

# SANDY POINT CONCEPT PLAN LACOMBE COUNTY, AB

## PREPARED FOR

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### 1.0 INTRODUCTION

### 1.1 PURPOSE

This Concept Plan has been prepared pursuant to Lacombe County regulations and in consultation with provincial government agencies and the public. The purpose of this document is to provide a non-statutory framework to act as a general guideline for the subdivision and development of the area. The Concept Plan, once adopted by Lacombe County Council, will outline future land uses, densities, transportation networks and access points, phasing, servicing standards, and open space systems within the specified study area. Once approved all future development onsite must abide by the guidelines in this Concept Plan.

### 1.2 BACKGROUND

The Sandy Point Concept Plan provides a framework for the subdivision and development of approximately 300.91 hectares (743.56 acres) of land, located at Section 1-41-1 W5M and part of S ½ 12-41-1 W5M. The lands, proposed to be developed for recreational vehicle resort and public recreational uses, are located on the southwest shore of Gull Lake (Sandy Point), and are within the boundaries of Lacombe County. The intent from the initial stages of plan development has been to provide an opportunity for affordable recreational property within the Central Alberta region in addition to providing an opportunity for public recreational uses within the area. This Concept Plan has been prepared on behalf of Frank Wilson. The lands in question will be named Sandy Point and will be referred to as such in the text of this document



### 1.3 POLICY FRAMEWORK

Lacombe County requires the completion of a Concept Plan in support of a re-zoning application for any multi-lot residential subdivision, which will provide the framework for the subsequent subdivision and development of the property. Generally, the Concept Plan must describe the proposed land uses, staging of the development, size of the lots proposed, and the location of proposed roads and other utility infrastructure. The Concept Plan must also provide the supporting technical documentation acceptable to Lacombe County Standards. As such, this Concept Plan has been prepared as per Lacombe County regulations and will review each topic in further detail.

### 2.0 SANDY POINT VISION

### 2.1 VISION

The vision is to create opportunities for recreational property and public recreational activities within the Gull Lake area. The proposed Sandy Point development is dedicated to becoming a positive contribution to the recreational development of the Gull Lake area. The development proposes to include a first class golf course, marina, public open spaces, trails, and RV Resort while maintaining the utmost respect for the surrounding environment and lake. Specifically, this Concept Plan has been carefully developed to ensure that significant environmental features onsite have been addressed from the initial stages of the site design process, thus providing a sustainable foundation for the development of the site. Because of the site's proximity to Gull Lake, various environmental reports have been completed at the request of Lacombe County, which address water quality, ground water supply and quality, wildlife habitat, shoreline and fish habitat and natural vegetation onsite.



### 2.2 DEVELOPMENT GOALS & OBJECTIVES

The Conceptual Site Plan reflects the following key objectives of the Sandy Point Concept Plan:

- To provide the opportunity to fully realize the development potential of the plan area by proposing uses that will use and enhance the natural features onsite.
- To create an opportunity for affordable resort living.
- To create an opportunity for recreational activities for area residents as well as the greater public.
- To develop the plan area in such a way as to have regard for the environmentally sensitive lakeshore and watershed of Gull Lake.
- To work closely with environmental consultants so that sensitive natural environments located onsite have been considered with respect to the proposed land uses.
- To develop appropriate mitigation measures to implement these land use plans.
- To make use of significant environmental features for landscaping and storm water management, to the extent possible.
- To research and possibly use alternative methods of wastewater treatment and disposal to complement the site's location and natural features.
- To protect and enhance the adjacent public lands by providing the public with an opportunity to view and enjoy these lands in an ecologically responsible manner.
- To protect the integrity of all roads and associated intersections affected by the Sandy Point development, to the satisfaction of Lacombe County and Alberta Transportation, while still recognizing the opportunities these features provide for development purposes.



 To provide a phasing plan that considers required infrastructure upgrades and balances best use of land.

### 3.0 SANDY POINT SITE CONTEXT

### 3.1 LOCATION

The Sandy Point plan area in the regional context is shown on **Figure 1**. Specifically, the plan area is located on the southwest shore of Gull Lake, within Lacombe County. The plan area is bound by two government road allowances to the south and west, a pipeline ROW to the northwest, and Gull Lake to the east, southeast, and north. Four parcels of public land, bound the plan area to the northeast and southeast (SW8 41-28-4, NW5 41-28-4, and SW5 41-28-4). Highway 12 and the Town of Bentley are situated approximately 3 km south and southeast of the plan area.

### 3.2 LAND OWNERSHIP

The land is currently under the ownership of Mr. Frank Wilson. The public lands bounding the site to the east are owned by the Province of Alberta (SW ½ Section 8-41-28-4, NW ½ Section 5-41-28-4, and SW ½ Section 5-41-28-4) (**Figure 2**).

### 3.3 CURRENT LAND USE

Until recently, a large portion of the land was cultivated and in agricultural use (**Photos** –1-11, 14, 15, 17-19). The remainder of the lands consist of forested areas and are occasionally used for recreational purposes (**Remaining photos & Figure 10**).



### 3.4 CURRENT LAND USE DESIGNATION

A small segment in the southern portion of the site is currently zoned Residential Lake Area District (R-RLA). The remainder of the plan area is zoned Agricultural District (A) (Figure 3).

### 3.5 SURROUNDING LAND USE

The predominant land use in a majority of the surrounding lands (to the west) is agricultural. Private residential land uses are situated in pockets along the surrounding lakeshore. The Town of Bentley is situated approximately 3 km to the southwest of the plan area.

# 4.0 EXISTING SITE CONDITIONS

### 4.1 NATURAL FEATURES

### 4.1.1 Gull Lake

One of the most significant natural features to consider is Gull Lake, to the east of the plan area. Gull Lake is a shallow mesotrophic lake with moderate nutrient levels. The lake is approximately 80.6 km² in size. It has a mean water depth of 5.4 m and a maximum water depth of approximately 8 metres (Photos 21, 25-27).

### 4.1.2 Sedge Meadow

According to the Phase I Environmental Site Assessment completed by Ecomark Ltd., sedge meadow environments are situated along the northern and eastern shore of Gull Lake within the subject property and the adjacent



public lands (Photos 20-22, 28, 29 & Figure 10). At the time of the assessment, these sedge meadow environments contained surface water. These areas typically have poorly developed soils, high groundwater tables, and contain wet meadow conditions. The proposed site design attempts to protect the majority of the sedge meadow along the north shore and in the southeast corner of the site. The sedge meadow along the north shoreline is a more complete representation of this feature. Although this sedge meadow environment has biophysical significance, it is not classified as a wetland under the wetland policy.

### 4.1.3 Temporary Class II Wetlands

According to the Phase I Environmental Site Assessment completed by Ecomark Ltd., there are two small Temporary Class II Wetland areas in the south western portion of the subject property. Temporary Class II Wetlands typically only contain water for a few weeks after snowmelt. At the time of inspection, the temporary wetlands were dry and contained wet meadow, and aquatic weedy vegetation. According to the historical air photos, these particular wetlands contained water occasionally in the spring, but were cultivated in drier years. The proposed developments storm water management plan and conceptual plan has taken into consideration the identified temporary wetlands by preserving these areas as natural features within the proposed golf course.

