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LACOMBE COUNTY

Lacombe County

Sylvan Lake Area Structure Plan

October 14, 2010

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Lacombe County

Sylvan Lake Area Structure Plan

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Project Number:
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October 14, 2010

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1. Introduction

1.1 Plan Area

The Sylvan Lake Area Structure Plan (ASP) covers both the west and east sides of the lake within Lacombe County. The size of the ASP area is approximately 7,509 hectares (18,555 acres). Figure 1 – Plan Area shows the location and Plan boundaries of the ASP.

This ASP area has been experiencing considerable development pressure, particularly for residential use. The County has prepared this ASP to develop a policy framework to direct future development in a manner that protects the lake water quality, ensures public access to the lake and a high quality experience for residents and visitors.

1.2 What is an Area Structure Plan (ASP)?

An Area Structure Plan (ASP) is a statutory plan prescribed in the Municipal Government Act that is generally required for large areas or parcels of land within Alberta on which some or no development has taken place. An ASP such as this one identifies where residential and commercial uses, as well as park space will be located in general terms and how essential municipal services such as water, sanitary and sewer systems, and major roads will be provided. The ASP, once approved, provides guidance to Council for more detailed land use, development and subdivision decisions, while providing the public with a sense of the vision, plan, and impacts of the future developments.

From time to time, it is necessary for a variety of reasons, to amend an ASP bylaw. The amendment process resembles the ASP approval process and requires a public hearing and three readings of the amending bylaw.

1.3 Planning Process & Consultation

As a prelude to the preparation of the Area Structure Plan, the Lacombe and Red Deer Counties hosted a stakeholder meeting in March 2005 to develop a common vision for the West Sylvan Lake portion of the Plan Area. More than thirty representatives attended the workshop. The results of the meeting are captured by the planning principles and objectives described in Section 4 of the *Background Final Report for the West Sylvan Lake Joint Area Structure Plan (UMA Engineering Ltd., October 2005).*

AECOM (then UMA) hosted another "visioning" workshop (design charrette) in May 2005. The Co-Design Group was contracted by AECOM to lead the workshop. More than forty people comprised of local municipal officials, provincial government officials, representatives from different community organizations, area residents and landowners attended the workshop. A summary of the workshop results is included in the *Background Final Report for the West Sylvan Lake Joint Area Structure Plan (UMA Engineering Ltd., October 2005)* on pages 4 and 7-26. A complete record of the workshop results can be found in the *Lacombe County and Red Deer County West Sylvan Lake Joint Area Structure Plan: Phase 2 Co-Design Charrette Report* prepared by the Co-Design Group, June 2005.

1.4 Vision & Goals

1.4.1 Vision

The beauty of Sylvan Lake and its uniqueness as possibly the highest quality central Alberta lake, demand that it be protected while it is being enjoyed. In the visioning workshop held for the west side of the Lake, the public described an active, vibrant Sylvan Lake community in Lacombe County. Their vision called for sustainable new development that allowed many to enjoy the Lake in perpetuity while respecting it. Many of the images from this visioning process are included in this Plan.

1.4.2 Purpose & Goals of the Area Structure Plan

1. Create a clear and comprehensive set of policies to guide land use decisions.
2. Ensure that Sylvan Lake continues to provide residents and visitors with enjoyable and memorable recreational experiences far into the future.
3. Manage growth around the lake to ensure the long term health and sustainability of the lake as a recreational resource for all Albertans.
4. Minimize the impacts of growth on existing area residents.
5. Provide a clear growth blueprint to facilitate regional, technical and political solutions to maintaining lake water quality and improving public lake access.

B SIZE 11" x 17" (279.4mm x 431.8mm)

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Rainy Creek Road
Twp Rd 39-4
Twp Rd 39-2
Hwy 11
Hwy 11A
Aspelund Road
Hwy 20
Rge Rd 2-5
Rge Rd 2-4
Rge Rd 2-3
Rge Rd 2-2
Rge Rd 2-1
Rge Rd 2-0
Rge Rd 1-5
Rge Rd 1-4
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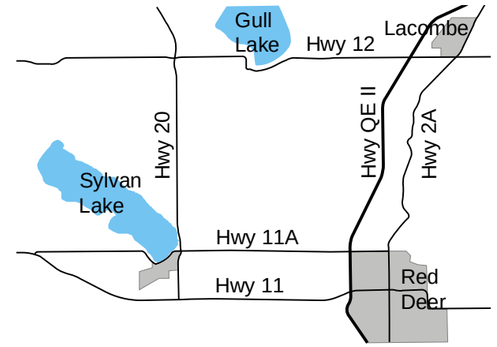
03
02
Palm Bay
Sylvan Lake Natural Area
S.V.of Sunbreaker Cove
Blissful Beach
Eagle's Quay
Yuill
Westside Country Estates
Kuusamo Krest
Sylvan Lake
S.V.of Birchcliff
S.V.of Half Moon Bay
Silver Springs
Lacombe County
Red Deer County
Jarvis Bay Provincial Park
S.V.of Jarvis Bay
S.V.of Norglenwold
Town of Sylvan Lake



REGIONAL MAP

0 5000 10000 m SCALE 1:500000

LEGEND

- Plan Area Boundary
- Paved Road
- Gravel Road

N

0 500 1000 m SCALE 1:50000

AECOM

Lacombe County
Sylvan Lake Area Structure Plan

Plan Area
Figure 1

2. Development Plan

2.1 Planning Areas

2.1.1 Lake Development Area

The Lake Development Area (LDA) surrounds the lake and contains almost half of the ASP area. It has a total gross area of 3448 hectares (8,521 acres). This includes existing subdivisions and lands that have been rezoned to allow new development. The LDA is the same as the lands identified as “appropriate for residential development” in the Sylvan Lake Management Plan (2000). See Figure 2 – Planning Areas. This area generally coincides with the watershed on the east side of the lake and extends approximately 1.6 km from the lake on the west side.

The Lake Development Area includes the shoreline that provides lake access for both residents and the public. A regional trail is proposed that will follow the shoreline in areas where the topography permits. The LDA is proposed for various types of residential development and some supporting commercial uses. The highest density of development will occur within this area.

(a) Parcels divided by the Lake Development Area boundary

A number of parcels on the northeast side of the lake are divided by the LDA boundary. In other words, one portion of the parcel is within the LDA and the other is not. In such instances:

(1) Development, including the remnant lands created by a development, shall only occur in the portion of the parcel that is within the LDA;
(2) The development density shall be calculated based on the area that is within the LDA; and,
(3) The LDA boundary may be re-evaluated based on detailed site-specific surveyed contours. The LDA boundary may not, however, extend beyond the watershed boundary.

Policies

1. Multi-lot/unit residential and supporting commercial development shall only occur within the Lake Development Area identified in Figure 2 – Planning Areas.

2.1.2 Agricultural Area

The Agricultural Area, or lands within the ASP boundaries but outside of the lake development area, contains a total of 4,081 hectares (10,084 acres). This Agricultural Area includes both lands within and outside of the Sylvan Lake watershed (lands draining into the Lake). When the Sylvan Lake Management Plan was prepared, a development area approximately a mile in width around the lake was identified as the Lake Development Area. This boundary generally coincided with the drainage area boundary on the east side of the lake. On the west side of the lake, however, there is a large area within the watershed but outside the one mile development area. The land outside of the watershed (agricultural area), therefore has no connection with the Sylvan Lake area in terms of drainage, views, or inclusion in the Sylvan Lake Management Plan.

The lands outside the lake development area will remain in modified agricultural use as permitted under the current MDP and Land Use Bylaw. They have been included in the ASP boundaries because they will be affected by their proximity to the lake. Impacts on these lands from lake development will include:

- Increased traffic flows and road maintenance concerns,
- Market demand for recreational, repair, storage and other uses,
- Possible nuisance concerns between agricultural and lake residential uses

If a landowner within the Agricultural Area wishes to develop their lands, the new use must be a permitted or discretionary use within the Agricultural District of the County"s Land Use Bylaw. Section 7.1 of the Land Use Bylaw should be consulted for a detailed list of allowable uses. Land use redesignations to uses other than what are listed in the Agricultural District will not be supported in the agricultural area.

Policies

1. Existing businesses will be allowed to continue or may be expanded at the discretion of the County as long as they meet municipal guidelines and standards.

2. Existing agricultural uses are allowed to continue within the Plan Area.

Rainy Creek Road
Twp Rd 39-4
Twp Rd 39-2
Hwy 11
Hwy 11A
Hwy 20
Aspelund Road
Rge Rd 2-5
Rge Rd 2-4
Rge Rd 2-3
Rge Rd 2-2
Rge Rd 2-1
Rge Rd 2-0
Rge Rd 1-5
Rge Rd 1-4
Palm Bay
Sylvan Lake Natural Area
S.V.of Sunbreaker Cove
Blissful Beach
Eagle's Quay
Yuill
Westside Country Estates
Kuusamo Krest
Silver Springs
Sylvan Lake
S.V.of Birchcliff
S.V.of Half Moon Bay
Jarvis Bay Provincial Park
S.V.of Jarvis Bay
S.V.of Norglenwold
Town of Sylvan Lake
Lacombe County
Red Deer County

LEGEND

- Plan Area Boundary
- Watershed Boundary
- Lake Development Area[1]
- Agricultural Area

[1] The ASP Lake Development Area (LDA) coincides with the Sylvan Lake Management Plan (SLMP) Lake Development Area. Note: The LDA extends outside of the Sylvan Lake watershed in some places. This is because the SLMP watershed boundary and Lake Developent Area were based on old contour information. The Sylvan Lake ASP has incorporated the revised watershed boundary based on updated contour data and has honoured the original SLMP Lake Development Area boundaries.

N

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SCALE 1:50000

AECOM

Lacombe County
Sylvan Lake Area Structure Plan

Planning Areas
Figure 2

2.2 Development Capacity

The Sylvan Lake Management Plan 2002 Update identified the - „Lake Development Area, where further residential and recreational development may be considered" (Figure 2). It also contained a number of polices to be applied in considering new development. The Management Plan left to ASPs such as this one the task of determining the total development capacity, allowable densities, development locations and sequencing.

As the lake ecosystem and water quality is the basic strength of the region, the primary growth determinant is the biological capacity of the lake to sustain additional housing and recreational activities. Maintaining the recreational capacity of the lake and the quality of life for residents and visitors was also a primary consideration.

The primary impact of development on water bodies in environments similar to Sylvan Lake is from sanitary effluent and contaminated storm runoff. Uncontrolled storm runoff travels across „polluted" surfaces, carrying undesirable materials and compounds into the water body (e.g. fertilizers, pesticides, and petrochemicals). Effluent contaminants from these sources may reach the water body directly or through percolation into the groundwater.

Modern construction methods, when properly applied, are capable of preventing any sanitary or unplanned storm flows from reaching a water body except in extraordinary circumstances (e.g. greater than 100 year flood). If such flows associated with new development can be redirected to „safe" storage and treatment away from the lake, then by far the most significant source of water quality contamination can be removed. It should be noted that currently the primary source of contaminants (nitrogen, phosphorus) is runoff/snow melt from agricultural operations.

The impacts from these sources and best practices required for lake development in other jurisdictions were considered. It is recognized that a serious challenge in managing the health of a lake is that a biological system may take a very long time to recover from damage. Sylvan Lake is an important and very unique provincial resource and

it would be unreasonable and unjustified to refuse to allow development based on fears of possible ecosystem damage that have proved avoidable in many lakes throughout the world.

The approach pursued in this ASP is that development around the Lake should not be restricted or curtailed without clear and defensible scientific or other rationale. Instead, development will be allowed to proceed **in phases** under a carefully monitored regime to a maximum of approximately 8500 dwelling units (21,250 people based on 2.5 people per dwelling unit[1]). This population is based on an overall density of one unit per acre, for the lands identified as the Lake Development Area (8,521 acres). Existing units/lots as part of multi-lot subdivisions will be included as part of the 8500 units. Once the 8500 unit level has been reached, no further development will be allowed, even if certain lands have not been developed in any way, without an amendment to the Sylvan Lake Area Structure Plan. The density of one unit per acre is in keeping with other density standards for subdivisions and municipalities (summer villages) around the Lake, both within and outside of the Plan Area. Density levels for individual subdivisions may exceed 1 unit per acre.

Note: The 8500 units are a long term projection and are not likely to be reached even in the next 30 to 40 years.

Policies

1. The maximum development allowed within the Lake Development Area of the Sylvan Lake ASP, will be approximately 8500 dwelling units based on an overall density of one unit per acre.

[1] *Dwelling unit or unit in this Plan means a building or a portion of a building containing one or more habitable rooms that constitute a self contained living accommodation unit having sleeping, washroom and kitchen facilities. It can refer to a single family dwelling, semi-detached dwelling, cabin, RV, or a dwelling unit as part of a multi-family development, such as a townhouse unit or apartment unit.*

2.2.1 Planning Considerations - Peak vs. Average Day Use

Evaluating the amount of development to be allowed around the Lake raises a number of challenging questions. One of the major concerns is whether future population levels should be based on an analysis of peak day use or average year-round use of the Lake and other facilities. If planning mainly focuses on the relatively few peak use days, significant constraints to future development would be necessary. All tourist destinations such as Sylvan Lake have extreme seasonal variations in populations. However, the basic essential infrastructure services - primarily water, sanitary sewers, roads and emergency services are designed to be able to meet peak use requirements. The „less" essential services and facilities (e.g. amount of beach/park area, retail services, boat launch capability and parking) are somewhat self regulating in the face of summer weekend crowding and were not considered as essential planning constraints. Thus, this Plan is based on the assumption (and requires) that the basic essential services for peak days be available. However, it does not limit future population to ensure that „secondary" services are conveniently available year round; there will continue to be difficulty finding parking, a restaurant table and a place on a sandy beach on some summer days. Congestion on those days is likely to increase with the region"s population growth. The municipalities bordering the Lake and the Province have the responsibility to manage summer crowds as effectively as possible given physical and financial constraints.

Town of Sylvan Lake growth

The Town of Sylvan Lake has approved a growth strategy that could see the town population increase to 60,000 in the next 50 years. Planning for growth in the County in this Plan has considered the town"s projected growth as both municipalities impact the Lake, roads and certain services. The County is confident that the „staged" growth approach proposed in this Plan will allow systematic scientific monitoring of the Lake water quality and provide sufficient notice to delay or prohibit additional development if deemed appropriate. The County and the Town cooperate on the monitoring and development of management approaches for the Lake through the Sylvan Lake Management Plan Committee.

Permanent and seasonal residents

It is expected that although the great majority of the new dwelling units that will be built under this Plan will be occupied for only a small portion of the year generally during the warmer months, there will be an increasing number of residents who chose to live year-round near the Lake. Although permanent and seasonal residents pose different demands on soft and hard services, this Plan and normal County (and Town) operations will be able to serve an increasing permanent population as well as typical summer weekend residents. In other similar situations, the urban centre (e.g. the Town of Sylvan Lake) would provide some of the services (e.g. library, recreational services, social

services) desired by the County residents. These questions, and others, were considered through public input, expert opinion, examination of best practices elsewhere, and reference to policies approved in the past by area municipalities.

2.3 Development Phasing

The approach taken in this ASP is that all multi-parcel development will only be allowed in phases. There will be a „**no rezoning or subdivision approval'** period (NRSA) during which no additional multi-lot/unit residential or commercial rezoning or subdivision will be approved and a „**development review period' (DRP)** will be implemented which will act as a „breathing space" between development phases. The DRP will be utilized to evaluate the impacts of previously constructed development.

The first NRSA period will be initiated after the first 2000 unit phase which includes all current approvals. After that, development will be allowed in 1000 dwelling unit (~2500 people) increments to the maximum of 8500 units. Once the first 2000 units have received rezoning approval and subsequent conditional subdivision approval, a minimum two year NRSA period will be imposed by Council before additional development will be approved. At some point during this NRSA period 1000 units of the approved 2000 will actually be constructed and the DRP can be initiated to evaluate the impacts of the new development. Once Council reviews the impacts of the new development and is satisfied that development can proceed the next development phase will start. This process will continue using 1000 dwelling unit increments with 500 being constructed to initiate the DRP until full development of 8500 units in the Lake Development Area is reached. All new dwelling units of all types (i.e. single/semi detached, cabins, RV, multi-family, etc.) will be included in the dwelling unit calculations.

This is a unique approach to controlling development and is undertaken to protect the lake water quality and the quality of life of area residents and visitors. It is impossible to predict exactly how much development will occur over

the next decades and what its impacts will be, so this phasing and monitoring approach will be used. The phasing will be cumulative and the DRP will not commence until half of the units approved in the development phase and 75% of the units allowed in previous development phases have been constructed.

Land owners and prospective developers must realize that although this ASP allows development throughout the watershed area in principle, such development is dependant on Council"s determination on an ongoing basis that the lake water quality will not be unreasonably affected by new development. „Partial", „preliminary" , „in principle", „Council endorsement" approvals, including bylaws that have only received first and second readings, do not constitute approval of a development. Approval is understood to mean the final approval of a rezoning application (3rd and final reading by Council) and the approval of conditional subdivision.

During the DRP, the County will monitor the impact of the new development on the lake from a biological and social perspective. Should Council/Approving Authority deem that additional development will jeopardize the water quality, seriously impact the quality of life of existing residents, or decide that other factors would recommend against further development, it may do one or all of the following:

1. Impose additional controls over further development;
2. Restrict development further (i.e. below 8,500 dwelling units); and,
3. Refuse to allow any further development regardless of previous approvals of policy/statutory documents or redesignations.

Policies

1. For the first phase (review period), rezoning and conditional subdivision approvals may be made until 2000 dwelling units have been approved. Once this number of approvals has been reached, the minimum two year NRSA period will begin until at least 1000 units have actually been constructed at which time the DRP will begin. Each subsequent phase will accommodate approval of 1000 dwelling units with the DRP being initiated at 500 constructed units to the maximum of 8500 units.

2. The monitoring protocol that will be undertaken during the DRP should include:

   - Lake water quality evaluation as recommended by Alberta Environment.
   - Survey of residents/visitors to determine their experiences.
   - Survey of boat owners to determine their experiences.
   - Review of emergency service availability.
   - Any other studies or assessments that Lacombe County Council deems necessary.
   - Public meeting to hear resident / visitor input.
   - Consultation with relevant government agencies.

