wastewater servicing capacity elsewhere in the County.

stormwater  
mgmt.

- e. Any increased stormwater demands resulting from development as a

result of the ASP shall be detained within the ASP area. A detailed stormwater management plan will be prepared prior to subdivision and in accordance with the Alberta Stormwater Management Guidelines.

stormwater  
mgmt.  
facilities

- f. The stormwater facilities required to serve the ASP area shall be paid for and constructed by the developer. Upon construction completion, the developer will turn over the ownership and operation of said facilities to the County. The stormwater/water features, ponds and outlets are to be publicly owned, unless they are for a private site only, whereas the stormwater/irrigation pond would be privately owned.

shallow  
utilities

- g. Underground power, communal lighting, communications and natural gas services shall be provided to the satisfaction of Yellowhead County. Electrical distribution lines shall be constructed underground. In cases where overhead electrical transmission lines are required to be brought into the ASP area to serve the development, their locations within the ASP lands shall be configured to minimize viewshed impact and to minimize construction and ROW disturbance.

access  
easements

- h. The Developer shall ensure that access easements will be provided where required to allow for the maintenance and repair of shallow and deep utilities as needed by franchise utilities and the County.

## 6.4 Transportation Policies

concept  
map 9 and  
cross  
sections in  
Appendix  
B

- a. The conceptual road system is shown in Map 9 and proposed cross sections are included at the end of Appendix B under separate cover. The road alignment and associated cross sections are conceptual and will be refined at the subdivision stage and to the satisfaction of Yellowhead County.

public  
roads,  
private  
roads

- b. All roads shall be paid for and constructed by the developer. Upon construction completion, the developer will turn over ownership of the following roads to the County; the main collector between the Hwy 47 access and the entrance to the RV Park; the single family residential roads; roads giving access to multi family townhouse and adult living residential complexes. Roads within the RV Park will operate as private roads. Roads within the Resort Centre may contain both public and private roads. The division of public and private roads within the Resort Centre will be defined prior to subdivision or development permit stage.

paved  
roads

- c. All public roads part of the ASP shall be hard surfaced. Roads within the RV Park shall also be paved with hot mix asphalt or alternative durable hard surface material. Hard surfacing does not include cold mix or gravel-based surface but does include asphalt, concrete, paving stones, etc.

emergency  
access

- d. The County and the Developer shall make representation to CNR to retain access at the northwest corner of the ASP area for the purposes of emergency access only. The access would be constructed with breakaway barriers and key lock. Should the emergency access be unavailable, the developer and the County shall identify other methods to enhance alternative site access at the subdivision approval stage.

road  
allowance  
closure

- e. The County shall initiate a closure of the undeveloped road allowances as identified in Map 9. The area of the road allowances will be exchanged for alternative roads that will be developed within the ASP area.

Adjacent  
Landowner  
alternative  
access

- f. Legal access from SW4 onto the main collector road in the ASP project will be offered to the adjacent landowner using an existing legal road allowance if required as a result of closure of the existing Highway 47



access by Alberta Transportation. Costs associated with the alteration of the road access from the adjacent property shall be borne by Alberta Transportation and/or the adjacent landowner.

## **6.5 Community Services Policies**

- |                              |  |
|------------------------------|--|
| <b>fire<br/>protection</b>   | a. The Developer shall provide fire flows by way of reservoirs and pressurized water mains, except for the RV park which would integrate a rural-type system provided by a dry hydrant and a storage pond. |
| <b>solid waste<br/>mgmt.</b> | b. Solid waste management shall be provided by the County  |
| <b>snow<br/>removal</b>      | c. The developer shall ensure sufficient land is made available for the storage of snow removed from roads, whether on or off the ASP area. This shall be identified at the subdivision agreement stage.   |
| <b>school<br/>access</b>     | d. The developer shall consult the school authority to determine the required school bus access and circulation provisions.  |

## **6.6 Reserve Land and Open Space Policies**

- |                                       |   |
|---------------------------------------|---|
| <b>municipal<br/>reserve<br/>land</b> | a. The developer shall assume all ownership and maintenance of communal open space and associated trails and facilities. The developer shall enter into agreements with landowners with respect to the maintenance of communal open space and associated trails and facilities. |
|                                       | b. Municipal Reserve requirements shall be waived by the County at the time of initial subdivision to create Block and Plan parcels in advance of applications for more detailed subdivision for individual land use  |

components. In addition, all existing deferred reserve caveats will be discharged.