### 4.2 TOPOGRAPHY AND VEGETATION

**Figures 4 and 5** illustrate the existing topography and significant natural features onsite. **Figure 10** illustrates the various locations where the photos of the existing site were taken **(Photos 1 - 29)**. The Biophysical Assessment, completed by Ecomark Ltd., revealed that the subject property is hilly and sloped to the east. An examination of the



existing topographic survey data concludes the same. There are rolling hills and agricultural lands in the western portion of the site ranging in slope from minimal to twenty (1:5) percent. This area is where the proposed golf course and future Stage 3 R-RVR development is to be located.. The north and east facing forested area transitions down a moderately to steep slope, ranging from ten (1:10) to twenty (1:5) percent, towards the identified sedge meadow and Gull Lake. This transition area is where the land use will change from the golf course to the RV resort.. There is also a low-lying wet area in the south-central portion of the site in the location of the abandoned gas well, which will either be incorporated in the golf course design or regraded accordingly. Prior to the rezoning of Stage 3 a slope stability study may need to be undertaken to determine development suitability.

Six vegetative features were identified on or near the Sandy Point plan area. These include:

- Cultivated agricultural land in upland areas of the subject property.
- Temporary wetlands at the south western portion of the site, containing common great bulrush, creeping spike-rush, marsh reed grass, water sedge, and several other wetland species.
- A mature hedgerow along the western boundary of the site, consisting of mature balsam poplar with a well developed understorey vegetation.
- Mature mixed wood forests along the north and east-facing slopes, dominated by mature white spruce and trembling aspen.
- Young deciduous forests east of the forested slope, consisting of trembling aspen, balsam poplar, willow, mixed grasses, and forbs.

Sedge meadows along the shoreline (northern and south eastern portions of the site, consisting of sedges, mixed grasses, and forbs.



Where feasible to do so, Sandy Point intends to preserve and incorporate as much of the identified vegetative features within the proposed conceptual development plan. For instance, a majority of the golf course is proposed to be located in the cultivated agricultural lands. The golf course proposes to make use of the identified wetlands as natural features and also proposes to incorporate the developments storm water management plan and waste water management plan as natural features. Sandy Point also intends to limit the impact on existing natural environments by restricting the types of land uses in the more sensitive natural environments. The identified young deciduous forests and sedge meadow areas are proposed to be protected via means of a Direct Control (DC) District or Environmental Reserve (ER) which restricts the types of land uses that will be tolerated. It is foreseen that a majority of these controlled areas will be solely restricted to recreational land uses such as beaches, walking trails, and the marina. Meanwhile, a majority of the RV resort area is proposed to be located within the mature mixed wood forests where the environmental impact on the natural environment anticipated being less.

### 4.3 SOILS

According to the Geotechnical Investigation (Parkland Geotechnical Ltd., 2008), the soil profile encountered at the site was topsoil, silty sand, silty clay, and clay till overlying bedrock. Drilling refusal was met on bedrock at a depth of 5.7 and 5.0 m below grade in two of the boreholes. Topsoil was encountered at all borehole locations throughout the site, which varied in thickness between 100 and 200 mm. The sand deposits were fine grained, poorly graded and non to low plastic with varying proportions of silt and clay. The silty clay layer was medium plastic and of a firm to stiff consistency. Within the clay till layer, the proportions of sand, silt and clay were roughly equal. The plasticity of the clay till was low to medium and the consistency of clay till was stiff to hard. Some borehole soil samples were tested for water soluble sulphate wherein all samples were found to have a negligible potential for sulphate



attack on buried concrete in direct contact with soil. This is a positive outcome for when considering the necessary construction materials for such things are the installation of deep underground utilities and the construction of structural slabs and driveway pads where applicable.

Groundwater monitoring was also recorded within some of the borehole locations. Groundwater levels were considered to be at or above the seasonal average. At the time of the monitoring, central Alberta had been experiencing some higher than average seasonal precipitation values, thus, directly reflecting the groundwater levels recorded. As a result, and dependent on the year's precipitation volumes, some ground water seepage can be expected for deep excavations so de-watering measures may have to be considered for construction. In general, the native soil conditions are considered to be typical for the area and have been classified as an acceptable building material type. More detailed findings and design suggestions have been outlined in the Geotechnical Investigation (Appendix I).

### 4.4 EXISTING TRANSPORTATION FEATURES

**Figure 6** illustrates transportation features in the area surrounding the subject site. These transportation features consist of the following:

- Township Road 41-0 runs east-west, bounding the plan area to the south.
   Township Road 41-0 is a two lane gravel roadway west of Range Road 1-1 and is undeveloped east of Range Road 1-1.
- Range Road 1-1 runs north-south bounding the site to the west. Range Road
   1-1 is also a two lane gravel roadway and becomes an undeveloped road allowance to the west of the plan area.



- Highway 12 runs east-west, extending through the Town of Bentley approximately 3 km south of the site. It is a two lane paved highway. It is our current understanding that Alberta Transportation is considering some realignment options within the vicinity of the proposed development and the Summer Village of Gull Lake.
- Highway 771 is situated approximately 2 km to the west of the plan area and is a two lane paved highway.
- The roadway allowance of Range Road 1-0 runs north-south bounding the site to the east. The previously identified public lands are located to the east of this roadway allowance. Range Road 1-0 remains undeveloped within this roadway allowance as it is bound by the lake to the north and south.

### 4.5 EXISTING UTILITIES

### 4.5.1 Water & Wastewater

There are currently no water or sanitary infrastructure services on the subject property. According to the Phase I Environmental Site Assessment completed by Ecomark Ltd., there are three water well sites located on the property. These wells were constructed in 2002 for the purposes of evaluating and/or servicing the Sandy Point development.

### 4.5.2 Stormwater Management

Stormwater within the plan area currently drains via the natural topography, by overland flow from the west to the southeast portion of the site.



### 4.5.3 Abandoned Gas Wells

There is one abandoned oil well site in the southwest portion of the plan area. It was abandoned on September 3, 1953 and is licensed to Chevron Canada Ltd. According to the Alberta Energy and Utilities Board, "Advisory Land Use Planning Notes – Abandoned Oil and Gas Wells," permanent structures must be setback at least 5 metres from abandoned wells and underground utilities must be set back at least 3 metres. A working space of at least 10 metres by 15 metres must be left around the well, along with an access route not less than 8 metres wide. According to the Sandy Point Conceptual Site Plan, the golf course is located in this abandoned well site area, therefore these setback requirements will be met.

### 4.5.4 Existing Gas Wells/Pipeline ROWs

There are two gas line right of ways running east/west, to the west of the subject property. The gas lines are registered to Progress Energy Ltd. and Provident Energy Ltd. There are two active gas wells (non sour) to the northwest of the subject property. The first is registered to Progress Energy Ltd, and the second is registered to Provident Energy Ltd. Non sour wells require a 100 metre setback from the wellhead to an occupied structure or its equivalent, or a public facility. There are no permanently occupied structures or public facilities proposed within this 100 metre setback area, as the majority of the setback areas are located within the golf course/driving range area.

There is one commingled well site to the northwest of the plan area, which is registered to Cabrerra Resources Ltd. Please refer to **Figure 7** for the location of these gas wells.



### 5.0 POLICY FACTORS

It is necessary to examine the relevant policy documents that will affect the plan area before determining specific development plans. The lands are located within Lacombe County and therefore the site is subject to County policy documents.

### 5.1 MUNICIPAL DEVELOPMENT PLAN

The Lacombe County Municipal Development Plan, approved August 28, 2007, outlines the direction for future development within the county.