   The actual scope of the monitoring program should be discussed with the Sylvan Lake Management Plan Committee.

3. The NRSA may be ended once Council is satisfied with the outcomes of the DRP.

2.4 Sequence of Development

One purpose of this ASP is to establish a logical pattern and sequence of development around the Lake. This would avoid ad hoc development that is typically based on a particular land owner"s preferred development timing, which may not contribute to an overall cost and environmentally efficient growth pattern. Consolidating development in specific areas is proposed for several reasons:

- To avoid ad hoc development and promote orderly, staged growth.
- To ensure that development coincides with the staging and construction of a regional wastewater sewer system that will collect sanitary sewage for transport to an appropriate treatment facility.
- To minimize the cost of road upgrades and maintenance for the County and developers.
- To minimize environmental impacts by locating new developments close to each other allowing environmental impacts to be managed effectively.
- To minimize the costs of other municipal services (e.g. emergency services, etc).

All new developments will be required to connect to a new regional wastewater trunk at the time of initial development construction. This will require the County/Utilities Commission to:

- Determine the alignments of feeder mains to the regional trunk and the wastewater,
- Ensure that the rights-of-way are available for feeder main construction,
- Identify possible connection points for feeder mains
- Divide the drainage area into subareas that will drain to a specific feeder main (some optional connections may be possible)
- Develop principles for construction and financing of feeder mains including „endeavour to assist" policies

The wastewater trunks will likely be a combination of gravity feed and force mains. New developments will be required to financially support the costs of the new sanitary line through off-site levies.

The first phases of development will be restricted to the lands identified as Development Area 1 (DA 1) running north from the Jarvis Bay Provincial Park area in Figure 3. Development in this area will tie into the 2010 sewer trunk that

will move sewage from a septage receiving station to the Town of Sylvan Lake wastewater treatment plant. New development will be required to connect to the new regional sewer trunk.

Once the regional trunk is constructed along the north side of the Lake (expected within 10 years), development can proceed throughout this area as long as it connects to this new line (Development Area 2). This sanitary line is the priority for the regional municipalities and will be eligible for more provincial support than a line on the west side of the Lake. The longer term sanitary system objective is for a regional sewer system that will encircle the Lake. The third phase of development (DA 3) would be based on the construction of a sewer line running west and northwest along the southwest side of the Lake from the Summer Village of Norglenwold. Finally, the lines would be joined at the northwest end of the Lake. This very extensive system depends on a number of financing, provincial policy and market demand factors and could be modified in the future.

There may be instances where a landowner/developer outside of Development Area 1 (i.e. within DA 2, 3 or 4) wishes to develop in advance of the development timing for their respective DA (construction of wastewater trunk). In such instances, a developer (or a group of developers joining together) in DA 2, 3 or 4 may develop their land as long as they do the following:

1. pay for the costs, and
2. receive approval from the Sylvan Lake Regional Wastewater Commission

to construct an oversize (if required) wastewater trunk and connect it to a regional trunk that is outside of the landowner"s/developer"s Development Area.

The one exception where a development could go ahead in advance of the regional wastewater trunk is where a development has received first reading to a rezoning bylaw (land use redesignation) prior to the adoption of this ASP (except for multi-lot development in Development Area 1). In this instance, the developer must construct a communal wastewater system that:

1. meets the requirements of Alberta Environment;
2. is determined to not cause harm to the watershed; and,
3. is designed in such a manner so that it can easily connect to a regional system in the future.

Such developments will be required to tie into the regional trunk once the trunk is constructed.

Policies

1. All new development within the Lake Development Area will connect upon construction with a regional wastewater trunk.

2. Any multi-lot development that has received first reading of a rezoning bylaw prior to the adoption of this ASP will be exempt from connecting to the regional wastewater trunk, except for multi-lot development in Development Area 1.

3. Development shall be restricted to the northeast side of the Lake in Development Area 1 for the foreseeable future starting in the southeast accessing the proposed 2010 wastewater trunk. Subsequent development can occur in Development Area 2 once the wastewater trunk is constructed along the north/east side of the Lake. Development can only occur in areas 2, 3 and 4 once those areas are serviced by a wastewater trunk connecting with a regional system. The only exception to this would be where a landowner/developer in areas 2, 3 or 4:

    a. pays for the costs, and
    b. receives approval from the Sylvan Lake Regional Wastewater Commission

    to construct an oversize (if required) wastewater trunk and connect it to a regional wastewater trunk that is outside of the landowner"s/developer"s Development Area.

4. Development of public access sites or public use sites initiated by the County may occur prior to trunk construction.

5. Development in the Agricultural Area may proceed as is currently, under those uses listed in the Agricultural District of the County"s Land Use Bylaw.

B SIZE 11" x 17" (279.4mm x 431.8mm)

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AECOM

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Rge Rd 2-5
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Rge Rd 2-3
Rge Rd 2-2
Rge Rd 2-1
Rge Rd 2-0
Rge Rd 1-5
Rge Rd 1-4

DEVELOPMENT AREA 1
DEVELOPMENT AREA 2
DEVELOPMENT AREA 3
DEVELOPMENT AREA 4

Sylvan Lake
Palm Bay
Sylvan Lake Natural Area
S.V.of Sunbreaker Cove
Blissful Beach
Eagle's Quay
Yuill
Westside Country Estates
Kuusamo Krest
Silver Springs
S.V.of Birchcliff
S.V.of Half Moon Bay
Jarvis Bay Provincial Park
S.V.of Jarvis Bay
S.V.of Norglenwold
Town of Sylvan Lake

SEPTAGE RECEIVING STATION

LEGEND

Sanitary Sewer Phase 1 Alignment

N

0 500 1000 m

SCALE 1:50000

Lacombe County
Sylvan Lake Area Structure Plan

Development Areas
Figure 3

2.5 Land Use Plan & Strategy

2.5.1 Key Principles of Land Use & Development

(a) Conservation Cluster Development

The plan promotes conservation cluster development as a preferred land use pattern rather than traditional country residential subdivisions. Conservation cluster development principles require that generally new development is concentrated onto one portion of the "development area" of a parcel, while the remainder is retained in its current state. Conservation cluster development may occur in several forms.[2] The Sylvan Lake Area Structure Plan endorses conservation cluster development on a parcel by parcel basis. This type of land use pattern shall be incorporated into the development of any parcel in the Lake Development Area (LDA). Within the parcel, development occurs in a cluster pattern. Where site conditions permit, the clusters of adjacent parcels should group together to form one larger cluster.

In general, there are two options for conservation cluster development on a parcel for both single-family detached housing developments and residential developments with a mix of housing types:

- Option 1: The open, remnant area of a parcel could be provided in a continuous block (not necessarily one legal title) and could be retained in agricultural use, or left in its natural state where appropriate.

- Option 2: The open remnant area could be integrated into the residential development possibly in a linear form.

Conservation cluster development would emphasize attributes offered by the natural and cultural-historical setting by retaining a portion of the parcel in an undeveloped form resulting in an overall more attractive and sustainable Lake area environment. New development would be allowed only in the "development area" of the parcel. The natural landscape components that could be protected would include vegetation, drainage features, viewsheds, highly productive soil, and steep slopes. The conservation cluster development concept would contribute to achieving the basic objectives of this Area Structure Plan by protecting water quality and

[2] *Linear Cluster Development, Cluster Development Around Existing Nodes, and Individual Site Cluster Development.*

maximizing public access to the Lake. From a developer"s perspective, the use of residential clusters provides the opportunity to maximize the development potential of each site, deliver services more cost effectively, and moderate potential impacts between land uses.

See Illustration 1 below for an example of conservation cluster development.

Illustration 1: Conservation Cluster Development

Note: This image is conceptual and is for illustrative purposes only.

The example of conservation cluster development above illustrates a combination of cluster development in continuous block form (west side) and in linear form (east side). Note: the design in the illustration assumes an extended ER setback along a permanent stream running north-south through the middle of the site.

Remnant Lands Created by Conservation Cluster Development

It is intended that the remnant lands parcel created by the conservation cluster development be retained in its current, open space state. “Open space” (remnant lands) in this Plan refers to lands that are in agricultural production or are in a natural or undeveloped state and preserved in that state by way of an easement or other legal instrument. The only forms of recreational use that are permitted in the open space / remnant lands include

passive recreational uses such as pedestrian pathways/trails and benches/rest nodes/viewing areas. Reserve lands or recreational uses such as landscaped parks, sports fields, or commercial golf courses are not included in the definition of open space.

Further subdivision of the remnant lands (open space) for the purpose of development that are not agricultural in nature shall be prohibited by legal instruments beyond land use designations. Other options for development may be considered, which may include continuance of existing farmsteads, etc and forms of passive recreational uses that would ensure public access.

As part of development, open space (remnant lands):

- May be acquired through dedication, purchase acquisition, caveat registration or donation if the land is in the ownership of a municipality;
- May be protected through a conservation easement, a condominium title, restrictive covenant, etc;
- May serve passive recreation uses (e.g. pedestrian trails, benches, viewing areas, but not landscaped parks);
- May protect natural features, such as trees and wetlands, permanent or seasonal water bodies and drainage courses and other environmentally sensitive features;
- May maintain some form of agricultural production;
- May be used to preserve and enhance Lake access and views.

If any of the remnant lands are retained in agricultural production, allowance shall be made for buildings and other improvements associated with the agricultural use, including permitted uses allowed under the Agricultural District of the Land Use Bylaw. Maintaining the lands under an agricultural zoning in Lacombe County would provide reasonable controls against incompatible or inappropriate development occurring on the lands. The zoning of the remnant parcel should reflect the use of the lands and prohibit further subdivision. However, other

legal instruments shall also be utilized to prevent further subdivision of the remnant lands (open space). This may be done by one or more of the following options:

i. Ownership by a condominium or residents association of the owners of dwelling units within the development with restrictive covenants on the open space.
ii. Ownership by a condominium or residents association of the owners of dwelling units within the development with a conservation easement granted to the County or a recognized conservation organization.
iii. The transfer of the open space, with permanent restrictions, to a land trust or other recognized conservation organization acceptable to the County.

The level of public access through the remnant lands would be a matter for consideration by the owners and the Approving Authority. If the remnant parcel has broader community or general public value, the lands should be secured in public ownership or a public access easement should be registered. The open space within a public access easement would be “privately owned open space” that is accessible to the public. Public access easements are most commonly associated with higher density multi-unit developments (apartment-style condominiums) where the additional open space that is created is accessible to the public. Examples of public access easements include gardens, pedestrian pathways/trails, etc for passive recreation purposes.

There are many parcels in the LDA where agricultural cropland and large blocks of forest and vegetation cover exist on the same parcel. In these instances, development should occur on the cleared, agricultural cropland portion of the parcel and the forested area shall be preserved to the greatest extent possible.

Policies

1. All development in the LDA will incorporate conservation cluster development principles. These requirements may be relaxed on small sites (4 hectares, or 10 acres) and those with topographic or access constraints imposed by the LDA boundary.
2. Approximately 40% of the area of a parcel to be developed/subdivided must be retained in its current and/or natural state.
3. The only uses that will be allowed within the lands identified in Policy 2 above include:

    i. Permitted uses listed under the Agricultural District of the County"s Land Use Bylaw;
    ii. Only discretionary uses listed under the Agricultural District that existed and were approved prior to the date of adoption of this ASP. Exceptions to this include a greenhouse and plant nursery, a riding and boarding stable and a bed and breakfast; and,
    iii. Passive recreational uses such as pedestrian pathways/trails and benches/rest nodes/viewing areas.

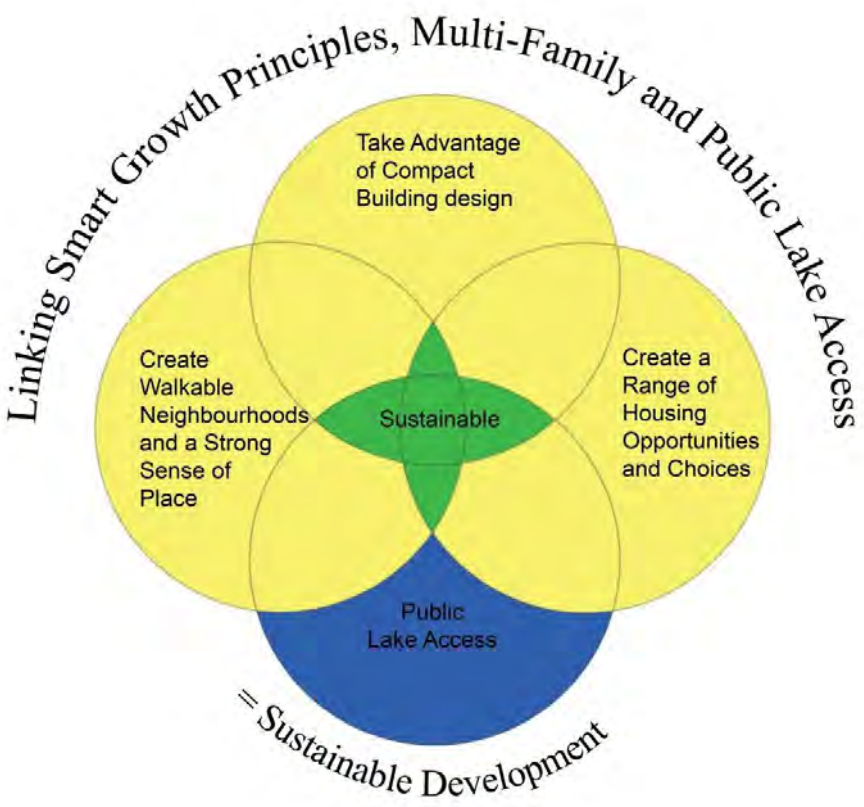
(b) Multi-Unit (Multi-Family) Housing

Sylvan Lake has the potential for high density residential development which enables the protection of more of the natural environment. The increased density is permitted in exchange for increased publicly accessible land above and beyon what is permiitted under the Municipal Government Act (MGA). The County's Municipal Development Plan and Land Use Bylaw outline policies and regulations which specify the requirements for high density deevelopment design. These requirements include servicing, amenity provision, location of municipal and environmntal reserve along the lakeshore, etc.

This Area Structure Plan promotes the full range of housing forms, including single detached dwellings, duplexes and multi-family housing (i.e. four-plexes, town/row housing and apartments) if properly designed and sited. Combined with the conservation cluster development concept, this could create small nodes of medium density development set in large natural areas – a highly marketable and sustainable development form.

(c) Sustainable Growth: Linking Smart Growth Principles, Multi-Family & Public Lake Access

Sustainable growth and development around the Lake is a high priority of this ASP. In order to achieve sustainable development, this ASP recognizes that a certain link needs to be made between multi-family, public lake access and four basic, but widely accepted Smart Growth Principles. The diagram below illustrates this connection.



The benefits of this link are further described as follows:

1. **Create walkable neighbourhoods** - this will be achieved if higher density is located within a 600 metre radius (five minute walk) of the identified public lake access sites. In other words, the more people that are closer to the Lake and can walk to the Lake/public access sites, the less people will be getting into their car to drive.
2. **Create a strong sense of place** – this will be achieved with the public access site / park acting as a community focal point adjacent to the Lake.
3. **Create a range of housing opportunities and choices** – townhousing and apartments, in addition to single family, enables people of all income levels and lifestyles to enjoy the Lake.
4. **Take advantage of compact building design** – smaller single family lots and higher density building forms adjacent to the public lake access sites enable a greater proportion of people (both as part of a community and as a whole) to enjoy the Lake.

2.5.2 Residential

(a) Single-Family Detached and Semi-Detached Residential

It is expected that the highest demand for housing in the Plan Area will continue to be for detached dwellings. The Plan also allows for the incorporation of semi-detached dwellings.

The average lot size in a subdivision shall be no greater than 0.40 acres (0.16 hectares) at a maximum density of one lot per acre. Development may occur on 60% of the parcel and the other 40% must be retained in its current or natural open space state. For example, on a full quarter section a developer could achieve a maximum of 160 detached and/or semi-detached dwelling units. These units would be developed on 96 acres, including 16 acres or 10% Municipal Reserve (MR), while the other 64 acres (40%) would be natural open space (remnant lands). On the development area of 96 acres, 16 acres would be subtracted for MR (10% of 160), leaving 80 acres. Of the 80 acres, an average of 20% (16 acres) would be consumed for roads and utilities. This leaves 64 acres net for residential lots, which would yield 160 lots at an average lot size of 0.40 acres (0.16 hectares). In summary, 40% of the parcel would be open space (remnant lands left in their current/natural state) and 10% MR.

The same situation would apply for all other parcel sizes. A parcel of 80 acres would yield 80 single family lots, approximately 32 acres of open space and 8 acres of MR. A parcel of 60 acres would yield 60 single family lots, approximately 24 acres open space and 6 acres of MR.

The scenarios above are based on the assumption that there is no Environmental Reserve (ER) dedication on these parcels. However, on parcels where there is ER dedication (due to steep slopes, setbacks from water bodies, etc), the maximum lot/unit yield is based on the net developable area after ER dedication. For example, if a full quarter section of 160 acres has 10 acres of ER dedication, then a developer could achieve a maximum of 150 units. These units (including the MR) would be developed on 90 acres, while the other 60 acres would be left in its current/natural open space state. In other words, the same principles as above apply, but based on the net developable area.

In order to illustrate how the above scenarios work, an example is provided below. In the example, the subject parcel has a total gross area of 152 acres (61.51 hectares). The majority of the parcel is covered by forest and there is a stream and gully that run through the middle of the site. The development statistics are shown below.

Illustration 2.1: Parcel Before Development

Illustration 2.2: Conservation Cluster Development Showing Remaining Forested Area and Land Uses

Note: This image is conceptual and is for illustrative purposes only.

Illustration 2.3: Conservation Cluster Development Showing Land Uses Only

Note: This image is conceptual and is for illustrative purposes only.