**open space  
care**

- c. Contractual arrangements among the condominium associations would be put in place to ensure proper operation and cost recoveries for the various common areas and amenities.

**ER  
easement**

- d. The developer shall provide an Environmental Reserve Easement (ER easement) for the McLeod River shoreline. An ER easement will also extend into the lower reaches of Sundance Creek and Stonewater Creek and will be specifically defined at subdivision stage.

**shoreline  
buffer**

- e. The width of the ER easement will, in most cases be 14 metres (45ft) or the width of existing tree buffers along the shoreline, whichever is greater. Some exemptions may be made for the location of golf course fairways as identified on Map 5.

**dev't.  
setback**

- f. Buildings shall not be allowed within 30m (100ft) of the shoreline of the McLeod River.

**trail  
building**

- g. In accordance with the MGA, the allowable land uses associated with an ER easement will allow for park uses such as trails. Trails within the ASP area shall be constructed by the developer and maintained by the golf course under agreement. The trails may be constructed with river mud mixture, gravel and/ or wood chips. Detailed cross sections for the trails will be identified at the subdivision approval stage.

**regional  
trails**

- h. Connecting trails in the environmental reserve easement adjacent to the McLeod River may be integrated through the site in cooperation with the County and user interest groups. Trails shall be for non-motorized users except where cart access is required for the operation and maintenance

of the golf course.

## **6.7 Implementation Policies**

**LUB  
districts**

- a. The ASP area shall be implemented in accordance with the appropriate land use bylaw districts as identified in Appendix A of the Stonewater Ranch ASP Appendices. The land use bylaw district maps may be amended to reflect the more detailed footprint of various land uses that will be brought forward at the subdivision stage.

**Initial block  
subdiv.**

- b. For the purposes of dividing the land into separate lines of business and for capitalization purposes, the Developer may subdivide the land use components generally identified in Map 5 into discrete parcels (ie. to the Block and Plan level) in advance of more detailed subdivision and development. The block parcels would include the Resort Centre, golf course, RV Park, single family residential, multi-family residential, the adult living complex, equine centre and the parcels created for the construction of the water treatment and wastewater treatment facilities.
- c. Subdivision of the Resort Centre block into sub-component parcels including the golf course clubhouse and other land uses shall be reviewed with the County at the detailed design stage including the documentation of urban design, architectural and landscaping guidelines.

**single  
developer  
for subdiv.  
and bylaw  
approvals**

- d. Stonewater Ranch will be the single legal entity (ie; "the Developer") that the County will deal with on bylaw amendment and subdivision matters. This entity will negotiate a full servicing agreement with the County.

**individual  
dev't  
permits**

- e. Other business entities owning land use components as identified within the ASP area will be represented by the Developer. Landowners shall apply directly to the County for development permits on individual

residential, RV lots the hotel and commercial uses within the RV Park.

dev't.  
agreement

- f. The Developer shall enter into a master agreement with Yellowhead County prior to subdivision approval for the Plan area. The agreement shall specify the ownership and terms of maintenance for water, sewer, stormwater and road facilities. The agreement shall also specify the fiduciary relationship among the legal entities in the ASP area and the County.

DP review  
by  
Stonewater  
Ranch

- g. Prior to submission of a Development Permit to the County for approval, all development permits shall be reviewed by the Stonewater Ranch approving authority. The purpose of the dual permitting process is to ensure that the design integrity of the resort is maintained at a high standard and is in compliance with the condominium bylaws. The process for the dual permitting process will be outlined in detail within the master agreement with the County and the developer

fees

- h. Fees, permits, environmental considerations, amenities and/or landscaping shall be determined prior to construction and in accordance with the subdivision servicing agreement.