The overall growth management goals for residential development within the County are:

- To allow for a broad range of housing opportunities in the County that provide for settlement patterns that are economically, socially, and environmentally sustainable
- Encourage compact and higher density forms of housing in appropriate locations
- Promote environmentally sound development
- Provide for a range of residential uses, in locations close to amenity, service, and employment centres.

Section 6 of the Lacombe County MDP outlines Economic Development goals and objectives within the County, specifically addressing the opportunity to expand the County's tourism industry base:



### Policy 6.4 Tourism Development

Through opportunities provided by expanded uses allowed in the Land Use Bylaw, Lacombe County shall encourage and facilitate development of tourism attractions, services and infrastructure by private and non-profit groups.

### Policy 7.2 Environmental Setbacks from Waterbodies and Watercourses

The County shall, as a condition of subdivision approval, require an environmental reserve or environmental reserve easement of not less than 30 metres (98 feet) in width from the high water mark of waterbodies and/or the top of bank of watercourses to the lot line. A greater setback may be required by the County based on the recommendations of a geotechnical study undertaken by a qualified professional.

### Policy 7.9 Development in Flood Plains

No permanent structures shall be permitted within the 1:100 year floodplain of any river, stream, or lakeshore, unless proper flood proofing techniques are applied. A certificate from a qualified professional engineer will be required by the County to confirm that the development has been properly flood proofed. For those areas where 1:100 year flood level of the affected river, stream or lakeshore.

### Policy 7.10 Environmental Impact Assessment

An environmental impact assessment may be required for any development that has the potential to cause any harmful environmental effects on its surroundings. Where required, an environmental impact assessment shall address the following:

- a) a description of the biophysical environments that would be affected;
- b) a prediction of the effects (both positive and negative) that the proposed development may have on the site and its surroundings;
- c) an indication of the limitations of the study, criteria used in predicting effects, and interests consulted; and
- d) Recommended measures to mitigate any negative effects identified.



### 5.2 LAND USE BYLAW

The plan area is currently zoned Residential Lake Area District (R-RLA) and Agricultural District (A) according to the Lacombe County Land Use Bylaw No. 1056/07. It is anticipated that the entire land will be re-designated to Recreational Vehicle Resort District (R-RVR), Recreation District (P-R), Municipal Reserve (MR), Direct Control District (DC) and Environmental Reserve (ER) upon approval of this Concept Plan.

### 5.3 GULL LAKE MANAGEMENT PLAN (2000 UPDATE)

The proposed Sandy Point site is situated within the Lakeshore Management Policy area and therefore policies contained within the Gull Lake Management Plan (2000 Update) will guide the development of the plan area.

Based on discussions with Lacombe County, Sandy Point rather proposes to dedicate some of the lands located below the 1:100 flood elevation as Direct Control (DC) District and Environmental Reserve (ER). Land uses within the DCD are desired to be restricted to specified land use types. As mentioned in Section 4.2, Sandy Point desires to limit the impact on existing natural environments by restricting the types of land uses in the more sensitive natural environments. It is foreseen that a majority of these controlled areas will be solely restricted to recreational land type uses such as beaches, walking trails, and the marina.

According to the policies outlined in the Gull Lake Management Plan (2000 Update), the plan area is situated within the Private Residential and Accrued Land use designations. The Gull Lake Management Plan however is currently under review and update. At the May 14, 2009 Lacombe County Council Meeting, Council approved a motion to consider a Recreation Vehicle Resort as consistent with the intent of the Residential zoning as set out in the Gull Lake Management Plan. Therefore it was



determined that the Sandy Point development could proceed with the formal planning approvals process prior to the formal review and update of the Gull Lake Management Plan. Please refer to **Appendix A** for the May 14, 2009 Lacombe County Council Highlights.

# 6.0 DEVELOPMENT STRATEGY

### 6.1 OVERVIEW

The overall vision of the Sandy Point development is to create recreational living opportunities in an environmentally responsible manner, while using and enhancing the existing natural features onsite for public use and enjoyment. The Sandy Point development will create opportunities for various recreational uses within the Gull Lake area.

Gull Lake, and its respective shoreline are one of the most important natural features to take into consideration during the plan formation process. The developer has worked closely with an environmental consulting firm to develop a conceptual site plan that will both incorporate and protect these environmentally significant features into the plan development. Onsite mitigation measures will be established to offset any loss of natural habitat, although this loss will be predominantly avoided. Three areas of the Sandy Point site were ranked by environmental consultants in order of importance for preservation and conservation. These include: the Gull Lake shoreline, sedge meadow environments, and forested ridge onsite. These ecologically significant areas formed the foundation of the conceptual site plan development.

The protection of theses natural features will be accomplished through a variety of methods which will be outlined in further detail in the following sections. Some of these include but are not limited to:



- The use of Environmental Reserve and Direct Control District zoning along the shoreline of the site to aid in the protection of both the shoreline and sedge meadow environment.
- Temporary class II wetlands will be incorporated into the golf course design.
- The marina has been located on the southeast shoreline to protect the valuable sedge meadow environment in the north and to ensure that the Crown-owned point to the east of the site is left in its natural state. One of two marinas which was originally proposed for the development was located on the north shore of the plan area, which has since been removed.
- R-RVR lots will be clustered in three distinct areas of the site to preserve open spaces for the golf course and public use areas such as the day use and walking trail areas within the proposed DC District
- The amount of Environmental Reserve has been extended in both the north and the south shoreline to ensure protection of the sedge meadow environments in these areas

### 6.2 FUTURE LAND USE CONCEPT

The Sandy Point development is proposing to create an atmosphere that will cater to the recreational demands of lakeside living. The public will have access to a beach, boat launch, marina & fuelling station, walking trails, naturalized open spaces, picnic areas, playground, daily fee camping, golf course, clubhouse, general store, swimming pool, and volleyball courts for their recreational enjoyment. Residential opportunities will be provided through three clusters of Recreational Vehicle Resort lots.

The Conceptual Site Plan displayed on **Figure 9** highlights the overall vision and usage for the plan area. The Conceptual Site Plan reflects the findings of the review of all relevant background information. Specifically, the concept responds to the following critical factors:



- Lacombe County's existing statutory plans, with particular emphasis on the Municipal Development Plan;
- existing conditions such as natural features, current land uses, utility right of ways, gas well setbacks, and parcel boundaries, which result both in opportunities and constraints for future land use;
- existing and proposed transportation features;
- Public input obtained from Public Open Houses #1 & #2

### 6.2.1 **Property Ownership**

The majority of the the Sandy Point development is to be developed and operated as a Bare Land Condominium. A condominium corporation will have ownership of all common property. This strictly includes the RV resort area (R-RVR. The lands used for the golf course will be designated as Public Recreation and the lands that are proposed to be re-zoned as Direct Control District will allow only tolerated land uses (marina, walking trails, etc.), Both the Public Recreational and the Direct Control District will be privately owned and operated.

Lands that are to be re-zoned as Municipal Reserve (MR) will ultimately fall in the ownership of Lacombe County and become their responsibility to operate and maintain. This includes the public beach area and MR dedication within Stage III of the R-RVR development. The proposed public collector roadway serving as the primary access point o the Sandy Point development will also fall under Lacombe County ownership. Internal roadways within each R-RVR cluster will remain in the ownership of the condominium corporation.