Development Statistics (Based on Example)

Total Gross Area:	152.0 ac (61.51 ha)
Environmental Reserve:	15.3 ac (6.19 ha)
Net Developable Area:	136.7 ac (55.32 ha)
Municipal Reserve (10%):	13.7 ac (5.53 ha)
Remnant Open Space:	54.7 ac (22.14 ha)
Road & Utilities (20%):	13.7 ac (5.53 ha)
Net Area for Lots:	54.7 ac (22.14 ha)
Total Lots:	136
Lot Sizes:	0.35 ac (0.14 ha) to 0.40 ac (0.16 ha)
Lot Widths:	17.5 m (57.4 ft) to 22 m (72.2 ft)
Lot Depth:	~80 m (262.5 ft)

Developments and single family lots of these densities and sizes mentioned above are not uncommon to the area surrounding Sylvan Lake. The average single family lot size in the Summer Village of Sunbreaker Cove is in the approximate range of 0.20 acres to 0.25 acres and some lot sizes in the SV of Half Moon Bay are as low as approximately 0.17 acres (700 m^2).

Lot width and orientation shall respond to the desire for as many homes as possible to enjoy Lake vistas, while public access to the lakefront in properties bordering the Lake must be provided. Given the nature of the policies proposed for conservation cluster development in this ASP, various amendments to the Lacombe County Land Use Bylaw will be required. Some of these amendments are outlined below under policies.

This ASP recognizes that some developers and future home owners may desire single family lots that are more conventional in nature, such as country residential estate lots. Thus, in order to allow for the flexibility of lot sizes, the maximum size for single family lots of a development may be a maximum of 1.5 acres (0.61 hectares). However, requirements for a minimum of 40% remnant open space and that the overall average lot size shall be no greater than 0.40 acres still apply. The minimum lot size permitted for single family detached dwellings would be 0.25 acres (0.10 hectares). Semi-detached dwellings would have a minimum lot size of 0.125 acres (0.05 ha) per unit.

(b) Multi-Unit Residential

Higher Density Nodes

Figure 4 Land Use Concept illustrates where multi-unit housing will be considered within a 600 metre radius (five minute walk) of the possible (and existing) public access sites. These areas will be referred to as Higher Density Nodes. A minimum of 15% of the units of developments over 25 units proposed within these areas may be developed in a multi-unit (higher density) form of townhouses and/or apartments, provided the full bonusing is met. The remainder of the development will be able to develop as single detached lots in entirety or a mix of multi-unit and single detached lots.

Where multi-unit development is part of a development, the development may exceed the maximum density of one unit per acre, based on the following conditions[3]:

1. Lakeshore subdivisions within Higher Density Nodes:
    a. A bonus system shall be used to provide additional publicly accessible open space or Municipal Reserve (MR) with lakefront access in excess of the 10% MR dedication (provided for in the Act)

[3] *The multi-unit portions of the development required under the 15% provision will not require additional open space or MR dedication beyond the 40% and 10%, respectively that is already required.*

and in excess of the requirement for a minimum 20% of lakeshore frontage provided as MR in the MDP (section 4.7.(d) in the MDP). This bonusing shall be calculated as follows:

i. for every 5% or 20 metres (whichever results in less unit yield) of additional lakeshore frontage that is provided as MR[4], 20 additional dwelling units may be allowed to a maximum of 320 additional units (gained from additional lakeshore frontage provided as MR); and,

ii. in addition to subsection 1.a.i., for every 1 ha (2.47 ac) that is provided as additional open space or MR, 20 additional dwelling units may be allowed, given that a minimum of 50% of the lakeshore frontage is dedicated as MR under subsection 1.a.i.

2. Backlot subdivisions within Higher Density Nodes:

    a. A bonus system shall be used to provide additional publicly accessible open space in excess of the 10% MR dedication provided for in the Act. This bonusing shall be calculated as follows:

        i. For every 1 ha (2.47 ac) that is provided as additional open space or MR, 20 additional dwelling units may be allowed.

If a developer or municipality builds a public access site not identified in this ASP, but meets the intent of the ASP, then Council can consider allowing multi-family adjacent to the public access site at densities greater than one unit per acre. The conditions outlined in subsections 1. and 2. above will still apply. Furthermore, such additional public access sites must provide a minimum of 30% of the lakeshore frontage for public use and must be abutting the lakeshore.

[4] *The additional MR along the lakeshore must connect with the majority of the original 10% MR area as one cohesive block.*

Areas Outside of Higher Density Nodes

In order to accommodate the possible desire/demand for a range of residential housing types (including multi-unit residential) outside of the Higher Density Nodes (within the Lake Development Area), multi-unit development beyond the Nodes is allowable based on the following condition:

1. The maximum allowable development density of one (1) unit per acre is retained.

In other words, a parcel of 160 acres outside of the Higher Density Node would yield no more than 160 multi-family units. The requirements for conservation cluster development will still apply.

Subject to the Land Use Bylaw of the County, the following maximum lot sizes and densities apply to multi-unit residential development for areas within and outside of Higher Density Nodes (where the Land Use Bylaw does not have a standard, the standard contained in this Plan shall apply):

1. Townhousing (defined as multi-attached dwellings each having direct ground level access):
   - Minimum lot area: approximately 0.049 acre (200 m²) per dwelling unit
   - Maximum lot size (density): 10.0 acres (4.0 ha). This would result in a maximum of 204 dwelling units or 20 units per acre.
   - Maximum building height: three (3) storeys (excluding walkout basements)

2. Apartments (based on the conditions above):
   - Maximum parcel coverage for an apartment building: 40%
   - Maximum parcel density: The maximum density for a multi-family parcel containing apartment(s) is 33 units per acre.
   - Maximum building height: four (4) storeys. A maximum building height of four storeys enables the possibility for a mixed use building containing commercial on the bottom floor and residential on the upper three floors.

Residential Policies

The following policy applies to all residential development:

1. All future development must be redesignated (rezoned) as either R-RCC Residential Conservation (Cluster) District or R-HDR Higher Density Residential District. Land use redesignation of any lands within the Plan Area to other designations (R-RLA Residential Lake Area District, R-CR Country Residential District and R-CRE Country Residential Estate District) will not be supported by this ASP. However, existing R-RLA designations may remain.

The following policies apply to single family detached lots:

2. The overall average lot size of a subdivision shall be no greater than 0.40 acres (0.16 hectares).
3. The maximum lot size shall be 1.50 acres (0.61 hectares), however, Policy 2 above shall still apply.
4. The minimum lot size shall be 0.25 acres (0.10 hectares).

The following policy applies to semi-detached dwellings:

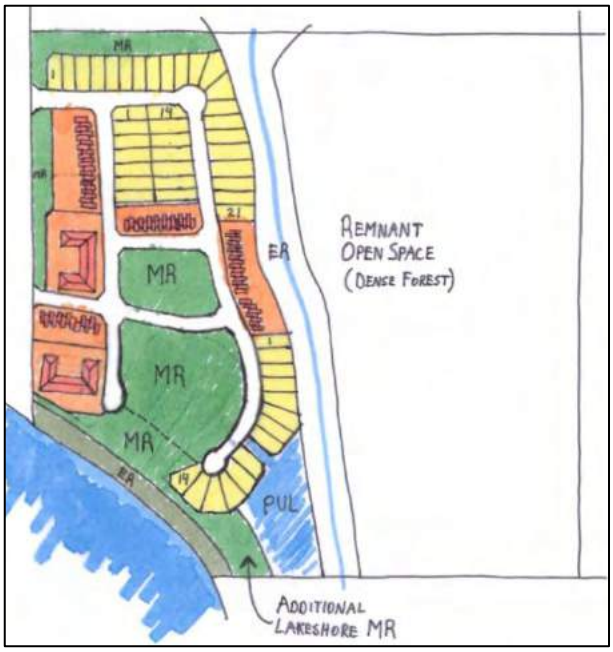
5. The maximum, minimum and average lot size of a semi-detached dwelling shall be half of the lot sizes required for single family lots listed above.

The following policy applies to multi-unit (higher density) residential development:

6. A development that is proposed within a 600 metre radius of a public access site, as identified on Figure 4, may provide a minimum of 15% of the units over 25 units as multi-unit dwellings in the form of townhouses and/or apartments.
7. The maximum density of a development within a Higher Density Node is two (2) units per acre, provided that the full bonusing outlined in this section is met.

Illustration 3.1: Parcel Before Development

Illustration 3.2: Lakeshore Parcel Within Higher Density Node, Developed at Maximum Development Density of 2 Units Per Acre



Note: This image is conceptual and is for illustrative purposes only.

Development Statistics (Based on Example)

Total Gross Area:	152.0 ac (61.51 ha)
Environmental Reserve:	15.3 ac (6.19 ha)
Net Developable Area:	136.7 ac (55.32 ha)
Municipal Reserve (10%):	13.7 ac (5.53 ha)
Additional MR (3%):	4.5 ac (1.82 ha)
Total Shoreline Length:	330 m
Total Shoreline Length Dedicated to Additional MR:	~230 m
Remnant Open Space (56%):	76.4 ac (30.92 ha)

Total Units:	273
Single Detached Lots:	49 (0.25 ac lot sizes)
Townhouse Units:	~56
Apartment Units:	~168

(c) Blended Residential

The maximum density and maximum and minimum lot sizes in a blended residential development will be calculated by applying the respective standards for the different housing types as described in Sections (a) and (b).

(d) Development Density

This ASP adopts a base density of one lot or unit per acre on a parcel by parcel basis. However, the density of an individual development within a multi-unit node area may be greater than one unit per acre when multi-family housing is introduced as part of a development. It is understood that one-half of the area of the development will still be provided as open space. In spite of this, the maximum development capacity of the ASP Lake Development Area as a whole shall remain 8500 units.

(e) Design Guidelines & Subdivision Standards

Policies

1. A development shall provide a minimum of 50% of the total parcel area that is to be developed as open space (including MR and remnant open space).

2. A concept plan will be required to demonstrate the recreational opportunities to help meet the active and passive needs of the residents (and larger community if appropriate) as well as the connections to Sylvan Lake and any regional connections. The concept plan shall also outline how the remnant open space created by conservation cluster development will function and how it will be incorporated into the development
.
3. Urban design guidelines will be required as part of a concept plan for all applications that are proposing higher density, multi-family development resulting in more than 40 multi-family units. The urban design guidelines shall address, but not be limited to, the following:

    a. Issues such as building size, scale, massing and orientation, density, site design, streetscape, architectural appearance, privacy, road capacity and traffic circulation, public safety, lighting and public amenities shall be addressed in a development proposal.

    b. Multi-family residential development shall be located and designed to integrate with other adjacent land uses where applicable.

    c. View corridors shall be maintained wherever possible. However, clearing of large areas of trees to create view corridors is not permitted.

    d. The siting of developments, especially higher density developments, shall be designed in such a way as to limit the negative impacts of views to and from the water. See Illustration 4 below.

    e. Street-oriented and/or pedestrian-oriented building design.

    f. A multi-unit residential project should be positioned in a subdivision so as to minimize the traffic impacts in the single detached dwellings area.

4. Any lakeshore development shall include on site walkways connecting with the proposed regional pathway system and other public spaces.

5. Wherever feasible, proposed developments shall make provisions to connect parks, open space and road connections with future possible development on adjacent parcels. The purpose is to minimize fragmented development and to demonstrate that the proposed development does not hinder the potential development of adjacent properties.

6. Wherever possible, all surface parking lots, regardless of the associated use, shall incorporate permeable pavement surfacing.

7. Large areas of surface parking associated with higher density, multi-unit developments, shall be located and designed away from the public view and from streets and pedestrian areas to the greatest extent possible.

8. A Visual Impact Assessment, undertaken by a qualified professional, will be required for all developments proposed within 800 m of the lakeshore, undertaken by a qualified professional. The purpose of the visual impact assessment is to protect views (both to and from the water) and natural characteristics of the shoreline. The visual impact assessment will provided sufficient information to show the likely effects of the proposed development and the extent to which any undesirable effects may be mitigated by the project design. As general requirements, the assessment shall address:

    a) How the natural features of the site will be preserved so as to contribute to the visual quality of the development.
    b) The visual impact of the proposed development from important viewpoints on and off the Lake.
    c) In areas where development is not visible from important viewpoints, higher densities might be considered more appropriate than in areas of high visibility.

Illustration 4: Minimizing Impacts on Views from the Lake

Acceptable form of lakeside development where the development is set back from the lake and partially hidden by trees.

Unacceptable form of lakeside development where the development dominates the shoreline views from the lake and detracts from the natural setting of the lake.

Note: These images are conceptual and for illustrative purposes only.

2.5.3 Commercial

Types of Commercial Sites

a) Neighbourhood Commercial Sites

The Sylvan Lake Area Structure Plan encourages developers to provide neighbourhood commercial sites. These commercial sites could accommodate a variety of businesses and services, including health care services (e.g. medical and dental offices, health clinics and chiropractic offices), financial services, a country inn, café or coffee shop, small retail stores (such as a “boutique” clothing store, video sales and postal outlet and liquor sales) and office space (e.g. realtor, development company and accountant). Neighbourhood commercial sites could also be combined with apartment units on the second and third storey (commercial at grade level).

Illustration 5: Example of Neighbourhood Commercial

Note: These images are conceptual and for illustrative purposes only.

b) Home-based Businesses

Home-based businesses are encouraged in the Plan Area, however, outside business activity, outdoor storage or client traffic will not be permitted in the Lake Development Area.

c) Auto-Oriented Commercial

Rainy Creek Road

The northwest corner of the Plan Area along Rainy Creek Road, near Palm Bay is an appropriate location for auto-oriented commercial uses (see Figure 4). This is based on a number of reasons:

1. Rainy Creek Road is a municipal main road, thereby serving a higher volume of traffic than municipal grid roads.

2. This portion of Rainy Creek Road is close to the Lake.

3. This area is at the opposite end of Lake from the Town of Sylvan Lake. As the surrounding area develops and the population increases, there will be a growing need for commercial uses to service the local residents on this end of the Lake.

Auto-oriented commercial uses, such as those in the C-GC – General Commercial District (Lacombe County Land Use Bylaw), are encouraged as part of any development whose parcel is identified as having the potential for general commercial, as shown on Figure 4. The intent is not to create a continuous commercial strip along Rainy Creek Road. Rather, the intent is to encourage auto-oriented commercial development in this area as opposed to other areas.

Highway 20

Highway commercial uses, such as those in the C-HC – Highway Commercial District, are encouraged at the south end of Highway 20 (as illustrated on Figure 4).

d) Other Forms of Commercial

Accommodation and convention services (including hotels), eating and drinking establishments, and indoor and outdoor recreation facilities (as defined in the County"s LUB) are included in the R-HDLR land use district of the LUB (this includes golf courses). These uses are permitted within the lake development area, but their proposed location shall be at the discretion of the approving authority.

2.5.4 Industrial

(a) Industrial development will not be permitted in any portion of the Plan Area. In other words, land use re-designation to either the Business Industrial District (I-BI) or the Heavy Industrial District (I-HI) under the County"s Land Use Bylaw will not be supported by this ASP. However, uses that are industrial in nature and are listed under the Agricultural District of the County"s Land Use Bylaw may be permitted at the discretion of the Approving Authority with the following exceptions:

1. For lands within the Lake Development Area, the use had to exist prior to the date of adoption of this ASP.

2.5.5 Institutional

Institutional camps have been part of the Lake environment for many decades. The Sylvan Lake Area Structure Plan allows for both the expansion of existing camps and the development of similar new institutional uses, subject to certain conditions. If an expansion of a camp results in greater than 25% additional beds, as part of accommodation facilities with a fixed roof, the camp shall be required to connect to a regional sewer line. Furthermore, all new institutional uses shall connect to a regional sewer line.

2.5.6 Recreational Vehicle Resorts

Although recreational vehicle parks/subdivisions are an acceptable use in the Lake Development Area, due to the lack of lake access facilities no new RV parks/subdivisions will be allowed in Development Area 1 or 2 until new formal boat launch facilities are constructed (beyond currently scheduled expansion in Sunbreaker Cove). As RV resorts/subdivisions generate high traffic and boat volumes they should be located within a mile of a formal boat launch and on paved roadway. RV sites require attention to the visual interface with surrounding roads and must ensure adequate pedestrian access to the lake. The developer will be expected to provide sufficient recreational park facilities to serve the residents.

2.5.7 Municipal Reserves

(a) Municipal Reserve Dedication in Lakeshore Subdivisions

Lacombe County will require 10% of the titled lands for municipal reserve dedication upon subdivision. The following standards shall apply to lakeshore subdivisions:

i. Full Municipal Reserve (MR) dedication (10%) shall be taken.

ii. Lakeshore subdivisions within Higher Density Nodes shall apply a density transfer/bonus system as outlined in section 2.5.2(b):

iii. Municipal reserve must be developable and usable land. The location and configuration of reserve parcels should ensure access is provided to the regional pathway and lake front park space.

iv. Municipal reserve where possible should be integrated (i.e. physically linked) with the shoreline environmental reserve to create a public access site suitable for day use. The length of the municipal reserve parcel must be not less than 20% of the total length of the shoreline frontage of the parcel of land proposed to be developed, with a minimum width of 30 m. This dedication shall be a single contiguous area and not fragmented into several parcels.

v. A municipal reserve strip not less than 5 metres wide will be dedicated adjoining the entire length of the shoreline environmental reserve. This reserve is designed to accommodate a trail along the top of the bank. However, it is also meant to stop private encroachments from lakefront lots onto environmental reserves.

vi. The developer will improve municipal reserve lands to the satisfaction of the respective municipality. The developer will undertake the "improvements" to these reserves in accordance with conceptual plan drawings that the respective municipalities have endorsed at the rezoning stage. "Improvements" may include trails, picnic sites, waste receptacles, washrooms, parking and tree planting.

(b) Municipal Reserve Dedication in Back Lot Subdivisions

Back lot subdivisions are those where no part of the property boundaries abut the lake or the lakefront ER strip. Lacombe County will require a full dedication of MR in these subdivisions. This is to ensure there are adequate recreational amenities within each subdivision for both resident and general public use. It is also meant to provide interconnected green space that allows for the development of an internal trail network with links to the regional trail system and other public recreational facilities

(c) Public Access Levy

In addition to the improvements to the municipal reserve as described in Section (a)(iv) above, every developer shall provide a "public access levy" as the amount determined by County Council from time to time. This levy is payable before final approval is given to the subdivision and is applied to lakeshore and backlot subdivisions. Situations where a public access levy may not be required would be in the case where in the opinion of the Approving Authority, a developer goes above and beyond what is normally required for the development of recreational facilities (e.g. improved public lake access, etc).