### 6.2.2 Recreational Residential Development

The Sandy Point development will provide three stages of recreational vehicle resort developments, each containing approximately 550 to 650 lots for a total of approximately 1,750 lots. The first of these R-RVR clusters, Stage I, is located in the south eastern portion of the plan area (Figure 9). Stage II is located in the north eastern portion of the site and Stage III is located in the north-central portion of the site. These lots will house Recreational Vehicles and Park Model Recreational Vehicles. The majority of these R-RVR lots will be 13.72 metres in width and 28.9 metres in depth (Figure 11). The proposed lots intend on incorporating separation buffer strips between groups of lots and behind all lots. The buffer strips will be from 4-6 metres in width and are intended to both preserve the existing natural vegetation and features within the mature mixed wood forest and to provide a pleasing environmental atmosphere amongst the lots. It is anticipated that portions of the individual lots will be cleared for the purposes of construction the RV foundation pads and yards. The level of clearing will be dependent on a per lot basis.

Daily rental lots are located in the central portion of the site, situated between the two R-RVR development areas. These daily rental lots will have dimensions of 10.7 metre width by 21.3 metre depth. The requirements outlined within the Lacombe County Land Use Bylaw, 2010 update, will be followed with respect to site coverage, building height, parking, and yard setbacks will be followed for this portion of the development.



A significant buffer of Public Recreation land is provided between these R-RVR clusters and Gull Lake to ensure that these lots will not be highly visible from the lakeshore. Consistent with the Gull Lake Management Plan (2000 Update), residential development is not proposed within the 1:100 year flood elevation boundary.

### 6.2.3 Public Golf Course

A public 18 hole golf course is proposed in the central portion of the site, providing additional recreational activities for Sandy Point residents and members of the public. The golf course is proposed to be constructed alongside Stage I of the development. Storm water management facilities and the identified temporary wetlands will be interspersed throughout the golf course, providing both a utility function and a visual amenity. Native vegetation is intended to be incorporated into the golf course landscaping plan, including tree stands, forested slope areas, and the existing temporary wetlands. Where it is not possible to incorporate existing vegetation into the golf course design, vegetation and trees native to the area will be planted in lieu.



### 6.2.4 Inland Marina

The Sandy Point development will contain one inland marina available for use by both Sandy Point residents and the public. Based on the findings of the Biophysical Assessment, completed by Ecomark Ltd., the marina is best located in a naturally sheltered bay in the southeast portion of the site. The reason for locating the marina in the suggested location is that it will have the least environmental impact on the existing natural features. Originally, the conceptual site plan had located one of two marinas along the northern shoreline of the site, however the sedge meadow along the north shoreline is a more complete representation of this natural environment and as such the marina was relocated to the southeast shoreline. In addition, the prevailing winds make maintaining a marina along the north shore difficult in terms of sediment and siltation deposits. The Province also desires to protect the Crown-owned Point to the east of the property, which further impacted this location decision. Overall, the marina location was changed to a more desirable location and the number of marinas proposed was reduced from two to one due to a combination of the above factors. As protecting the environmental integrity of the Gull Lake shoreline is a top priority, various mitigation measures will be used during the marina construction process. Dry slips or dry stack storage may be used to stack boats, reducing the number of boats kept in the lake, and thus reducing the amount of bilge water. The proposed marina will contain one exit/entry point. This entry and exit point will follow the shoreline contour, reducing the frequency of dredging, and making the area more visually appealing. Piers will be designed to allow maximum sunlight penetration and to promote the flow-through of water.



Wherever possible emergent vegetation and submergent aquatic macrophytes will be maintained along the shoreline of the marina area, providing erosion control. Any sand material excavated during construction or dredging will be relocated to the beach development (Ecomark Ltd., 2008).

For further information regarding mitigation measures that may be utilized in the design and construction of the proposed inland marina, please refer to the Shoreline and Fish Habitat Assessment located in **Appendix E**.

### 6.2.5 Public Beach

One public beach area is proposed on the central shoreline of the plan area. The beach will be dedicated as Municipal Reserve to ensure ongoing public access. This area will contain beach volleyball courts, change rooms, and shower and bathroom facilities for public use. These amenities will be situated in upland areas, away from the waters edge to decrease the potential of erosion.

### 6.2.6 Natural & Open Space Areas

Lacombe County requires that a minimum of 20% of the gross condominium unit area be set aside for public or private green space areas. The proposed Sandy Point development includes a significant amount of passive, active, and naturalized common spaces and recreation areas to meet this requirement. A 10 metre wide trail is provided between the proposed golf course and R-RVR lots, which will efficiently move pedestrians between each R-RVR cluster and throughout the site to access the various amenities. Day use picnic areas and walking trails are proposed within the DCD portion of the site. Playgrounds are proposed within each stage of the R-RVR clusters.



The County has agreed to give a 50% MR credit for the area proposed to be developed as a public golf course. Land uses contained within the Municipal Reserve include the public beach, 10 metre wide trail system, bathrooms and change areas, and boat trailer parking, which will make up the remaining Municipal Reserve requirement.

Lands dedicated as Recreation District include the 18 hole golf course and clubhouse. The day use picnic areas, controlled storm water wetlands, and marina are located within the proposed Direct Control District. .

### 6.2.7 Environmental Reserve

Lacombe County requires that an environmental reserve easement of no less than 30 metres in width from the high water mark of water bodies be provided onsite as a condition of subdivision approval. The proposed development provides this 30 metre band of Environmental Reserve between the DCD and the bed and shoreline onsite. Where implemented, this Environmental Reserve band will provide a natural buffer between the Gull Lake shoreline and the development to ensure minimal impact on the lakeshore. This ER buffer is not provided in the beach area or the inlet/outlet of the marina; however provincial regulations will be followed with respect to these areas to ensure that the proper mitigation measures are followed.

### 6.2.8 Public Lands

The Sandy Point development intends to enhance and provide access to the public lands to the east, located at SW8 41-28-4, NW5 41-28-4, and SW5 41-28-4. Discussions are currently underway with Sustainable Resource Development to use the lands to encourage low impact recreational activities



including trail systems, interpretive facilities such as viewing platforms, and signage for the restriction of motorized vehicle use. This will provide the public with an opportunity to appreciate the natural features of the site with minimal disturbance.

### 6.2.9 Parking Areas

The Sandy Point development will provide sufficient space for onsite parking. The majority of public parking is located in the boat launch, inland marina, and clubhouse areas.. These areas will be interspersed with natural vegetation to assist with the efficiency of stormwater flow and recharge within the development.

Each R-RVR lot will have 2 parking stalls per unit, in accordance with the parking requirements outlined in the Lacombe County Land Use Bylaw No. 1056/07, February 11, 2010 update.

### 6.3 TRANSPORTATION NETWORK

### **Site Access**

To service the proposed Sandy Point development, an effective subdivision access layout has been proposed (Figure 9). The primary access will be provided from Range Road 1-1 to the west of the site by extending Range Road 1-1 north within the roadway allowance. The Sandy Point development will then be connected to the newly extended Range Road 1-1 east with a new residential collector road. The proposed collector road provides access to the central portion of the site, including the golf course, clubhouse, public beach, marina, parking lot, and Stage I R-RVR development. Traffic is then dispersed north from the centralized area to the future Stage II R-RVR or alternatively north from about mid point of the collector road to the future Stage III R-



RVR. A secondary access point will be provided to the Sandy Point development for emergency purposes only by extending the existing Township Road 41-0 east at the intersection of Range Road 1-1. The secondary access point will directly connect the existing transportation network to Stage I R-RVR of the Sandy Point development for emergency purposes only. Each Phase of R-RVR development will be accessed by internal local subdivision roadways to provide safe and efficient access to each individual lot.