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REMOTE OPERATIONS SITE
Rainy Creek Road
Rge Rd 2-5
Rge Rd 2-4
Rge Rd 2-3
Rge Rd 2-2
Rge Rd 2-1
Rge Rd 2-0
Rge Rd 1-5
Rge Rd 1-4
Hwy 20
Twp Rd 39-4
Twp Rd 39-2
Palm Bay
SITE E
SITE F
Sylvan Lake Natural Area
S.V.of Sunbreaker Cove
Blissful Beach
Eagle's Quay
SITE L
Yuill
Westside Country Estates
SITE G
SITE H
SITE K
SITE I
SITE J
Silver Springs
SEPTAGE RECEIVING STATION
Aspelund Road
Kuusamo Krest
SITE D
SITE C
SITE B
SITE A
POSSIBLE BOAT LAUNCH
Sylvan Lake
S.V.of Birchcliff
S.V.of Half Moon Bay
Lacombe County
Red Deer County
Jarvis Bay Provincial Park
S.V.of Jarvis Bay
S.V.of Norglenwold
Town of Sylvan Lake
Hwy 11
Hwy 11A

LEGEND

- AGRICULTURE
- LOWER DENSITY RESIDENTIAL
- HIGHER DENSITY NODE[1]
- POTENTIAL GENERAL COMMERCIAL
- POTENTIAL HIGHWAY COMMERCIAL
- WATERSHED BOUNDARY
- WETLAND + 15 m SETBACK
- 10 to 15 m STREAM SETBACK
- 30 m LAKE SETBACK
- POSSIBLE PUBLIC ACCESS SITE
- PHASE 1 REGIONAL WASTEWATER TRUNK ALIGNMENT (CONCEPTUAL)
- REGIONAL WASTEWATER TRUNK ALIGNMENT (CONCEPTUAL)
- PROPOSED REGIONAL TRAIL
- POSSIBLE FUTURE ROAD UPGRADE TO MUNICIPAL MAIN ROAD (MAJOR COLLECTOR)

NOTES:
1 MINIMUM 15% OF UNITS OF A DEVELOPMENT IN THIS AREA MAY BE MULTI-FAMILY
* PARCELS SW14-39-2-5 & SE14-39-2-5 MAY BE DEVELOPED AS RESIDENTIAL

0 500 1000 m
SCALE 1:50000

AECOM

Lacombe County
Sylvan Lake Area Structure Plan

Land Use Concept
Figure 4

2.5.8 Public Access & Recreation

Sylvan Lake is a public resource that offers a diverse range of recreation opportunities for residents across central Alberta. But perhaps more than any other recreational lake in Alberta, Sylvan Lake faces growing demand for additional recreational development. This demand reveals itself through conflicts between users and residents, and overcrowding at existing public recreation areas. As a result, additional access to the lake must be provided in a fashion to minimize both resident/recreational user conflicts and damage to the lake environment. This section outlines a comprehensive strategy for dealing with the demand for improved public access to Sylvan Lake.

(a) Lakeshore Developments & Lake Access

Lakeshore subdivisions are defined as lands where the property line borders the lake. Any development proposals with the capability of providing public lake access will be expected to protect such access through the dedication of environmental and municipal reserve. This ASP has identified general locations where such public access on lakeshore properties should be considered.

(b) Rationale for Possible Public Access Locations

The Sylvan Lake Public Access Study Background Report (ISL, 2002) identifies both publicly and privately owned lands that are suitable for and/or candidates for public access opportunities. There are seven public lands candidate sites and six recommended privately owned parcels that fall within the Sylvan Lake ASP. The Sylvan Lake Public Access Study Findings & Recommendations Report (ISL, 2003) only recommends two out of the seven public lands candidate sites (road allowance of Range Road 2-3 in Palm Bay and Kuusamo Krest Reserve) be developed as day use areas and one is recommended to be permanently closed (Yuill road allowance of Twp Rd 39-4).

One of the reasons why the Public Access Study only recommended two out of the seven is because some of the sites, such as Yuill (Site G in this ASP), Range Road 2-0 (Site J) and Range Road 2-1 (Site H) road allowance sites, do not have direct physical access to the lakeshore and water due to steep slope constraints. In other words, the Public Access Study did not consider day use areas without physical lake/water access as “public access” to the lake. The Public Access Study was also looking for immediate solutions, not long term plans.

The Sylvan Lake ASP recognizes that public access does not necessarily have to be direct and physical access to the lake and water. Public access can therefore include a small day use area that is set back from the lake, but is still adjacent to or in immediate proximity to the lake. It would also not have typical “lake use” activities. In this ASP, Sites G, H, I and J are examples of this type of day use area.

Of the six privately owned parcels that the Public Access Study Background Report identifies as having lake access suitability, five of the parcels are located together on the southwest side of Sylvan Lake and one lone parcel is located at the north end in Palm Bay. The Sylvan Lake ASP identifies three possible public access sites at the southwest and at the north end, there are two possible public access sites identified on separate private lands. See Figure 4.

(c) Types of Day Use Areas

The Sylvan Lake ASP recognizes that there are essentially two types of day use areas:

1. Day use areas with “lake use”
2. Day use areas without lake use.

Both are located near or directly adjacent to the Lake. A day use area with lake use is defined as a day use area that physically touches the lake and water‟s edge through any or all of the following:

1. Boat launch
2. Beach and beach/shoreline swimming area
3. Pier or dock
4. Shoreline access.

(d) Types of Public Access Sites & Their Locations

The Sylvan Lake ASP incorporates the two above forms of day use areas into more site-specific types of public access sites. These types of public access sites are listed and discussed below and assigned to particular locations within the ASP.

(e) Major Public Access Sites (Major Park Area – Site A. Figure 4.1)

This site should be developed as a full public access site / day use area with both day use and lake use, and could include all forms of public lake access amenities. A description of the major public access site, Site A, can be found in Appendix A.

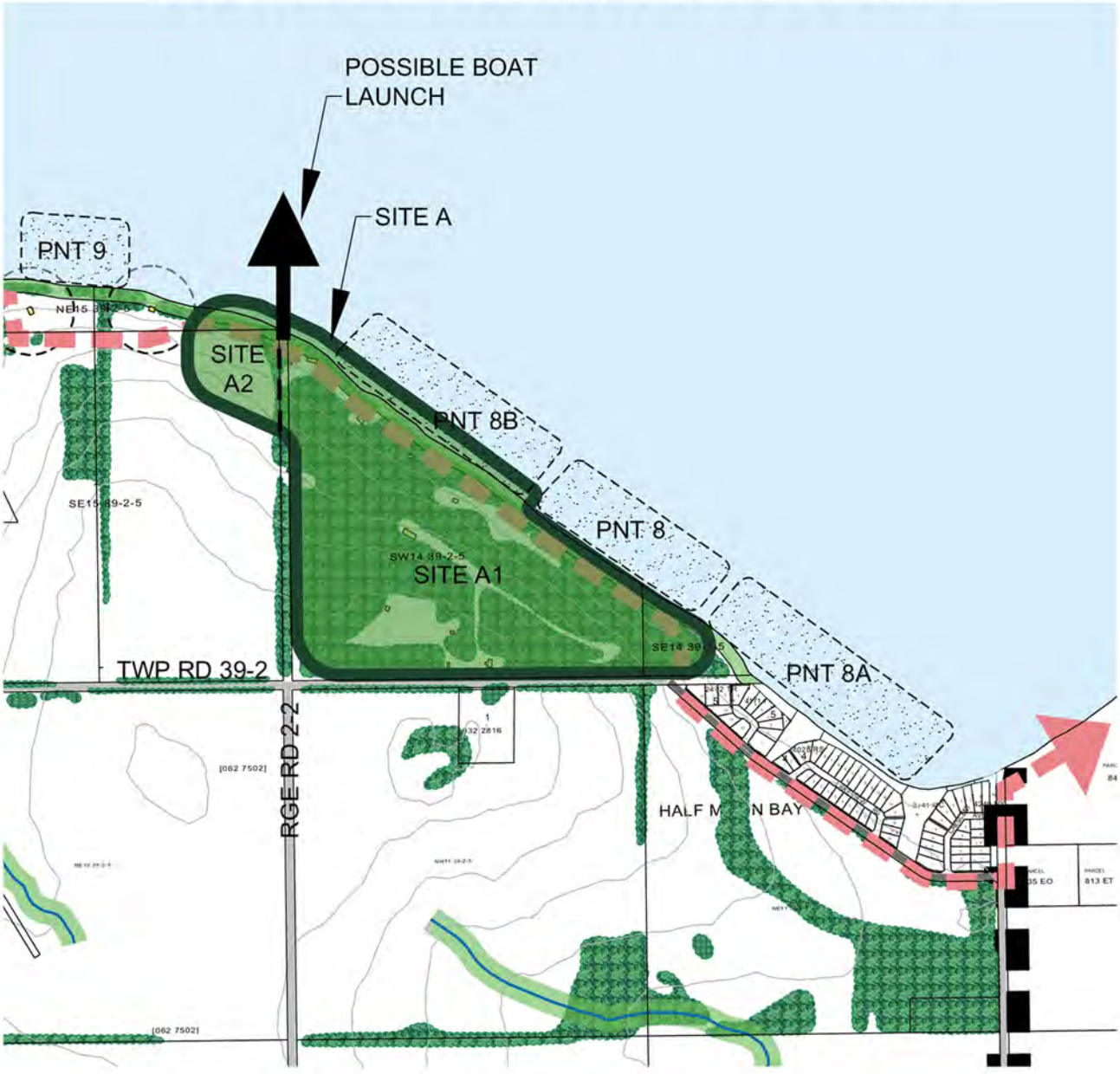
Guidelines:

- Forms of public lake access that will be included are: boat launching, full day use area (parks, playgrounds, picnic sites, washrooms, parking area).
- Other forms of public access that could be included are: beach and beach/shoreline swimming area (development of the shoreline), campground, permanent or non-permanent pier (i.e. pile dock), boardwalk, observation platform/tower, trails, benches.
- Site A, as shown in Figure 4.1, is considered a major public access site.

Illustration 6: Example of Public Access to the Lake in a Major Public Access Site

Note: These images are conceptual and for illustrative purposes only.

FIGURE 4.1: PUBLIC ACCESS SITE A



LEGEND

- EXISTING TREES
- STREAM
- KEY UNGULATE HABITAT
- KEY FISHERIES HABITAT
- KEY WATERFOWL HABITAT
- WETLAND VEG. + 15 m SETBACK
- 15 m STREAM SETBACK
- 30 m ER LAKE SETBACK
- POSSIBLE PUBLIC ACCESS SITE
- POSSIBLE RESIDENCE BUFFER
- PROTECTIVE NOTATION (PNT)
- PROPOSED REGIONAL TRAIL

N

0 150 300 450 m

SCALE 1:15000

(f) Minor Public Access Sites 1 (Non ESA)

This form of public lake access is not located on the shoreline of a water-based environmentally sensitive area (ESA), as identified in the Sylvan Lake Management Plan (2000). These water-based ESAs include key waterfowl habitats and key fisheries habitats. A Minor 1 site does not include all forms of public lake access amenities, but does include both day use and lake use. Descriptions of the minor 1 sites (Sites B and C) can be found in Appendix A.

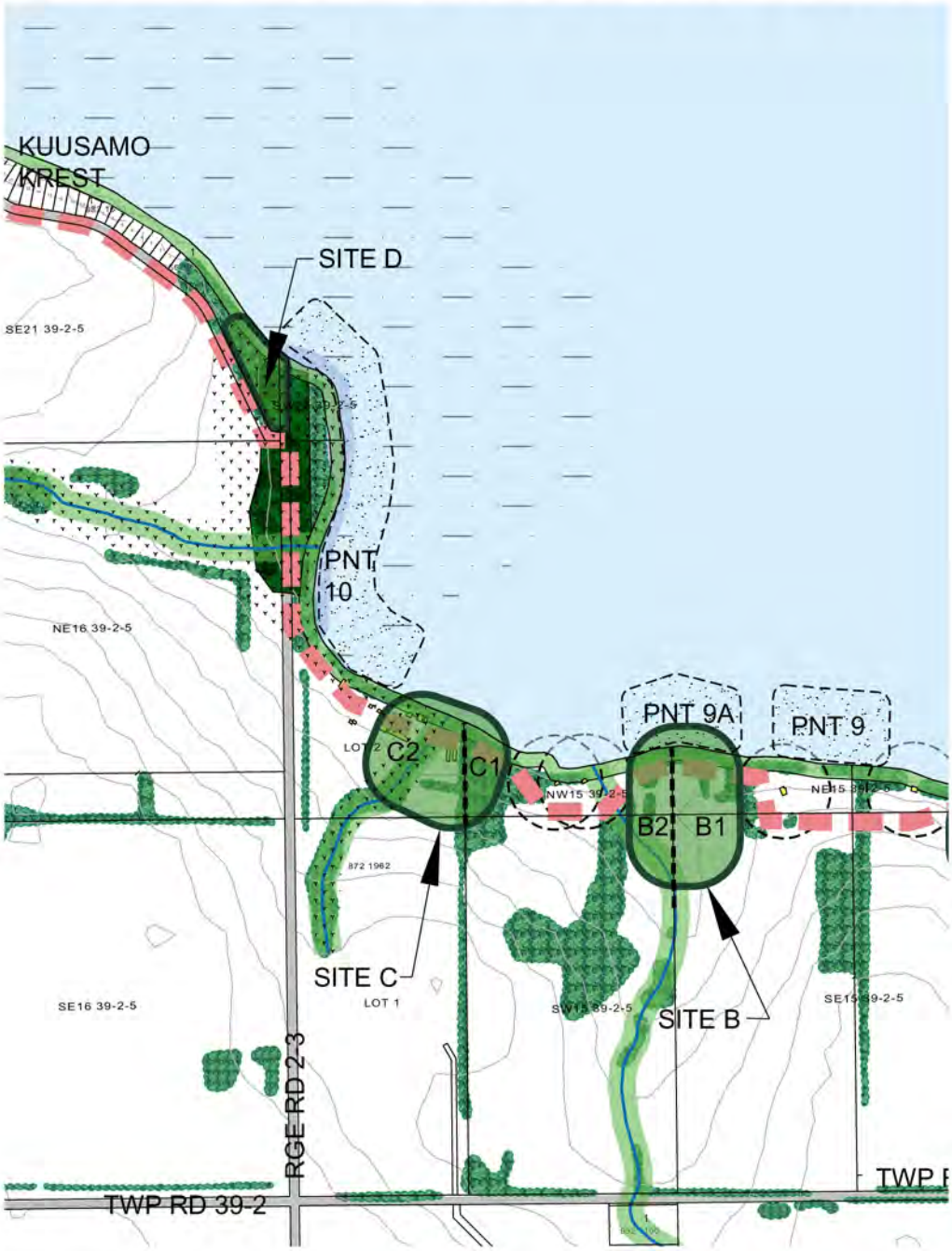
Guidelines:

- This form of public lake access will not include boat launching (motorized watercraft).
- This form of public lake access will include full day use area (parks, playgrounds, picnic sites, washrooms, parking area) and may allow new beach construction and shoreline alteration.
- This form of public lake access could include: non-motorized watercraft launching (canoes, kayaks, paddle boats, etc), beach and beach/shoreline swimming area (development of the shoreline), pier/dock (permanent or non-permanent), campground, boardwalk, observation platform/tower, trails, benches.
- Sites B and C, as shown in Figure 4.2, are considered minor public access sites 1.
- Not adjacent to PNT or ESA (Sylvan Lake Management Plan).

Illustration 7: Example of Public Access to the Lake in a Minor Public Access Site

Note: This image is conceptual and is for illustrative purposes only.

FIGURE 4.2: PUBLIC ACCESS SITES B, C & D



LEGEND

- EXISTING TREES
- STREAM
- KEY UNGULATE HABITAT
- KEY FISHERIES HABITAT
- KEY WATERFOWL HABITAT
- WETLAND VEG. + 15 m SETBACK
- 15 m STREAM SETBACK
- 30 m ER LAKE SETBACK
- POSSIBLE PUBLIC ACCESS SITE
- POSSIBLE RESIDENCE BUFFER
- PROTECTIVE NOTATION (PNT)
- PROPOSED REGIONAL TRAIL

N

0 150 300 450 m

SCALE 1:15000

(g) Minor Public Access Sites 2 (Within ESA)

This form of public lake access abuts the lake shoreline and is located near or within at least two of the three forms of environmentally sensitive areas (ESA). These sensitive areas include the following: key ungulate habitat, key fisheries habitat and key waterfowl habitat. Thus, there will be considerable limitations on the type of public access that can be developed. A minor 2 site includes day use with limited lake use. Descriptions of the minor 2 sites (Sites D, E and F) can be found in Appendix A.

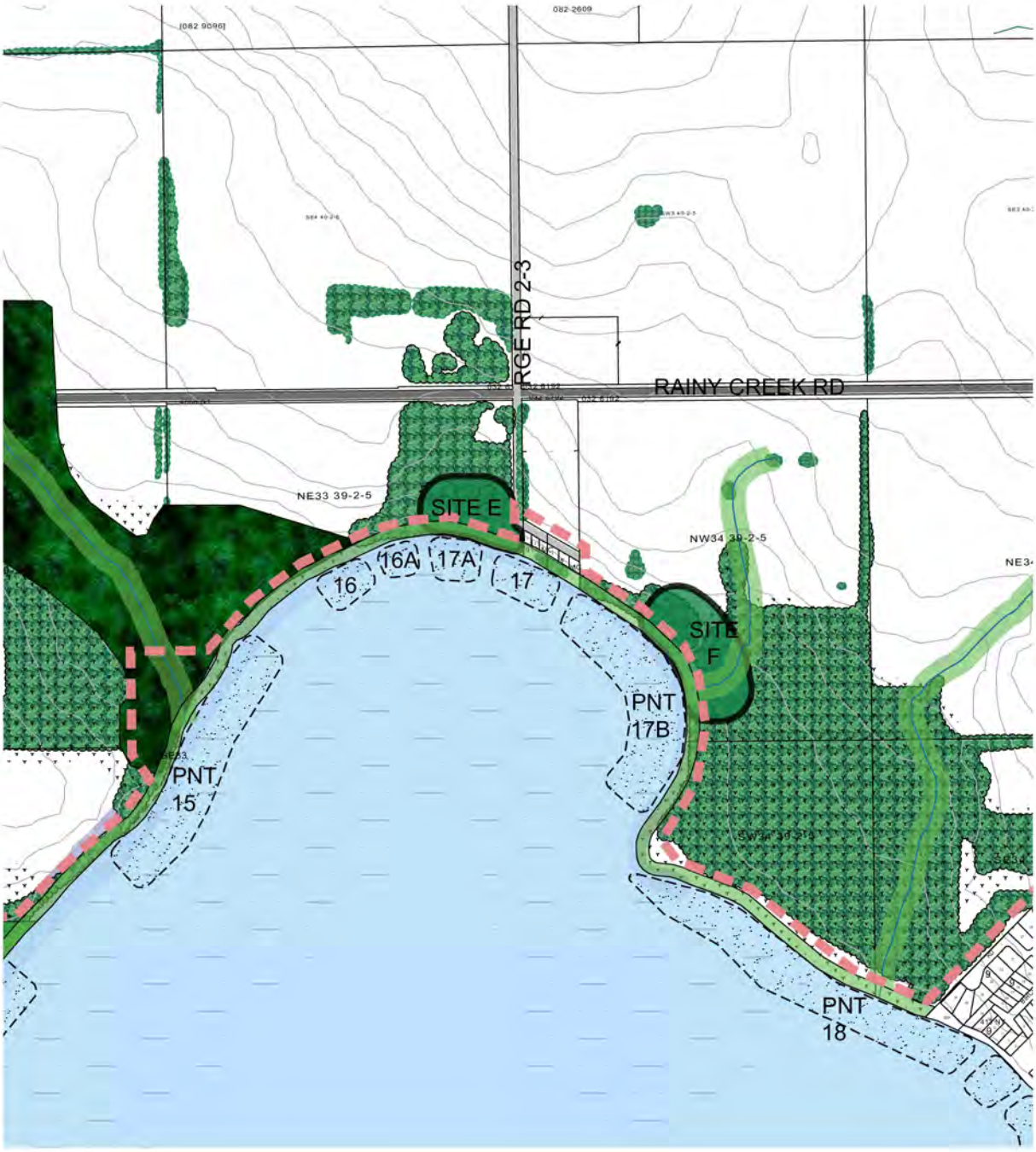
Guidelines:

- Public access to the lake shore / water"s edge and water shall be limited.
- Natural edge along lake shore shall be retained (shoreline will not be altered)
- This form of public lake access will not include: boat launching (motorized boats), beach and beach/shoreline swimming area, permanent pier or dock, unrestricted access to the shoreline.
- This form of public lake access may include: full day use area (parks, playgrounds, picnic sites, washrooms, parking area), restricted access to the shoreline (in the form of boardwalks, etc that have railings to prevent the public from accessing the natural shoreline).
- This form of public lake access could include: non-motorized watercraft launching (canoes, kayaks, paddle boats, etc), campground, boardwalk, floating dock or pipe dock (non-permanent), swimming area from a floating dock only, observation platform/tower, trails, benches
- Illustration 8 identifies the type of public access to the lake that could be appropriate along the shoreline in an environmentally sensitive area.
- Sites D, E and F, as shown in Figures 4.2 and 4.3, are considered minor public access sites 2 (within ESA).

Illustration 8: Example of Public Access to the Lake in an Environmentally Sensitive Area

Note: This image is conceptual and is for illustrative purposes only.

FIGURE 4.3: PUBLIC ACCESS SITES E & F



LEGEND

- EXISTING TREES
- STREAM
- KEY UNGULATE HABITAT
- KEY FISHERIES HABITAT
- KEY WATERFOWL HABITAT
- WETLAND VEG. + 15 m SETBACK
- 15 m STREAM SETBACK
- 30 m ER LAKE SETBACK
- POSSIBLE PUBLIC ACCESS SITE
- POSSIBLE RESIDENCE BUFFER
- PROTECTIVE NOTATION (PNT)
- PROPOSED REGIONAL TRAIL

N

0 150 300 450 m

SCALE 1:15000

(h) Tertiary Public Access Sites

This form of public lake access is a day use area without lake use. In other words, it is public access without direct physical access to the lake/water (due to steep slope constraints or other environmental constraints, etc), but is in immediate proximity to the lake. In some cases, tertiary public access sites will supplement lake use trail nodes by providing certain amenities/facilities that a lake use trail node cannot. Descriptions of the tertiary sites (Sites G, H, I and J) can be found in Appendix A.

Guidelines:

- This form of public access will not include: boat launching of any sort, beach or beach/shoreline swimming area, pier or dock, physical access to the shoreline/water.
- This form of public lake access will include: full day use area (parks, playgrounds, picnic sites, washrooms, parking area).
- This form of public lake access could include: walk-in, tent-only campground, boardwalk, observation platform/tower, trails, benches.
- Where possible will include a view of the lake.
- Sites G, H, I and J, as shown in Figure 4.4, are considered tertiary public access sites.

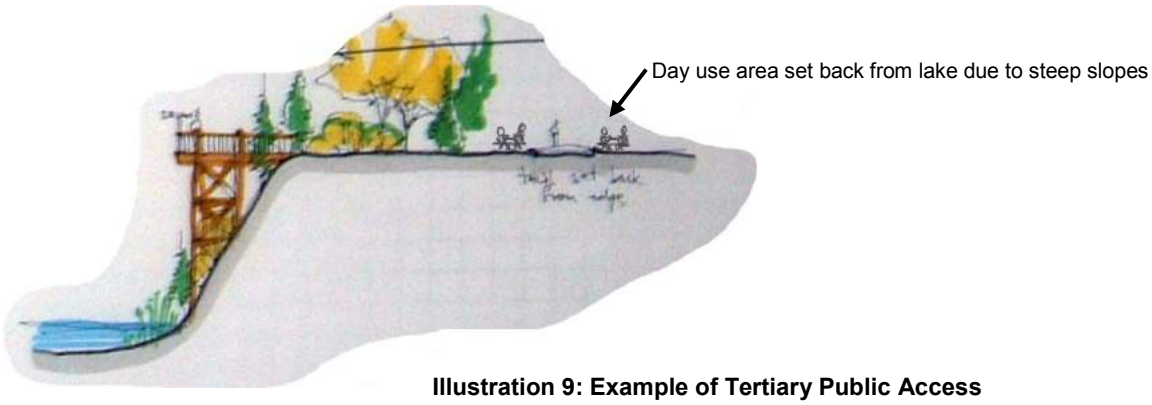


Illustration 9: Example of Tertiary Public Access

Note: This image is conceptual and is for illustrative purposes only.

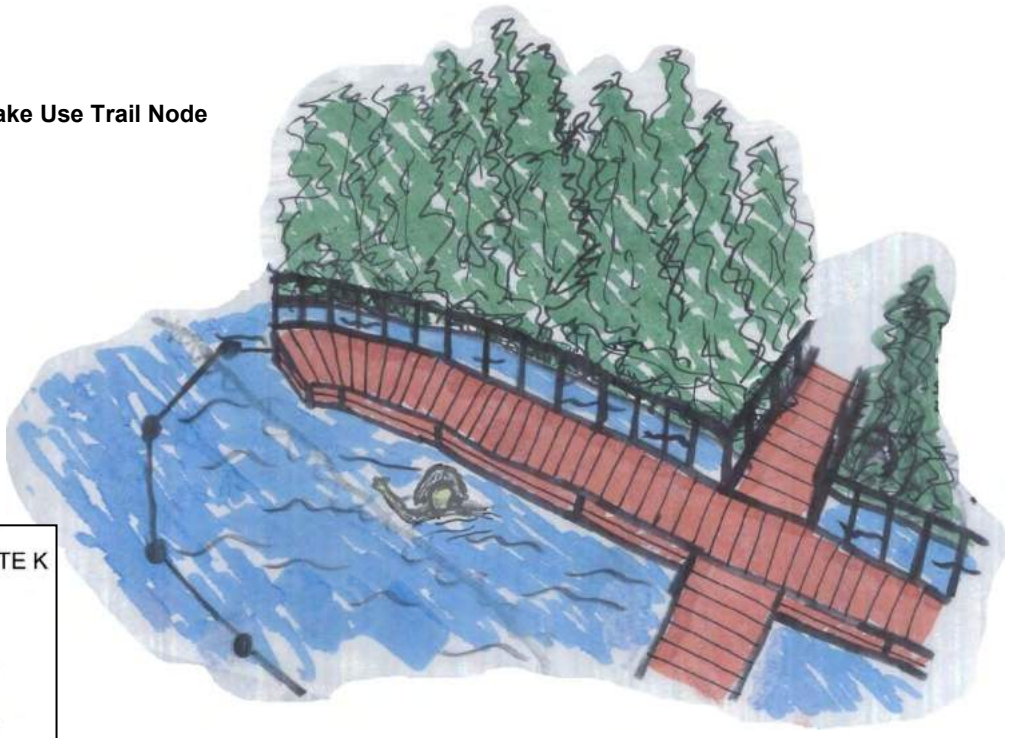
(i) Lake Use Trail Nodes (LUTN)

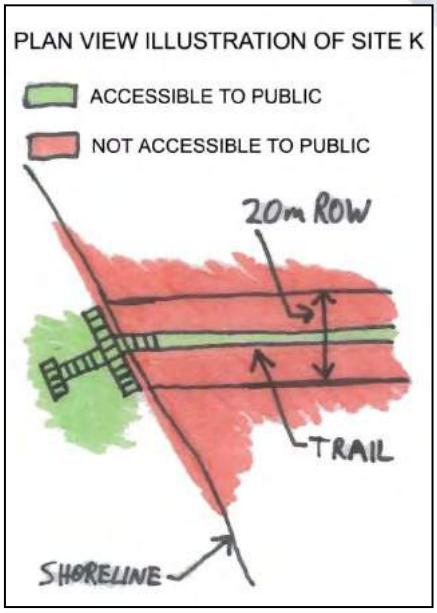
Trail lake use nodes are specific areas along the regional trail/pathway that provide controlled, physical access to the lake. This form of public lake access is intended for locations where, due to certain environmental and physical constraints (i.e. heavily treed shoreline), development of the shoreline (in the form of a beach area) and development of typical day use amenities adjacent to the lake are not feasible. Descriptions of the lake use trail nodes (Sites K and L) can be found in Appendix A.

Guidelines:

- This form of public access could include an observation platform/tower, pathway, benches, boardwalk leading to a floating dock, swimming area from the floating dock only.
- Typical day use area amenities (parking, picnic sites, washrooms, parking area, etc) are not included as part of a trail lake use node. However, wherever possible, trail lake use nodes will be located within a short walking distance (less than 600 m) of a tertiary day use area.
- Other forms of public access that are not included are: beach swimming area, boat launch, permanent pier/dock, etc.
- Sites K and L, as shown in Figure 4.4, are considered lake use trail nodes.
- Illustration 10 provides an example of a trail lake use node at Sites K and L.

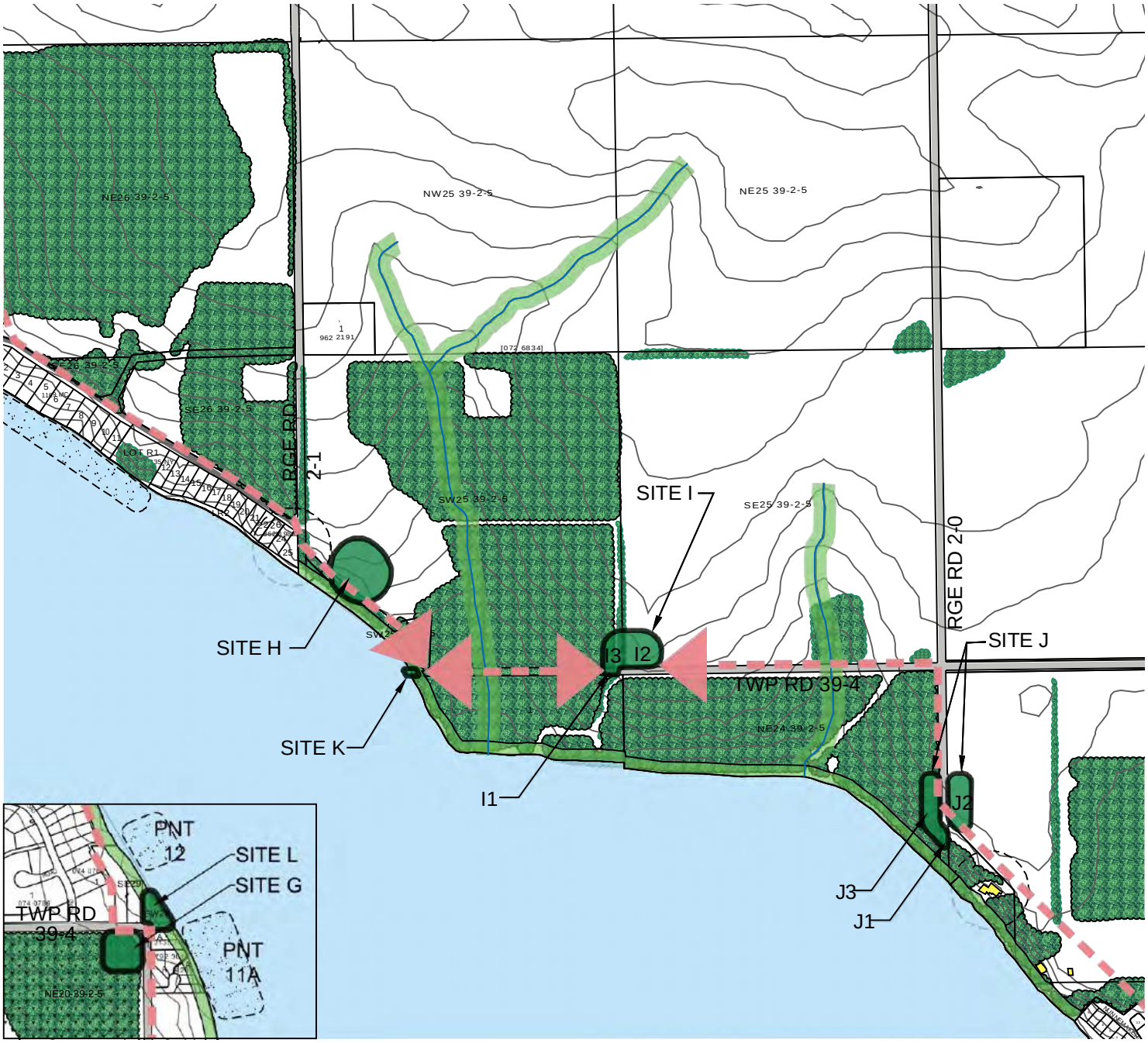
Illustration 10: Example of a Lake Use Trail Node





Note: These images are conceptual and for illustrative purposes only.

FIGURE 4.4: PUBLIC ACCESS SITES G, H, I, J, K & L



LEGEND

- EXISTING TREES
- STREAM
- KEY UNGULATE HABITAT
- KEY FISHERIES HABITAT
- KEY WATERFOWL HABITAT
- WETLAND VEG. + 15 m SETBACK
- 15 m STREAM SETBACK
- 30 m ER LAKE SETBACK
- POSSIBLE PUBLIC ACCESS SITE
- POSSIBLE RESIDENCE BUFFER
- PROTECTIVE NOTATION (PNT)
- PROPOSED REGIONAL TRAIL

N

0 150 300 450 m

SCALE 1:15000

(j) Trails

Residential and commercial developments shall provide designated trail corridors, within and through the subdivision. The trails will be located within reserves in new development and will be for use by the residents of the development as well as the general public. Trails will provide access to and along the lake, and link with trails, existing or proposed, on adjacent lands. In some instances, certain trail segments will need to be built in road rights-of-way to provide links, either through or around existing developments. The objective is to build a lake-wide trail / regional pathway system. The approximate and conceptual routing of the regional trail is shown in Figure 4. The exact and detailed routing of the trail will be determined at the subsequent planning stages.

The regional trail will create connections between adjacent developments and will be located as close to the lake as possible, normally along the top of the bank within the 5 metre wide municipal reserve strip. On-site pedestrian walkways shall be provided for each lakeside development and shall be designed to link to the "regional pathway".

Illustration 11: Regional Pathway

Note: This image is conceptual and is for illustrative purposes only.

All trails shall be designed in accordance with the County's municipal design standards for trail design and construction. Furthermore, the regional trail/pathway will be built to a paved standard to facilitate more diverse use. At their discretion, the Approving Authority may also require local trails to be paved, which could include situations where a local trail provides a strong connection to the regional pathway. In specific locations where a trail (including the regional pathway) goes through an environmentally sensitive area (e.g. wetland, marsh, bog, etc), the trail would be a boardwalk or finished to a wood chip or mulch surface.

(k) Trail Nodes (TN1)

Trail nodes or "rest stops" will be provided at certain intervals along the regional trail/pathway. Interval spacing should be in the range of 500 metres to 1000 metres. Trail nodes do not include physical access to the lake.