### **Road Standards**

According to Lacombe County's current 'Road & Infrastructure Standards Manual', the residential collector road will be contained within a 20 m right of way, including an 8 m paved surface. The internal local roadways that provide access to each phase of development and will be contained within a 15 m ROW, including a 7 m paved surface. It is understood that Lacombe County's Operations Department is currently reviewing their subdivision road standards and that the requirements for public collector roadway may be required to change.



### 7.0 SUBDIVISION SERVICING STRATEGIES

### 7.1 WATER SERVICING

The Sandy Point subdivision proposes to develop a communal ground water distribution system. An in depth "Well and Aquifer evaluation report, conducted by Waterline Resources Inc. has been completed to research and evaluate the ground water supply for the Sandy Point development. In 2003, three wells were drilled for the purposes of conducting the evaluation report. Well A, was drilled as a shallow well (27.43 m below ground level), where as Wells B and C were drilled as wells (54.86 m below ground level). The varying depths were drilled with the anticipation of intersecting two different distinctive aquifers. Once the wells were drilled, they were tested for production transmissivity and analysed for hydraulic communication among one another. It was determined that Well A is completed in a shallow Paskapoo Formation sandstone aquifer while Wells B and C are completed in a deeper Paskapoo Formation sandstone aquifer that apparently isolated from the shallow system (Waterlines Resources Inc., 2008). Testing demonstrated that the deep aquifer can sustain the water requirements of the proposed Sandy Point development (~1,750 lots operated year round) and that groundwater diversion from the tested wells, at the rates required, will not reasonably interfere with each other or existing users of the groundwater source (Waterline Resources Inc. 2008). It will not negatively impact the aquifer or other aquifers and surface bodies or harm the environment in general, if managed properly (Waterline Resources Inc., 2008). Alberta Environment approvals and licensing of these wells is required prior to site development (Appendix K).



### 7.2 SEWAGE TREATMENT AND DISPOSAL

The developer has been in discussion with Alberta Environment and Lacombe County regarding sewage treatment and disposal options onsite. Two options for wastewater treatment have been highlighted to Alberta Environment for their input. Confirmation has been received by Alberta Environment that either one of the two options are viable if they are accompanied with detailed engineering design and approval from Alberta Environment. . The first option includes onsite treatment with an approved "Treatment Facility," involving the effluent generated being used for irrigation of the golf course. Additional effluent irrigation permits and requirements must be approved by Alberta Environment. The second option is to construct a pipeline from the Town of Bentley lagoons to the Sandy Point property, at which point the development would tie into the pipeline. Sandy Point desires to bring the treated water back to the development site in order to assist in irrigating the golf course. The second option allows for the expansion of servicing to the residents of both Lacombe County and the Town of Bentley as the population grows to the East. Sandy Point is currently pursuing both options as acceptable means to manage waste water for the proposed development. Further discussions and feedback from Lacombe County are still required however in order to move forward with the matter.

### 7.3 STORMWATER MANAGEMENT

A detailed Storm Water Management plan will be submitted and approved by Alberta Environment prior to any construction onsite. Alberta Environment requires that a storm water management plan be created for a proposed development so that they can ensure post development runoff rates and water quality is either consistent or better then pre development parameters. Alberta Environment requires approval under either or both the Water Act of the Environmental Protection and Enhancement Act (EPEA) depending on what variables a proposed development triggers. Approval under the Water Act is required when post development runoff rates are differ then pre



development runoff rates and approval under the EPEA is required when a storm water management facility, an outfall or a pipe underground system is to be constructed. The Storm Water Management Plan for the development would see that Alberta Environments Best Management Practices (BMPs for assuring the quality of storm water runoff to meet minimum standards will also be addressed. It is proposed to manage storm water runoff generated from the site through a combined overland and piped system. Storm Water will be collected in holding ponds strategically placed throughout the development and may be considered to be used for supplemental irrigation of the golf course. The amount of storm water runoff that can be retained on site for the purposes of irrigation on the golf course depends on the findings of the pre vs. post analysis and the limits of the Water Act. Storm water management facilities within the resort we will be able to control the quality and quantity of storm water runoff going into the lake.

# 8.0 TECHNICAL REPORTS: CONTEXT OVERVIEW

### 8.1 TRANSPORTATION AND ACCESS

A.D. Williams Engineering Inc. initially completed a Traffic Impact Assessment to examine any effects that the proposed subdivision would have on surrounding roadways and infrastructure. Three intersections, Highway 12 & Range Road 1-1, Range Road 1-1 & Township Road 41-0, and Range Road 1-1 & Township Road 41-1, were examined to determine the impact of existing and future development traffic over the next 25 years. This analysis however was based on the initial conceptual site plan, containing a higher lot count. A modification to the TIA will be required as the conceptual site plan as it currently stands includes considerably fewer lots than originally proposed. It is also understood that Alberta Transportation is considering some re-alignment options of Highway 12 through and near the Summer Village of Gull Lake. Due to the proximity of the Sandy Point development and Highway 12, the



amended TIA will also have to take into consideration the proposed re-alignment details. Please refer to **Appendix B**.

### 8.2 ENVIRONMENTAL CONSIDERATIONS

### 8.2.1 Phase I Environmental Site Assessment

The Phase I Environmental Site Assessment (**Appendix C**), completed by Ecomark Ltd., revealed two key findings:

- The greatest potential environmental liability concerns the operation of the gas
  well located immediately west of the subject property. It is recommended that
  a Phase II ESA be conducted along the property boundary to determine if any
  hydrocarbon, salt, or metal contamination has migrated on to the property.
- It is recommended that a Phase II ESA be conducted in the area of the abandoned well site on the property as well, to determine if there is any contamination present. If it is revealed that the dugout onsite is located over the abandoned wellhead, water from the dugout will be sampled and submitted for necessary testing.

### 8.2.2 Biophysical Assessment

It was concluded by the Sandy Point Biophysical Assessment (Ecomark Ltd., 2008) that the most valuable vegetative features on the property are as follows:

- .1 The shoreline along Gull Lake
- .2 The sedge meadows along the shoreline
- .3 The mature mixed wood forests of the forested slopes



### Further key recommendations include the following:

- It is recommended that the mixed wood forest along the north and east-facing slopes towards Gull Lake be incorporated into the site design.
- Young deciduous forest vegetation and mature hedgerows that must be removed should be replanted with vegetation native to the Central Parkland sub region of Alberta.
- To protect the sedge meadow environments, a 30 m vegetated buffer should be applied from the ordinary high water mark of Gull Lake, and be dedicated to Environmental Reserve. Sedge meadows should also be incorporated within the site development where possible.
- The bands of emergent aquatic vegetation and beds of submergent aquatic macrophytes should be maintained along the shoreline where possible.
   Removal of the aquatic vegetation will likely require fish habitat compensation under the Fisheries Act.
- The Temporary Class II wetlands onsite do not provide high quality habitat for plants and wildlife due to the past agricultural activities. Despite this, these wetlands are naturally occurring and therefore wetland compensation may be required for the loss of these areas under the Water Act. However, well designed naturalized stormwater management facilities may provide adequate compensation for this.

There are no known provincially or globally ranked plant, fish, or invertebrate species of concern on or near the subject property. There were however several bird, reptile, and mammal species of concern on or near the site. For further information please refer to **Appendix D**.