- This form of public access could include: a bench, picnic table, a waste receptacle and an observation platform/tower

(l) Communal Access and Docking Facilities as Part of Lakeshore Subdivisions

The use of joint access and docking facilities by lakeshore property owners, rather than individual piers/docks and access points (for each lot/unit), will provide lake access for residents with much less impact to littoral zones and fish and aquatic habitat than currently occurs with multiple access points. The following policies are recommended:

Policies

1. As a condition of development approval, future lakeshore subdivisions shall require communal access and docking facilities when providing access to the lake, rather than allowing each landowner to have their own direct path to the lake.
2. Lakeshore subdivisions shall include provision for communal access to the shoreline via MR/ER.
3. All concept plans/subdivision plans of a lakeshore subdivision shall identify planned locations for any form of lake access.
4. Private docks constructed for an individual property shall be prohibited.
5. Communal docks shall be constructed as either floating, pipe or pile docks.
6. Appropriate building materials such as untreated wood (cedar, fir, hemlock and tamarack) or plastic wood shall be used for communal docks. Treated wood is prohibited.
7. A maximum of one dock per 14 single family or semi-detached lots of a lakeshore subdivision shall be permitted.
8. A maximum of one dock per 30 multi-family units of a lakeshore subdivision shall be permitted.
9. The placement of communal docks and lakeshore access as part of lakeshore subdivisions shall avoid known spawning and rearing habitats for fish and nesting and brood-rearing habitats for water birds.
10. Developers, property owners or landowners of a lakeshore property or subdivision shall not carry out any work or undertaking that results in the harmful alteration, disruption or destruction (HADD) of fish habitat, unless this HADD has been authorized by the Fish Habitat Management division of Fisheries & Oceans Canada (DFO).
11. All proposed subdivision development plans of a lakeshore subdivision shall include an environmental overview/assessment of the shoreline and aquatic habitat adjacent to the shoreline which defines measures to protect such habitat.
12. Developers and private landowners of a lakeshore subdivision shall retain the natural edge along the lakeshore.

(m) General Principles & Policies for Public Access & Recreation

Principles

The following principles apply generally to all public access sites identified.

1. Lake access for the public is a high priority.
2. Publicly owned land (i.e. public road allowances and reserves) will not be disposed of.
3. Pedestrian-oriented park space for public access near and to the lake shore is a high priority, and should therefore be maximized.

4. The water quality and health of the lake / lake environment is a high priority, and new public access areas will be designed in such a way as to protect the lake ecosystem and minimize impact on residential areas.
5. Direct private access to the shoreline and waters of Sylvan Lake is not consistent with the function of the lake as a provincial resource, or with the protection of its shorelands.

Policies

The following policies apply generally to all public access sites.

1. The majority of MR of lands to be subdivided shall be located in areas identified as a public access site / day use area, for day use areas with lake use only, as identified on each respective figure. Density bonusing will be applied to the remainder of the subdivided area.
2. All identified public access sites and their surrounding area shall be subject to environmental review and respective provincial and federal regulation. At the time that a development application is made or at the time the County chooses to develop such sites, the public access site(s) will be subject to provincial and/or federal review and approval by the pertinent regulatory agency or agencies.
3. The County will decide which specific recreational amenities will be included within each identified public access site. A detailed park plan shall be prepared that outlines how these recreational amenities will be incorporated into and developed on the site. Unless the County develops a site on its own, a developer shall prepare and submit the detailed park plan as part of the Concept Plan/subdivision stage, to the satisfaction of the approving authority, for a public access site that is identified on their lands.
4. The area and boundaries of each possible public access site in Figures 4, 4.1, 4.2, 4.3, 4.4 in section 2.5.8 are conceptual and approximate. The exact area and boundaries of each site shall be determined at the Concept Plan/subdivision stage.
5. High quality stands of mature vegetation shall be preserved to the greatest extent possible and incorporated into the day use area.
6. Based on Principle 3. above, boat launch parking areas shall not be located within 100 metres of a boat launch and the shoreline of Sylvan Lake. The only exception to this is the queuing and drop off area for the boat launch. In addition, parking lots/areas for day use areas shall not be located within 100 metres of the shoreline of Sylvan Lake. A drop off area for the day use area may, however, be located within this setback.
7. All Protective Notations (PNTs)5 on the shoreline shall be respected for as long as the PNTs remain in place and especially in areas where emergent vegetation permanently exists.
8. All environmentally sensitive areas (including land and water) are highly valued and shall be respected to the greatest extent possible in locations that are within or adjacent to a public access site.
9. Wherever feasible, existing residences that are near or adjacent to a public access site should be respected and as such, a proper buffer should be placed between the residence and the public access development.

[5] *Protective Notations (PNT) are land reservations placed on emergent vegetation zones by Alberta Sustainable Resource Development, Fish & Wildlife. Establishment of the PNTs is based on the preservation of fish spawning and wildlife nesting habitat, as well as water quality issues. These PNTs restrict development/alteration on public or crown lands, thereby limiting future destruction of natural shoreline habitat. Furthermore, they may limit the type and extent of increased public use within these zones, including such developments as docks or piers. The PNT alone cannot restrict development, however, it ensures that proper assessment, review, design, mitigation and compensation will occur (Sylvan Lake Public Access Study Background Report, 2002).*

10. Any stream / creek that flows through or near a public access site shall be respected and sensitively incorporated into the recreational area.
11. A slope stability study shall be undertaken for any public access site that is located adjacent to a steep slope.
12. Whenever practical, parks and trails in one development shall interconnect with those in adjacent developments to provide for trail links within individual developments and to connect adjacent developments and public recreation areas.

(n) Priorities for County Action

1. If emergent vegetation continues to be absent within Protective Notations #8B and #9A at the time of development, Lacombe County should approach Alberta Sustainable Resource Development, Fish & Wildlife Division and request that the PNT be removed to allow for the development of public access on the shoreline.
2. Lacombe County should approach the Province regarding the purchase of the Crown land in Site L.

(o) Recreation Management Plan

Lacombe County recognizes the importance of developing a recreation management plan/strategy for the Sylvan Lake area. However, such an undertaking can only be effective if all municipalities around the Lake participate. Lacombe County is therefore interested in participating with other levels of government and other municipalities in the preparation of a Recreation Management Plan. One of the key matters that the Recreation Management Plan could include/address is a boating strategy.

(p) Boating Restriction Regulations

The Federal Government of Canada has jurisdiction over recreational boating regulations and would have to be involved should the municipalities around Sylvan Lake feel that regulations are required to control boating. The Federal process is based on education and co-operation before regulation.

2.5.9 Agriculture

The Lacombe County Agricultural Guide: Supporting the Vision of Agriculture in Lacombe County (2016) states that the vision for agriculture in the County is that "agriculture is valued, respected and supported in Lacombe County and, as a result, a healthy, prosperous and sustainable agriculture industry and rural community thrives within the municipality". The Municipal Development Plan objective and supporting statements further underpin this vision as outlined

Protect and encourage the County's strong agricultural community.
Support agricultural activities
Seek to preserve high quality farmland
Protect agricultural land by encouraging responsible subdivision practices
Allow for agricultural diversification

(a) Agriculture within the Lake Development Area & Sylvan Lake Watershed

This Area Structure Plan recognizes and supports the agricultural context of the Plan Area, and the fact that agriculture is currently the predominant land use within the Plan Area. In regard to lands that are in agricultural production as part of the remnant lands created by a conservation cluster development, this Plan encourages the following agricultural uses on these remnant lands:

- specialized crops and/or other specialized agricultural pursuits,
- fruit/berry farms,
- orchards,
- Christmas tree farms,
- market gardens,
- organic farming,
- u-pick farms,
- community gardens,

- flowers and greenhouses, or
- appropriate types of agri-tourism.

Policies

The following policies apply to agriculture within the Lake Development Area & Sylvan Lake watershed:

1. New or expanded confined feeding operations (CFO) shall be prohibited within the watershed, appreciating that the Natural Resources Conservation Board (**NRCB**) will formally determine any applications for CFO"s. This is in accordance with the County"s Municipal Development Plan (MDP) which states that no new confined feeding operation shall be permitted less than 1.6 km from the boundary of an area developed or designated for multi-lot residential use or from a provincial or municipal park or recreation area, or other area used or intended to be used for a recreational facility development.
2. A range of home based businesses will continue to be considered on a discretionary basis as a means of augmenting farm income.

(b) Agriculture Outside of the Lake Development Area

Policies

The following policies are in addition to the policies identified in Section 3.8 and apply to agriculture within the Agricultural Area (lands outside of the Lake Development Area & Sylvan Lake watershed):

1. Proposals for new or expanding confined feeding operations (CFO) outside of the Lake Development Area will be subject to the policies in the County"s MDP and the review and approval of the NRCB.
2. A range of home based businesses will continue to be considered on a discretionary basis as a means of augmenting farm income.

2.6 Environmental Protection & Enhancement

2.6.1 Protecting Lake Water Quality & the Watershed

A lake watershed refers to the area of land that drains into a lake. Activities that occur in the watershed influence the quantity and quality of water that enters the lake and the overall health of the lake ecosystem. For example, runoff from agricultural land often is a source of nutrients and bacteria. Lake waters may also be polluted by nutrients and bacteria leaching from septic systems into shallow aquifers. Runoff from urban and agricultural areas can contribute significant quantities of nutrients, bacteria, pesticides, metals, oils and other contaminants to lakes. To maintain the health of a lake, it is important to manage non-point source pollution originating from the lake"s watershed (ISL, 2003).

a) Background Characterization of Sylvan Lake's Watershed & Water Quality

Sylvan Lake is unique as it has a very constrained (small) drainage basin / watershed, no regular outfall, and most of the inflowing tributary streams are ephemeral (flow irregularly and are dry at times). In some ways the small size of the drainage area has benefitted water quality as the tributary steams are very short and drain very little agricultural land – the primary source of excess nutrient loads (74% and 55% of phosphorous and nitrogen respectively).

Sylvan Lake is considered „mesotrophic" – meaning „moderately productive" of weed and algae growth. This is the best situation for a recreational lake as it is less productive of algae than „eutrophic" (Gull Lake) or „hypereutrophic" (Pine Lake) lakes which produce much more algae and weed growth. This moderate productivity of algae and weed growth enables the Lake to support a strong fish spawning habitat. According to Alberta Environment, the water quality of the Lake has remained constant over the past two decades.

There is a lack of scientific consensus with regard to the portion of lake water that is replenished annually through groundwater flows. Certain research suggests that the „residency" time (the time the water remains in

the lake) could be around 25-30 years. While other research supports a much longer residency time of up to 100 years. In other words, water flowing into the lake would on average remain there for 100 years. The groundwater, with its lower content of chemicals supporting organic growth (particularly phosphorus), would dilute the water entering the lake from streams and storm runoff across agricultural land resulting in less productive and clearer water.

As a whole, water quality is considered to be the most important long-term factor influencing the recreational capacity of Sylvan Lake. However, because of the high water quality associated with the lake at present, water quality is not considered to be a limiting factor for increased public access and recreational use of Sylvan Lake over the short-term (ISL, 2002). Water quality has remained high over the last 20 years around the lake and is not expected to change in the near future (ISL, 2002). But given that the long term health and sustainability of the lake and its water quality is one of the top priorities of this ASP, the strategies outlined below provide for the protection of the water quality and watershed of Sylvan Lake in the short-term, and well into the future.

b) Strategy

The level of additional development that the Lake can tolerate from a water quality perspective will be directly related to the ability of the developments to limit their incremental nutrient contributions to the lake. (AXYS Environmental Ltd. 2005).

Basic to protecting the lake water quality would be a systematic **monitoring** regime preferably undertaken by the Sylvan Lake Management Plan Committee with Alberta Environment involvement. Over the past 50 years the lake water has been tested frequently, however, there is currently no formal monitoring program in place. Alberta Environment has supported the Alberta Lake Management Society report on Sylvan Lake water quality in 2000, 2001, 2003, and 2006, and monitoring needs to continue on a regular basis into the future.

A monitoring program of the type proposed during the development monitoring periods should focus on levels of phosphorus, algae (chlorophyll), water clarity, bacterial content, routine water chemistry, major ions, alkalinity, hardness, dissolved oxygen and a range of compounds. Lacombe County encourages the Sylvan Lake Management Plan Committee to develop a cost sharing approach amongst municipalities to finance a regular monitoring program.

c) Riparian Setbacks, and Environmental Reserves and Easements

The Plan Area in addition to Sylvan Lake contains several streams and a number of ephemeral or intermittent streams. As well as the six (6) m setback from waterbodies mandated in the Municipal Government Act, it is common for municipalities to require a further setback from lakes, rivers, and streams to protect against pollution and provide additional public access opportunities. Lacombe County"s MDP requires a 30 m setback from the lake edge to not less than 5 m beyond the top of the bank. This strip is designated as environmental reserve (ER) and may be supplemented by a 5 m or greater strip of MR or otherwise dedicated land.

The riparian setbacks for wetlands (as defined under the Wetlands of Canada, Environment Canada, 1981) within or adjacent to development sites will be determined on a site specific basis but will not be less than 30 m. The primary purpose of the 30 m ER strip is to protect water quality by capturing sentiment and chemicals before they reach the lake. The effectiveness of the strip is greatly enhanced by the presence of vegetation and a grass strip to help capture phosphorous.

An expansion of the ER setbacks may be required in situations where there are steep slopes that can accelerate erosion or areas adjacent to the lake where there is shallow groundwater present. The County may require ground water studies in such cases to map the extent of alluvial aquifers/groundwater and require further

setbacks. This requirement would be based on findings and recommendations of an environmental impact assessment and a geotechnical study (slope stability study). The geotechnical study is not required. However, the County may require one if the County deems it is warranted. The additional ER setbacks would be for the purpose of protecting the groundwater and to maintain the natural vegetation.

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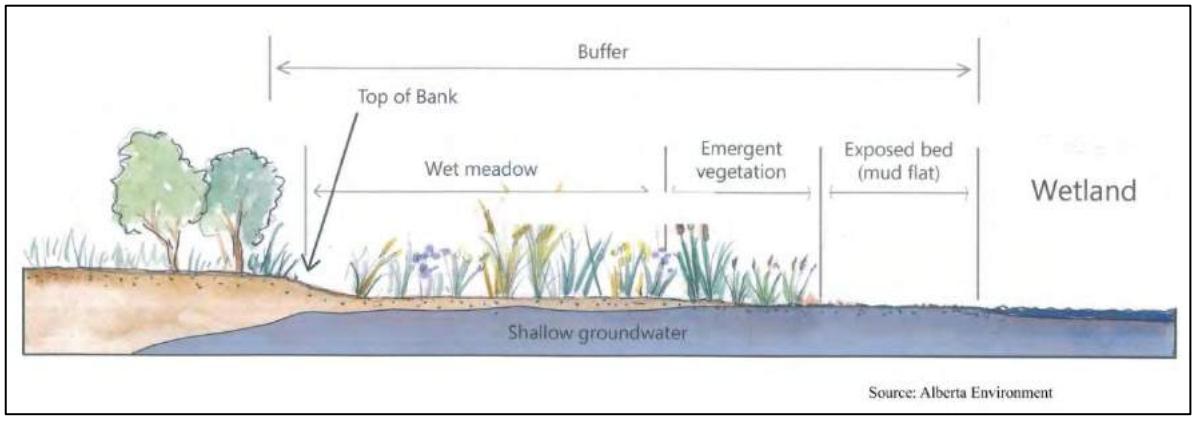
A 30 m setback will applied to permanent streams flowing into the lake to protect from erosion and contamination. Municipal reserve or other lands allowing public access may be located along the environmental reserve corridors.



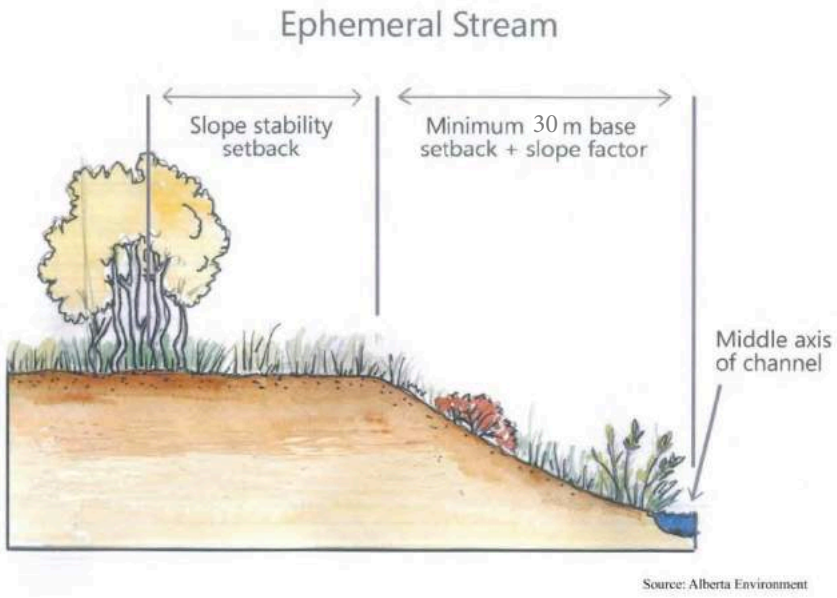
In regard to intermittent/ephemeral/temporary/seasonal streams,[6] a minimum ER setback of 30 m on either side of streams is recommended. This setback is open to site-specific modification through discussion with the County. The purpose is to minimize the amount of nitrogen, phosphorous and sediments flowing into the stream and the lake. The use of appropriate vegetative cover which traps sediment (and therefore nitrogen) or other designed approaches (e.g. settling ponds) which could be incorporated into the storm drainage system would also contribute to achieving this goal.

The ephemeral/intermittent/ temporary/seasonal streams pose a subdivision design challenge. They can be defined as „Water bodies where the presence of water ceases for a time due to variation in climatic or seasonal conditions, including snow melt/spring runoff, seasonal storms and drought conditions. These changes are considered part of the natural cycle. …can remain dry for many years and may be fully restored after prolonged precipitation." These water bodies are located in the low areas where new developments commonly locate storm swales and ponds. The level of protection to be afforded the intermittent streams will be determined on a project/site specific basis. Developers must identify such water bodies through an environmental impact assessment and address them in the design as part of a concept plan and rezoning application. The level of protection will depend in part on the surrounding land use. If the lands originally drained are now fully developed, the function of the intermittent stream will have been severely changed and it will no longer be draining agricultural lands which had been contributing heavy nutrient loads into the lake. In such cases the stream may be incorporated into the storm drainage system. In cases where there is still agricultural runoff into the stream, setbacks should be required to protect water quality.