### 8.2.3 Shoreline and Fish Habitat Assessment

A Shoreline and Fish Habitat Assessment for the Sandy Point area was completed by Ecomark Ltd. The report outlines various mitigation measures that will help to reduce the effects of the proposed development on the Gull Lake shoreline. Specifically, these mitigation measures consist of a combination of construction practices, timing restrictions, fish transferring methods, monitoring, compensation, and a sediment and erosion control plan. Through this variety of mitigation measures, it can be assured that the development will strive to protect the Gull Lake shoreline to the extent possible. The key mitigation measures are as follows:

- An in-water silt barrier should be installed around the construction site to isolate disturbed, turbid areas during construction, and will be removed after sediment has had time to settle. A series of silt fences will also be utilized in upland areas to prevent sediment from entering the lake.
- No construction or dredging activities should occur during critical fish spawning periods.
- After the in-water silt barrier is installed and prior to construction activities, fish will be netted and placed outside of the work area.
- A Qualified Aquatic Environmental Specialist (QAES) will be onsite to monitor water quality during construction and dredging activities, and a postconstruction monitoring report will be submitted to Fisheries and Oceans Canada following construction activities.
- Spill kits will be available onsite to respond to potential release of toxic materials.
- If the site experiences high water levels or heavy rainfall, construction will cease until water levels have subsided.
- All gravel and coble excavated onsite will be used to build an alternative lake whitefish spawning area off of the public lands area, south of Sandy Point.



 Design features of the marina and public beach will reduce the negative impacts on the Gull Lake shoreline. Please refer to Section 5.3.4 and 5.3.5 of this Concept Plan for further design details.

It was concluded by the Shoreline and Fish Habitat Assessment that the proposed mitigation measures will significantly reduce the amount of HADD caused by the proposed development. For further information, please refer to **Appendix E**.

### 8.2.4 Environmental Review

The Environmental Review, completed by Ecomark Ltd. (2008), concludes that the proposed Sandy Point development is an ecologically appropriate development due to the mitigation measures that will be utilized to alleviate adverse impacts to the most sensitive biophysical features. These features include: the shoreline along Gull Lake, the sedge meadows along the shoreline, and the mature mixed wood forests of the forested slopes. A number of mitigative measures were recommended within the report to assist in creating an ecologically appropriate development. For further information please refer to **Appendix F**.

### 8.2.5 Boat Use Study

Ecomark Ltd. completed a Boat Use Study on the Gull Lake area (2008). Boat use is considerably lower in Gull Lake in comparison to other Central Alberta Lakes, such as Sylvan Lake and Pine Lake. The current boat concentration within the lake falls within a 'semi-primitive setting,' according to the 'Ranges of Reasonable Boating Capacity Coefficients'. The proposed development is not expected to contribute more than 200 additional boats to the current boat concentration or cause Gull Lake to exceed a 'rural developed setting.' For further information, please refer to **Appendix G.** 



### 8.2.6 Historical Resources Impact Assessment

An application was made to the Culture and Community Spirit Branch of Alberta Historic Resources Management to determine whether there is potential for historic artefacts to be present on the subject property. It was concluded that a Historic Resources Impact Assessment will not be required for the Sandy Point plan area. For a copy of the Historical Resources Impact Assessment letter, please refer to **Appendix H**.

### 8.2.7 Geotechnical Report

According to the Geotechnical Investigation completed by Parkland Geotechnical Ltd., the subsurface conditions at the site are considered to be suitable for the proposed Sandy Point development. The geotechnical conditions onsite are considered to be fair to good. Conventional footings will be capable of supporting light to moderate foundation loads with bearing capacities in the order of at least 100kPa. For further information regarding geotechnical findings please refer **Section 4.3** and to **Appendix I**.

### 9.0 SUMMARY OF PUBLIC CONSULTATION

The public communications component of the plan preparation process involves a required public open house to obtain public feedback on the proposed plan. During the preparation of the Sandy Point Concept Plan, two public open houses will be held to inform members of the public and stakeholders of the development and provide an opportunity for their input in regard to possible design and construction issues.



Public Open House # 1 was held Nov 18, 2008 at the Bentley Community Centre in the Town of Bentley. The developer and representatives from Williams Engineering Canada Inc. were present at this open house to answer any questions about the proposed development. Three concept plan options were presented at this meeting for community feedback. The public open house was well attended with 98 participants. Initial concerns from the public included: waste water treatment, storm water runoff, lake access, lake water quality, development density, the potential impacts of the proposed marina, and local infrastructure. With the feedback from this initial open house, the developer was able to create a new vision for the plan area which has taken these various concerns into consideration:

A second Public Open House was held on April 12, 2010 at the Blindman Valley Ag. Centre in Bentley to provide information to the public regarding the proposed Sandy Point Resort. Present at the meeting were the developers, a project team representative from Williams Engineering and a representative from Klohn Crippen Berger Engineering.

The presentation consisted of an information handout, two display areas showing the concept plan drawing, a power point presentation and a question and answer period. A total of 57 people signed in for the meeting including staff and councillors from Lacombe County. Comment sheets were distributed with a return date of May 1, 2010. A total of 5 comment sheets were returned. The five comment sheets were included with the submission of the Public Open House Summary Report to Lacombe County. The main issues raised during this public open house include water and sanitary servicing concerns, boat usage on the lake, marina construction, and transportation concerns.



As a result of these public consultations and as a result of discussions with the County and various provincial government departments, many changes have occurred to the Conceptual Site Plan over the past two years. Major Conceptual Site Plan changes include:

- Reduction in the number of marinas proposed (one instead of two)
- · Reduction of the marina size
- The number of R-RVR lots has decreased significantly
- The R-RVR lots have been clustered in three distinct areas of the site as opposed to being interspersed throughout the golf course
- The public beach is dedicated as municipal reserve to ensure ongoing public access
- The Environmental Reserve buffer along the shoreline has widened in the north and south of the site to protect the sedge meadow environments in these areas
- Direct Control District is proposed for lands between the R-RVR clusters and the ER buffer along the shoreline. Included in the DC District are the marina, controlled Stormwater ponds, and day use and natural walking trail areas
- Public Recreation has been dedicated to the lands containing the proposed golf course and clubhouse area
- A 15.7 acre Municipal Reserve area has been added to Stage III of the R-RVR lot clusters



# 10.0 PLAN IMPLEMENTATION

## 10.1 PLAN AMENDMENTS

A re-designation application will be required to amend the land use designation of the subject parcel from Agricultural District (A) District and Residential Lake Area District (R-RLA) to Recreational Vehicle Resort District (R-RVR), Recreation District (P-R), and Direct Control District pending approval of this Concept Plan. An application and applicable fees will be submitted to Lacombe County prior to First Reading of the Concept Plan. It is anticipated that the entire plan area will be rezoned simultaneously.

#### 10.2 PHASING

Development will progress in the manner illustrated on **Figure 9**. The exact phasing of the project may vary from this plan based on current market conditions, future demand, and the timing of services in order to develop the site in a logical manner and to reduce infrastructure costs. Full build out of the development is expected to occur in 30 years.