[6] *Streams where the presence of water ceases for a time due to variation in climatic or seasonal conditions, including snow melt/spring runoff, seasonal storms and drought conditions. These changes are considered part of a natural cycle. Intermittent, ephemeral/temporary/seasonal streams (or portions of) can remain dry for many years and may be fully restored after prolonged precipitation.*

Policies

1. As part of subdivision approval, a minimum: 30 metre environmental reserve setback shall be required from the bank of the shores of the lake, 30 m from all wetlands and 30 m from permanent streams to the property line.
2. The setback may be increased due to steep slopes, erosion, shallow ground water, particularly sensitive contamination concerns.
3. The County may require groundwater studies designed to identify areas with shallow groundwater susceptible to contamination for protection.
4. Ephemeral/intermittent streams must be mapped in development applications and will require 30 m ER setbacks at the discretion of the Approving Authority.
5. Developers or private landowners on lands adjacent to the shoreline shall not be permitted to create an artificial beach or plant grass or non-native plant species within the 30 metre environmental reserve setback.
6. Except within the 30 metre ER shoreline buffer strip in those instances where public access is not required or desirable in a proposed subdivision, the County may consider registering an environmental reserve easement in lieu of taking environmental reserve dedication.



d) The Importance of Natural Vegetation

Natural vegetation, particularly riparian vegetation and terrestrial vegetation (forest cover, etc) near the lake is important for maintaining water quality. Shoreline vegetation and forest cover act as buffers, filtering nutrients and sediments before they enter the lake. Shoreline vegetation also stabilizes shorelines, reducing the effects of erosion and sedimentation resulting from wave action or icethrust.

Native terrestrial vegetation in the Sylvan Lake watershed has seriously been reduced by past human activities. According to the Public Access Study, approximately 77% of the watershed area, which was originally forested with trembling aspen, has been cleared for agriculture and urban/rural residential uses (ISL, 2002). Other sources, such as the Atlas of Alberta Lakes (1990), suggest that up to 90% of the drainage basin has been cleared for agriculture since the early 1900s. The remaining total forest cover within the lake development area

of this ASP is approximately 588 hectares (1452 acres), which means that ~17% of the lake development area is covered by forest. Thus, the remaining forest cover around Sylvan Lake is limited.

Because so much of the Sylvan Lake watershed has been cleared and so much of the shoreline has been altered by development, conservation of remaining forested areas around the lake is a priority of this ASP in the planning of future developments around the lake. Efforts should also be made to re-establish forested vegetation buffers in areas close to the lake, where natural forest cover has been lost.

In addition to helping maintain water quality through filtering runoff, natural terrestrial vegetation also plays an important role in providing habitat for wildlife, including both birds and mammals. Larger and connected forest blocks provide year-round cover and forage for larger ranging mammals such as deer and coyotes, as well as forest interior species of birds, and species sensitive to human related disturbance (ISL, 2003). According to the Sylvan Lake Public Access Study Findings & Recommendations Report, these areas are of critical importance in maintaining biological diversity and ecological function in the Plan Area. Furthermore, continued habitat loss and fragmentation of these remaining contiguous blocks of forest will likely adversely affect species composition and abundance of both plants and wildlife in the Sylvan Lake area (ISL, 2003). The long term effect is a loss in species diversity.

Preservation of Forest/Vegetation Cover Policies

The preservation of forest cover policies below reflect the values of water quality protection and also the protection of terrestrial vegetation and wildlife:

1. Developers and private landowners shall endeavour to preserve the remaining forest cover (large forest blocks) surrounding the lake when planning a new development, to the greatest extent possible.
2. To the greatest extent possible, future development shall occur on lands that have already been cleared and shall be avoided in areas of natural vegetation cover.
3. Wherever possible, the majority of internal roads within a subdivision development shall be restricted to the outer edge of forest blocks.
4. Connectivity of large forest blocks shall be preserved.
5. In instances where at least 75% of a parcel is covered by forest/vegetation,[7] a minimum of 50% of the parcel shall be preserved and retained in its current state, with development only occurring on the remaining 50%

[7] *There are four parcels of a significant, developable size within the Plan Area that are completely covered by forest and/or shrub vegetation. These parcels include SW19-39-1-5, NE24-39-2-5, NW24-39-2-5 (Plan 962 2893, Blk 1) and SW34-39-2-5. In addition to these parcels, there are only seven parcels within the Plan Area where at least 75% of the parcel is covered by forest and/or shrub*

of the parcel. A forested area in this circumstance must retain its appearance as a heavily wooded area once development is complete, to the greatest extent possible.

6. As part of the effort to ensure the long-term sustainable health of the lake-environment and lake water quality, developers are encouraged to contribute to the restoration and the re-establishment of natural vegetation cover within the Sylvan Lake watershed (using native plant species).
7. Developers of lakeshore subdivisions shall preserve vegetation along and in close proximity of the shoreline of the parcel to the greatest extent possible.
8. Raptor nesting areas, particularly of species which rely on the lake environment (e.g., osprey and bald eagle) shall be identified and avoided as sites for development or the appropriate set back distance, determined through environmental assessment, should be implemented.
9. Connectivity between habitat patches around the lakeshore should be maintained and enhanced to ensure the ecological viability of remaining habitat.
10. All proposed subdivision development plans shall include an environmental overview/assessment which defines measures to protect any unique habitat areas within the development parcel.

e) Residential Property Initiatives

The ASP policies below are intended to protect lake water quality through residential property restrictions. These policies will be implemented through the following:

- As part of lot purchase conditions for development such as restrictive covenants,
- Homeowners association bylaws, and/or
- Bareland condominium bylaws.

Policies

1. Installation of erosion and sediment control measures are highly encouraged during construction and landscaping. Any major construction activities that expose soil require the use of sediment and erosion control measures to mitigate potential sediment transport.
2. Gardens should not be located on a slope on a property since it would promote soil erosion and runoff.
3. The use of intense growing techniques such as inter-cropping, succession planting, and raised beds are highly encouraged as this will minimize the amount of exposed soil.
4. Pesticides should be avoided.
5. Planting of native vegetation, reducing lawn sizes and xeriscaping are highly encouraged.

2.6.2 Environmental Studies Required

The following is a list of studies and information that shall be required by the County as part of development approval for a multi-lot/unit subdivision:

1. Phase I Environmental Site Assessment (ESA)[8]

The Phase 1 ESA shall be prepared by a qualified professional in accordance with the Canadian Standards Association. This involves reviewing historical records such as land titles, maps and aerial photography; identifying current land use; and conducting a surface-level site inspection.

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vegetation. These parcels include SW20-39-1-5, SW25-39-2-5, NE26-39-2-5, the eastern parcel of NW26-39-2-5, SE34-39-2-5, the northeast parcel of SW21-39-2-5 and SW14-39-2-5.

[8] *Environmental Site Assessment as defined in the Lacombe County Municipal Development Plan.*

A Phase 2 Environmental Site Assessment may be required if the Phase 1 study reveals the possibility of contamination. A Phase 2 assessment involves an intrusive investigation of the soils and ground water to determine if there are any impacts present. A Phase 3 assessment may then be required to outline actions to be taken to address contamination.

2. Environmental Impact Assessment (EIA)[9]

An EIA shall be prepared by a qualified professional. The environmental impact assessment will need to address all potential impacts of the development and the extent to which these impacts may be mitigated through the design of the development, construction procedures and operational (or management) practices. Furthermore, the EIA shall address and include the following:

a. a biophysical inventory and assessment[10];
b. an indication of the limitations of the study, criteria used in predicting effects, and interests consulted; and
c. a prediction of the effects (both positive and negative) that the proposed development may have on the site and its surroundings;
d. recommended measures to mitigate any negative effects identified.

[9] *Environmental Impact Assessment as defined in the Lacombe County Municipal Development Plan.*

[10] *A biophysical inventory and assessment shall identify vegetation and wildlife species, habitats and ecosystems with particular attention to rare and „valuable" species. Should the inventory/assessment indicate a threat to „rare" species or to valued plant or animal communities the application shall include proposed mitigation measures.*

B SIZE 11" x 17" (279.4mm x 431.8mm)

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AECOM FILE NAME: 4687-004-00_00-CPF016_RX.dwg

Rainy Creek Road
Twp Rd 39-4
Twp Rd 39-2
Hwy 11
Hwy 11A
Hwy 20
Aspelund Road
Rge Rd 2-5
Rge Rd 2-4
Rge Rd 2-3
Rge Rd 2-2
Rge Rd 2-1
Rge Rd 2-0
Rge Rd 1-5
Rge Rd 1-4
Palm Bay
Sylvan Lake Natural Area
S.V.of Sunbreaker Cove
Blissful Beach
Eagle's Quay
Yuill
Westside Country Estates
Kuusamo Krest
Silver Springs
S.V.of Birchcliff
S.V.of Half Moon Bay
Jarvis Bay Provincial Park
S.V.of Jarvis Bay
S.V.of Norglenwold
Town of Sylvan Lake
Lacombe County
Red Deer County
Sylvan Lake

LEGEND

- PLAN AREA BOUNDARY
- WATERSHED BOUNDARY
- KEY UNGULATE HABITAT[1]
- KEY FISHERIES HABITAT[1]
- KEY WATERFOWL HABITAT[1]
- WETLAND VEG. + 15 m SETBACK
- 10 to 15 m STREAM SETBACK
- 30 m LAKE SETBACK
- PROTECTIVE NOTATION (PNT)[2]
- STEEP SLOPES (CONCEPTUAL)

NOTES:

[1] Environmentally Sensitive Areas as identified in the Sylvan Lake Management Plan (2000)

[2] Protective Notations (PNT) as identified in the Sylvan Lake Public Access Study Background Report (2002)

N

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Lacombe County
Sylvan Lake Area Structure Plan

Environmental Features
Figure 5

AECOM

3. Transportation & Access

3.1 Roadway System

3.1.1 Existing Roads

Lacombe County road network has been established on the basis that no person has to travel more than four (4) miles to reach a paved road and further aims at providing the best possible level of municipal service through a base of collaborative and supportive teamwork. Any connectivity issues that arise within the plan area will be addressed through Lacombe County's five (5) year Road Construction Plan. The contributions towards ensuring connectivity for each individual development will be assessed on an individual basis based on the information provided by the required Traffic Imapct Assessment.

3.1.2 Proposed Transportation Connection Solutions

As the east side of the lake develops, transportation connections need to be provided between:

- The area north of and surrounding the SV of Birchcliff and the area north of and surrounding Blissful Beach.
- The area north of and surrounding Blissful Beach and the area north of and surrounding the SV of Sunbreaker cove.

As the west side of the lake develops, transportation connections could be provided between:

- The area directly south of Kuusamo Krest between Range Road 2-3 and Range Road 2-4.

Where a transportation connection is on a privately owned parcel, the landowner/developer of that parcel will be required to construct the segment of road that is identified on their parcel at the time they choose to develop their land. Since this road serves a regional role, the cost will be shared between the developer and the County based on use ratios negotiated at the time of development. Roads local to a development are the responsibility of the developer. The design standard of the connecting „regional" road to be constructed will be at the future discretion of the Approving Authority.

One existing road that will eventually function as a main connector road, servicing the whole area, is Range Road 2-5 between Rainy Creek Road and Highway 11. The County has already identified this segment of road as a future municipal main road at some point beyond 2014. Furthermore, the *Highway 11 Corridor Management Study* (2005) recommended Range Road 2-5 as a future interchange location at Highway 11 whenever Highway 11 is converted to freeway status. This would improve traffic connections for a large portion of the Plan Area, diverting traffic away from the Town of Sylvan Lake.

3.2 Traffic Impact Assessment (TIA)

A traffic impact assessment will be required for most developments at the discretion of the municipality. Smaller developments are likely to have minimal impact on traffic volumes and may not require a traffic impact assessment. The TIA will determine the traffic impact of the development on external roadways and adjacent lands and the upgrading that would be required to these roadways as a result of the proposed development. The traffic impact assessment will also predict the increase in traffic volumes and changes in traffic patterns attributable to the development in question.

3.2.1 Transportation Master Plan

Given that individual traffic impact assessments tend to only focus on the impact of the individual project, a more comprehensive TIA or Transportation Master Plan is needed to establish what long-term road network is needed for the growth and development at Sylvan Lake as a whole. This is especially evident given the amount of growth and development that is contemplated around Sylvan Lake by this ASP. The Transportation Master Plan would identify what improvements are required and where, when these improvements need to be made, and how they are to be paid for. Road improvement charges (or off-site levies) would be established based on the study results.

Recommendation:

The Sylvan Lake Area Structure Plan recommends that a Transportation Master Plan be prepared for the lands that are within the Plan Area once significant new development has occurred.

3.2.2 Road Improvement Charges

In the interim until a Transportation Master Plan is prepared, developers will pay for the cost of development-driven upgrades to external roads. The developer is responsible for building internal roads at their sole cost and to the satisfaction of the municipality. In cases where the County requires that the developer pave to the nearest paved road, „endeavours to assist" could be applied as part of the Development Agreement.

4. Servicing

4.1 Sanitary Sewers

The Province is participating in the funding of a regional wastewater trunk/ collection system along the northeast side of the lake. The original conceptual alignment for the sanitary sewer trunk is shown in Figure 4. Council recently determined that the County owned road rights of way will be used for the trunk construction. The alignment shown in Figure 4 is conceptual only and is not necessarily shown along road rights-of-way where Council has suggested the trunk should be located. The actual alignment may be changed at a later date.

This trunk would provide sanitary service for the summer villages and new development in the County. This will provide a permanent safe disposal system that will ensure the maintenance of high water quality. New development will be required to hook into the new trunk.

At the subdivision stage, rights-of-way must be established from each development area to the trunk. Further engineering work to the level of a concept design is required to establish the right of way requirements and to provide detailed criteria for new development connection requirements.

All new developments on the north side of the lake will be required to connect to the new regional wastewater trunk at the time of initial development construction. This will require The County/Sylvan Lake Regional Wastewater Commission to:

- Determine the alignments of feeder mains to the regional trunk,
- Ensure that the rights-of-way are available for feeder main construction,
- Identify possible connection points for feeder mains
- Divide the drainage area into subareas that will drain to a specific feeder main (some optional connections may be possible)
- Develop principles for construction and financing of feeder mains including „endeavour to assist" policies

No multi-lot/unit residential development will be allowed along the south side of the Lake until development can be connected into a regional or a municipal wastewater line.

4.2 Water

At present, potable water in existing developments in the Plan area comes from groundwater aquifers. The Sylvan Lake Regional Partnership Initiative – Regional Water/Wastewater Feasibility Study states that there appears to be sufficient groundwater to support the consumption needs of all the summer villages and new lakeshore developments over the short term, but will exceed the groundwater supply in the Sylvan Lake watershed over the long term based on current population growth estimates for all eight (8) municipalities and this ASP. The Study therefore states that groundwater servicing should be considered only as an interim servicing solution to be used until a more sustainable regional surface system can be fully implemented.

According to the Feasibility Study, the Red Deer River is the only suitable surface water source for supply of potable water to the Sylvan Lake region and the Study nullifies other sources such as Sylvan Lake, the Medicine River and the Blindman River. As such, the Feasibility Study recommends two surface water alternatives: the existing City of Red Deer Water Treatment Plant and the existing Anthony Henday Water Treatment Plant, both of which treat water from the Red Deer River. A regional water transmission main would be extended from the chosen source to service

the Sylvan Lake region. Servicing the Sylvan Lake region will require the extension of water transmission mains around the Lake, and the development of reservoirs throughout the system.

Groundwater servicing for new developments may be adequate to only continue for the short to medium term. A deferred servicing caveat will be required for all new developments, requiring them to connect to a regional water line at such time a regional water line is constructed.

All developments will require Alberta Environment approval for groundwater extraction and must construct a communal servicing system that can be connected to the regional water line. Alberta Environment requires each proposed development to confirm/prove that there is sufficient groundwater supply.

4.3 Stormwater Management

The relatively short distances (varying between one and three miles) required to drain runoff water and the general slope of land towards the lake preclude the need for large drainage structures as well as the need to convey runoff water over long distances. There is a need for the following stormwater management measures to control the impact of new development runoff on the lake water quality:

1. For all new multi-lot subdivision proposals, a preliminary / conceptual stormwater management plan should be submitted for consideration of any rezoning application and to assist in the preparation of the supporting concept plan. Furthermore, as a condition of subdivision approval, a developer of every new multi-lot subdivision must prepare and submit a detailed stormwater management plan (prepared by a qualified professional acceptable to the County) for consideration by the municipality. The detailed plan shall establish a system that will accomplish the following:

    a. Address the potential impact of development runoff discharge into the watershed and provisions to address negative impacts.
    b. Evaluate the need to develop stormwater management facilties within the development to control the rate of runoff and quality of water discharged into the drainage basin.
    c. Identify all features of the stormwater management system including discharge procedures and

water quality monitoring procedures proposed for the system.

d. Identify requirements for rights-of-way and Public Utility lots.

e. Ensure that the minor system overland drainage and any stormwater management facility specifications and discharge water quantities and quality conforms to Alberta Environment Guidelines.

f. To the greatest extent possible, storm water runoff shall not be permitted to empty directly into the lake, streams or localized standing water bodies on or adjacent to the development site without first passing through a stormwater managment facility to facilitate ground infiltration, control the flow rate and remove silt and sediment.

g. Ensure that the stormwater management facility shall have the capacity to reduce post development peak runoff rates to equal pre-development rates for the developed area.

h. Periodic monitoring of water quality parameters (e.g. TP, TN) in the stormwater management facility shall be undertaken in accordance with Alberta Environment to identify potential nutrient or contaminant issues.

i. Evaluate the potential impact of development runoff on the existing drainage ditches and culverts to ensure adequate capacity is available and drainage capacity needed for other lands is not adversely affected or new and existing ditches and structures are not damaged by erosion. Where negative impacts are identified the developer shall propose and implement provisions to mitigate the negative impact.

2. All storm water management facilities shall be located outside of road rights of way and shall be contained within public utility lots, to the greatest extent possible. Road ditches may be used as part of a stormwater management plan, but water detention or retention in the road ditch is not permitted.