The development consists of three major stages of R-RVR development. Each stage is divided into 5-6 phases and contain approximately 600 lots (approximately 100 lots per phase). Stage I will incorporate the phased development of 600 Resort Lots, the clubhouse, public beach, walking trails, golf course and the first phase of the inland marina. It is anticipated that the completion of sales for Stage I will occur in eight to ten years. Development of Phase II will not commence until Stage I is substantially sold out. Stage III will include development approximately 20 years in the future. At the time of full build out, it is anticipated that the site will contain 1750 lots.

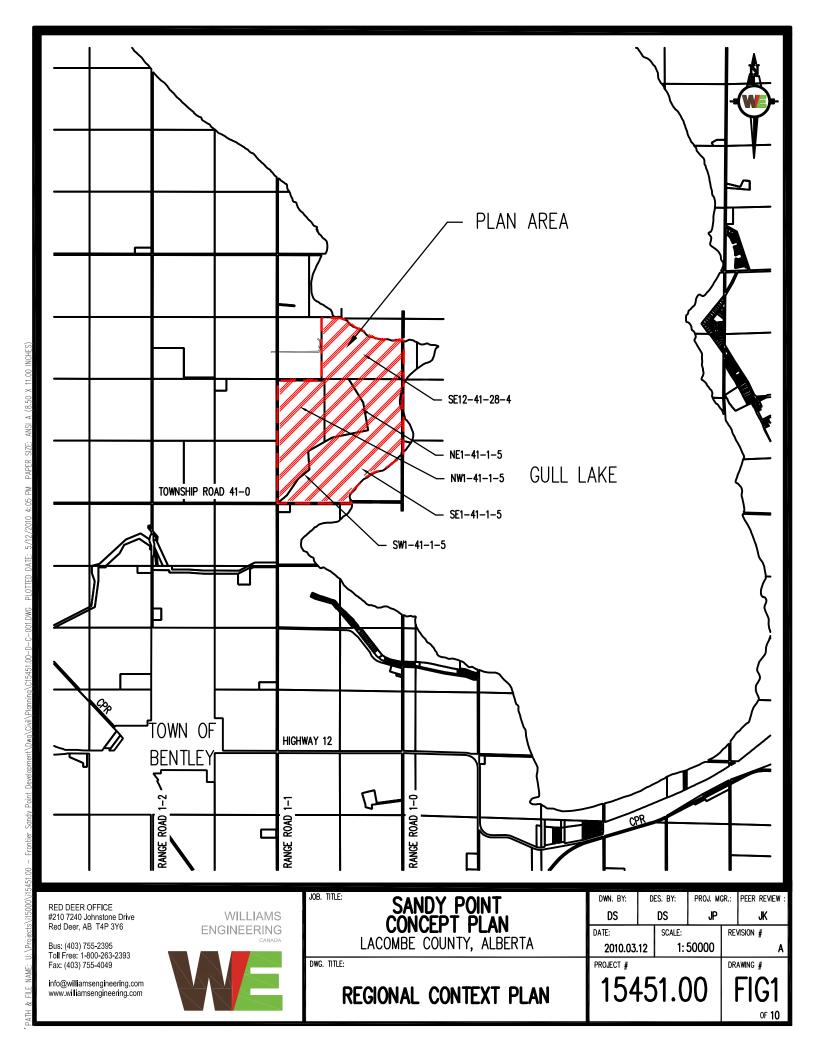


### 10.3 SUMMARY

The Sandy Point development will create recreational living opportunities for a wide range of income levels, age groups, and lifestyles, in an environmentally responsible manner. Through careful planning and in consultation with appropriate stakeholders, it will be ensured that the development makes every effort to minimally affect the natural features onsite. The Sandy Point development will provide residents and the general public with recreational amenities such as a public golf course, public beach, marina, walking trails, and naturalized green space, and therefore become an asset and attraction to the Gull Lake area.







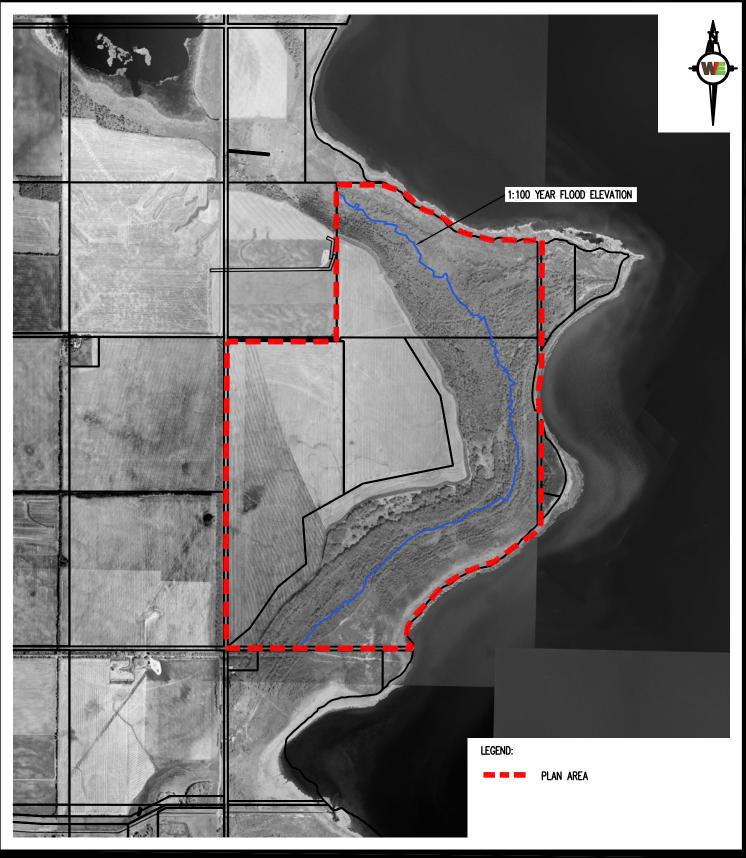
**CURRENT LAND USE** 

PEER REVIEW

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JK

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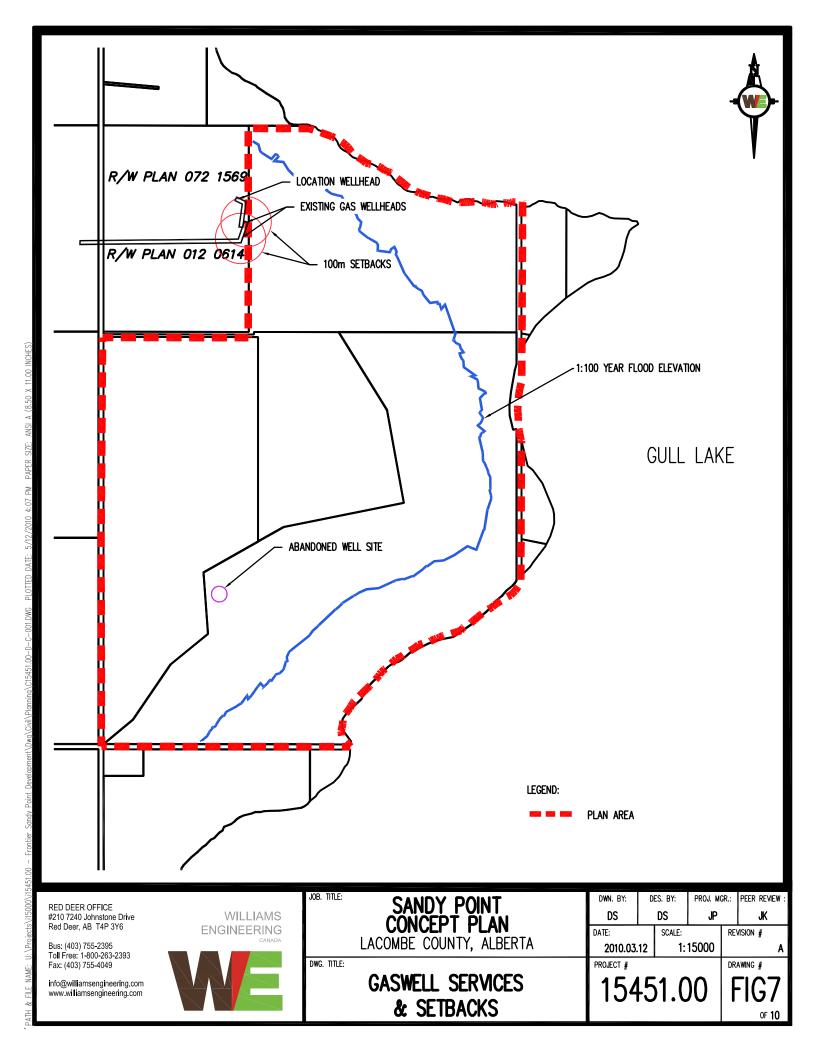
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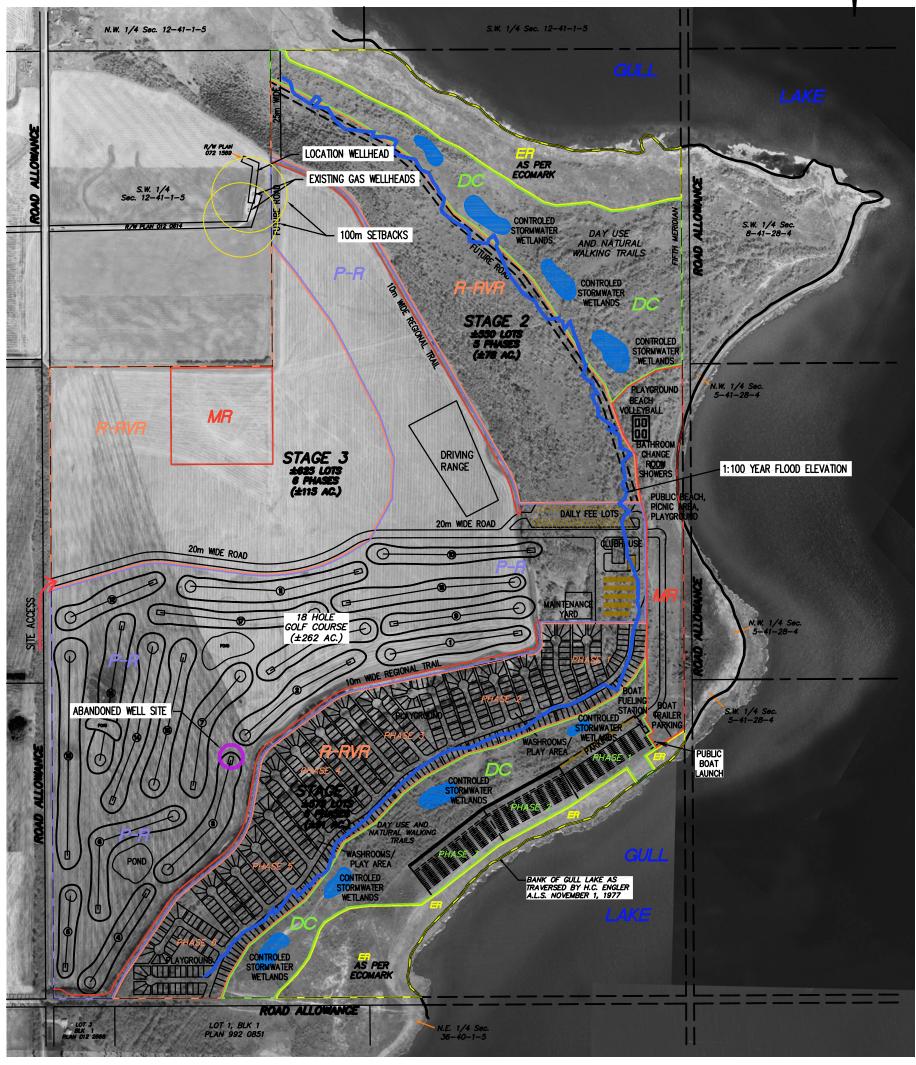
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# LEGEND:

R-RVR RECREATIONAL VEHICLE RESORT DISTRICT P-R RECREATION DISTRICT

DC DIRECT CONTROL / DISTRICT
ER ENVIRONMENTAL RESERVE
MR MUNICIPAL RESERVE

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DWG. TITLE:

Job. Title:	SANDY POINT CONCEPT PLAN
	LACOMBE COUNTY, ALBER

LACOMBE COUNTY, ALBERTA

CONCEPTUAL SITE PLAN

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Bus: (403) 755-2395 Toll Free: 1-800-263-2393

info@williamsengineering.com

Fax: (403) 755-4049

DATE: (YYYY-MM-DD)

PROJECT #

STAGE 1 LOT LAYOUT

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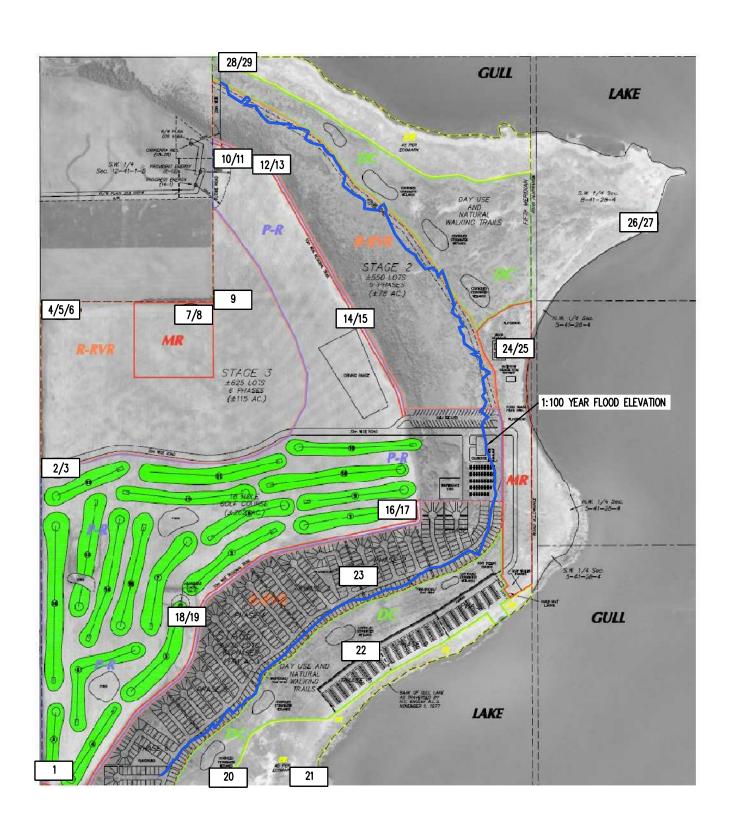
DIRECT CONTROL / DISTRICT ENVIRONMENTAL RESERVE

MUNICIPAL RESERVE

P-R

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JOB. TITLE: SANDY POINT CONCEPT PLAN

DWG. TITLE:

LACOMBE COUNTY, ALBERTA

PHOTO REFERENCES

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