3. All stormwater management systems as part of a development shall be in accordance with the County"s municipal engineering standards and should incorporate the following Best Management Practices:

   a. Reduced lot grading: In areas with relatively flat gradient, a reduction to minimum lot grades should be considered. In areas containing natural depressions and hills, alterations to the natural topography should be limited. Rationale: Reducing the lot gradient limits the volume of runoff from small storm events that are usually the main stormwater contributor. This practice increases the travel time of runoff and increases the availability and opportunity for depression storage and infiltration.

   b. On-lot infiltration systems (soakaway pits) should be used as this will allow stormwater to percolate into the groundwater and reduce stormwater surface flows.

   c. Roof leaders (eave troughs) of buildings shall be directed to rear yard depressions as this will allow stormwater to infiltrate and evaporate, limiting downstream flooding and erosion.

   d. Permeable road paving surfaces would be considered for approval by the County for internal subdivision roads as this paving type can result in 10-15% more surface infiltration. (Since engineered storm drainage systems are costly to design and build, use of permeable pavement systems can also result in a reduction of construction costs for developers or municipalities.)

   e. Wherever possible, all surface parking lots shall incorporate permeable paving surfaces.

   f. Grassed swales shall be used to convey stormwater.

   g. Constructed stormwater wetlands provide deleterious substance removal through biological activity, uptake and conversion by plants, microbial degradation, and through physical processes such as sedimentation and filtration.
   (Constructed wetlands provide better opportunities for stormwater treatment than natural wetlands do because they can be designed for specific stormwater quality and quantity parameters.)

h. Use of wet ponds are highly encouraged as wet ponds hold runoff and release it at slower rates than incoming flow, allowing the settlement of pollutants and nutrient uptake through biological processes.

i. Use of infiltration trenches may be appropriate in certain developments as it can reduce the amount of dissolved pollutants in stormwater. (Infiltration trenches increase the rate of stormwater infiltration and are effective in managing runoff from small residential areas. Infiltration trenches are best used in conjunction with other stormwater management techniques.)

j. Every available erosion control tool shall be used during and after construction to minimize the potential of contaminates reaching the lake during the construction phase.

4.4 Other Utilities

Extension of shallow utilities throughout the Plan Area shall be the responsibility of the developer. The right-of-way and servicing requirements shall be determined at the tentative plan of subdivision preparation stage.

4.5 Fire Protection

All communal water supply systems that will service a new development shall have a reservoir of sufficient capacity and design, or an alternative acceptable to the County, to provide the required volume, pressure, level of service to the proposed development as deemed appropriate by the County and Alberta Environment. The design of the proposed developments will provide patterns that avoid bottlenecks and isolated pockets of development. Longer cul-de-sac roads shall have a future emergency access to exit the area in case of a fire.

Policies

1. As part of an application for multi-lot/unit development, developers shall provide a fire protection plan to the Municipality in accordance with the Alberta Building Code and FireSmart Manual.
2. Hydrants will be included in all new major multi-lot/unit developments.
3. A developer will include FireSmart guidelines within any architectural guidelines noted on restrictive covenants on title.

5. Implementation, Monitoring and Amendments

5.1 Statutory Framework

The Sylvan Lake Area Structure Plan, adopted by bylaw, is a statutory document of Lacombe County and has been prepared in accordance with the provisions of the Municipal Government Act. Rezoning, subdivision and development of lands within the Plan Area are required to follow the Plan policy direction. In accordance with Section 637 of the Municipal Government Act the adoption of the Area Structure Plan does not require the municipality to undertake any of the projects referred to in the Plan. The ASP also complies with the Lacombe County Municipal Development Plan and the Lacombe County Land Use Bylaw.

5.2 Concept Plans

Developers shall prepare a concept plan in support of a rezoning application for all proposed multi-lot/unit developments. As a general requirement, the concept plan must describe the land uses proposed for the property; the staging (or phasing) of the development, if applicable; the size of the lots and/or density of the development proposed; and the location of proposed roads and other utility infrastructure (e.g. stormwater retention/detention ponds). The concept plan shall be prepared in accordance with the terms of reference outlined in Lacombe County‟s *Multi-Lot Development Proposals: A Guide to the Approval Process*. However, in instances where the terms of reference in the *Guide* differ from requirements within this ASP (i.e. if the ASP requires additional information), the ASPs policies shall prevail. Some of these additional requirements that a concept plan must incorporate, include:

1. Visual Impact Assessment (see section 2.5.2).
2. Urban Design Guidelines (see section 2.5.2) for proposed developments incorporating higher density, multi-unit developments.

5.4 Plan Amendments and Regular Review

While this Area Structure Plan is designed to establish long term planning direction for the Plan Area, changing needs and considerations may require amendments from time to time. Pursuant to Section 692 of the Act, Council is required to hold a public hearing before approving any amendment to the Plan.

Generally Area Structure Plans are reviewed every 5-10 years depending on circumstances and any changes that may have occurred that could affect development in the area. The policies in this ASP are likely to be reviewed regularly as Council addresses applications. However, a formal review shall occur within the two year review period as described in Section 2.3.

This ASP contains a number of detailed recommendations and it may be necessary to amend the Plan in relation to a specific matter as new circumstances arise. Such amendments are not uncommon and will be processed as part of the approval process for an application. They will require their own hearing which could be held at the same time as the public hearing on other aspects of an application.

5.4.1 Alberta Land Stewardship Act

In 2009, the Government of Alberta adopted the Alberta Land Stewardship Act. Section 20(1) of the Act states:

> *When a regional plan is made, every local government body affected by the regional plan must*
>
> *a) review its regulatory instruments, and*
>
> *b) decide what, if any, new regulatory instruments or changes to regulatory instruments are required for compliance with the regional plan.*

Upon adoption of a regional plan under the Alberta Land Stewardship Act by the Government of Alberta that encompasses the ASP area, this ASP will require review to ensure compliance with the adopted regional plan.

5.5 Plan Exemptions

If a development has received first reading to a rezoning bylaw prior to the adoption of this ASP, the development shall be subject instead to the recommendations of the Sylvan Lake Management Plan (2000 Update) and other policies or bylaws in effect when first reading was given where there is a conflict with this ASP. The exception is that multi-lot development in Development Area 1 must connect to the regional wastewater trunk.

Appendix A - Public Access Sites

Site A: Major Public Access Site

Legal Description: SW14-39-2-5 & SE14-39-2-5; Portion of Plan 0924467, Blk 1, Lots 1 & 2 (SE15-39-2-5 & NE15-39-2-5); Public Road Allowance (Range Road 2-2).

Parcels SW14-39-2-5 & SE14-39-2-5 and the public road allowance (Range Road 2-2) will be identified as Site A1, as conceptually shown on Figure 4.1. The portion of plan 0924467, Blk 1, Lots 1 & 2 (SE15-39-2-5 & NE15-39-2-5) will be identified as Site A2. Both Sites A1 and A2 will be collectively referred to as Site A.

Sites A1 and A2 should be considered for acquisition as a major recreation area on an opportunity basis. This area has been categorized as a major public access site since it is the most suitable location for a full day use area (major public recreation area) within the entire Plan Area. These parcels have open and treed areas and could be combined to form one large recreation area such as a regional park. Site A1 would be acquired through land purchase and Site A2 would be acquired through land purchase or dedication. Site A2 is not dependent on the development of Site A1 and vice-versa. However, the overall intent is for Site A2 to form an extension to Site A1.

The site has direct access off of Range Road 2-2 and Township Road 39-2. The parcels are privately owned with the exception of the small public road allowance. There is an existing private residence/cottage adjacent to the lake in the northwest corner of Blk 1, Plan 0924467 and there are numerous buildings throughout SW14-39-2-5 which is currently being used as a Boy Scout Camp. As a result, both parcels have already been disturbed. A portion of the shoreline has steep slopes and the majority of the shoreline is heavily treed.

No portion of Site A is within an environmentally sensitive area as outlined in the Sylvan Lake Management Plan, 2000 (the parcel has low environmental sensitivity). However, there are three Protective Notations (PNT) that exist on the shoreline of this possible public access site, as illustrated in Figure 4.1. The emergent vegetation zones were identified in 1990. The Public Access Study Background Report indicates that emergent vegetation was not present in PNT #8A and #8B, according to surveys that were conducted near the year 2001. However, the Background Report states that PNTs were placed on these two areas because of the high potential for emergent vegetation to reoccur in the future. If emergent vegetation continues to be absent within PNT #8B at the time of development, Lacombe County should approach Alberta Sustainable Resource Development, Fish & Wildlife Division and request that the PNT be removed to allow for the development of public access on the shoreline. The portion of shoreline that abuts PNT #8 (excluding #8B) shall not be developed for public access and should be retained in its natural/current state to the greatest extent possible.

The Sylvan Lake ASP assumes that if the current landowner of Site A2 does develop this land, the owners of the existing residence may want a minimum buffer around their cottage from the recreation area. Assuming a 100 m buffer from the existing residence and the elimination of the PNT #8B, there is the potential for 900 m of shoreline to be developed as public access.

Site A1 is directly adjacent to the Summer Village of Half Moon Bay in the southeast corner. The interface between the two land uses / properties should be addressed to minimize the impact on summer village residents. One approach would be that the parcel of land described as SE14-39-2-5 within Site A1 may not be developed as part of the public access site.

Site B: Minor Public Access Site 1 (Non ESA)

Legal Description: Portion of parcels within the west half of SE15-39-2-5 and NE15-39-2-5 (private land); Portion of parcels within the east half of SW15-39-2-5 and NW15-39-2-5 (private land).

The identified portions of parcels within the west half of SE15-39-2-5 and NE15-39-2-5 will be referred to as Site B1, as conceptually shown on Figure 4.2. The identified portions of parcels within the east half of SW15-39-2-5 and NW15-39-2-5 will be known as Site B2. Both Sites B1 and B2 will be collectively referred to as Site B.

This area is categorized as a minor public access site (M1) and both parcels would be combined to form one public access site. This particular area is selected because it has low environmental sensitivity, is mainly cleared land (with exception of the narrow cluster of trees along the shoreline), has good access for lake-side recreational activities (according to the Public Access Study Background Report), and it has sufficient shoreline width between existing cottages. This recreation / day use area would be developed through private land acquisition through subdivision or purchase. Site B2 is not dependent on the development of Site B1 and vice-versa. However, the overall intent is for Site B2 to form an extension to Site B1.

The Public Access Study identifies this location as having moderate suitability for a potential boat launch site. There is one existing private residence/cottage on each parcel. Both parcels have a moderate slope to the shoreline. This possible site would require the acquisition of public road access through purchase or dedication upon the subdivision of the land.

No portion of any of the sites are within an environmentally sensitive area as outlined in the Sylvan Lake Management Plan (SLMP), 2000 (the parcel has low environmental sensitivity). However, the adjacent parcel to the west does have an area identified by the SLMP as a key ungulate habitat. Furthermore, there is one Protective Notation (PNT #9A) on the shoreline of this site, as illustrated in Figure 4.2. The Public Access Study Background Report indicates that emergent vegetation was not present in PNT #9A, according to surveys that were conducted near the year 2001. However, the Background Report states that PNTs were placed on this area because of the high potential for emergent vegetation to reoccur in the future. If emergent vegetation continues to be absent within PNT #9A at the time of development, Lacombe County should approach Alberta Sustainable Resource Development, Fish & Wildlife Division and request that the PNT be removed to allow for the development of public access on the shoreline.

The Sylvan Lake ASP assumes that if the current landowners of both parcels develop their land, the occupants of the existing cottage/residence may want a minimum buffer around their cottage from a significant public access area (recreation area). Assuming a 100 m buffer (as an example) from the existing residence and the elimination of the PNT #9A, there is the potential for approximately 250 m of shoreline to be developed as public access.

Site C: Minor Public Access Site 1 (Non ESA)

Legal Description: Portion of parcels within the east half of SW15-39-2-5 and NW15-39-2-5 (private land) (C1); Portion of Plan 8721962, Lots 1 & 2 and SW22-39-2-5 (private land) (C2).

The identified portions of parcels within the east half of SW15-39-2-5 and NW15-39-2-5 will be referred to as Site C1, as conceptually shown on Figure 4.2. The identified portions of Plan 8721962, Lots 1 & 2 and SW22-39-2-5 will be known as Site C2. Both Sites C1 and C2 will be collectively referred to as Site C.
At such time that the landowners of these parcels wish to develop the land for residential purposes, this area (Site C) should be developed as a minor public access site (M1) and both parcels would be combined to form one public

access site. Similar to Site B, this particular area is selected because it has relatively low environmental sensitivity, has large open areas (with exception of the narrow cluster of trees along the shoreline), and has good access suitability for lake-side recreational activities (according to the Public Access Study Background Report). This recreation / day use area would be developed through private land acquisition through subdivision or purchase. Site C2 is not dependent on the development of Site C1 and vice-versa. However, the overall intent is for Site C2 to form an extension to Site C1.

The possible site would require public road access upon/through the subdivision of the land. Site C2 is currently used for recreation purposes as a summer camp, so there are numerous existing buildings on the property. Site C1 contains existing private residence/cottages. As a result, both parcels have already been disturbed. Both parcels have a moderate slope to the shoreline.

The only environmentally sensitive area that exists within Site C is a key ungulate habitat. However, because the site has already been developed/disturbed for recreation purposes, the development of Site C should not have any greater impact on the habitat. Furthermore, Site C was selected in its specific location because it is void of any Protective Notations (PNT) adjacent to the shoreline. As a result, the development of Site C as a public lake access site will be easier than other sites that do have PNTs associated with them.

The Sylvan Lake ASP assumes that owners of the existing cottage/residence may want a buffer between their cottage and the recreation area. Assuming a 100 m buffer (as an example) from the existing residences there is the potential for approximately 300 m of shoreline to be developed as public access.

Site D: Minor Public Access Site 2 (Within ESA)

Legal Description: Portion of Plan 567TR, Blk 1, Lot R1 (Kuusamo Krest Reserve), SE21-39-2-5; portion of Public Road Allowance of Range Road 2-3.

The identified portions of Plan 567TR, Blk 1, Lot R1 (Kuusamo Krest Reserve), SE21-39-2-5 and a portion of Public Road Allowance of Range Road 2-3 will be collectively referred to as Site D, as conceptually shown on Figure 4.3.

This area is selected for future public access because of the existing public land / reserve (as part of the Kuusamo Krest subdivision) which is already owned by Lacombe County adjacent to the lake. The Sylvan Lake Public Access Study Findings & Recommendations Report (2003) recommends this site to be developed as a day use area utilizing the existing public road allowance and the Kuusamo Krest reserve parcel. Thus, Site D should be developed in a similar manner as recommended in the Public Access Study: “the Kuusamo Krest reserve, combined with the seasonal closure of Range Road 2-3, be developed as a family oriented day use site with a small parking area, washrooms, picnic sites, boardwalk and interpretive trail and viewpoints,” as illustrated in Figure 4.2.

The possible site has excellent existing access from Range Road 2-3. The residential lots of the Kuusamo Krest subdivision are approximately 170 metres away from Site D. The existing public road allowance is used as an informal boat launch site in the summer time and is also used extensively for winter access.

Site D is within or adjacent to three different types of environmentally sensitive areas (as identified in the SLMP): key ungulate habitat, key waterfowl habitat and key fisheries habitat. A Protective Notation (PNT) exists on the shoreline of this possible public access site, as illustrated in Figure 4.2. There is a wetland/marsh within the area, plus the Reserve parcel has steep slopes and is heavily treed, thus there is no open space for recreation.

Opportunities that exist for Site D is the ability to develop within the public road allowance, utilizing the existing gravel road. Also, the site has a quality forest environment for a few picnic sites.

Site E: Minor Public Access Site 2 (Within ESA)

Legal Description: Portion of NE33-39-2-5 (private land); Portion of Public Road Allowance of Range Road 2-3 (Palm Bay Road).

The identified portions of NE33-39-2-5 and a portion of Public Road Allowance of Range Road 2-3 will be collectively referred to as Site E, as conceptually shown on Figure 4.3. Site E would be developed through private land acquisition through subdivision and the existing public road allowance.

This area is recommended for future public access because of its close proximity to Rainy Creek Road, the unique character of the site with a mix of forest and open areas and the existing public road allowance that extends to the lake shore. Until such time that the landowners of parcel NE33 wish to develop their land for residential purposes, the portion of the public road allowance nearest the lake could be developed as a low key, limited use public access site, as recommended in the Sylvan Lake Public Access Study Findings & Recommendations Report (2003). The public road allowance portion of Site E should be closed to vehicular access during the summer.

The possible site has excellent existing access from Range Road 2-3 and Rainy Creek Road. The existing six lot subdivision of Palm Bay is located directly adjacent Site E to the east. As a result, to avoid potential conflict, the interface between the two land uses / properties must be properly addressed.

Site E is within or adjacent to two different types of environmentally sensitive areas (as identified in the SLMP): key waterfowl habitat and key fisheries habitat. Protective Notations (PNT) exist on the shoreline of this possible public access site, as illustrated in Figure 4.3. The shoreline of Site E shall remain its current, natural state and shall not be altered.

Site F: Minor Public Access Site 2 (Within ESA)

Legal Description: Portion of Parcel NW34-39-2-5 (& SW34-39-2-5) (private land).

The identified portions of parcel NW34-39-2-5 (could also include SW34-39-2-5) will be referred to as Site F, as conceptually shown on Figure 4.3. Site F would be developed by private land acquisition through subdivision.

This particular location has been identified for future public lake access for the following reasons:

- It is identified in the Public Access Study Background Report as having access suitability.
- The land is relatively flat with a mix of forest and a cleared area along the shoreline.
- The site and its corresponding parcel is the only parcel left on the north side of the lake that has suitable access to the lake without any steep slopes constraints.
- It is in close proximity to Rainy Creek Road.

Site F is within or adjacent to three different types of environmentally sensitive areas (as identified in the SLMP): key ungulate habitat, key waterfowl habitat and key fisheries habitat. Protective Notations (PNT) exist on the shoreline of this possible public access site, as illustrated in Figure 4.3. Appropriate measures will need to be taken to mitigate the impacts on the said ESAs. Furthermore, the shoreline of Site F shall remain its current, natural state and shall not be altered.

Site G: Tertiary Public Access Site

Legal Description: Portion of Parcel NE20-39-2-5.

The identified portion of parcel NE20-39-2-5 will be referred to as Site G, as conceptually shown on Figure 4.4. Site G would be developed through private land acquisition through subdivision.

Since Site G is located directly across the road from Site L, the primary purpose of Site G is to supplement Site L with most of the day use amenities that Site L (lake use trail node) cannot provide. Such amenities/facilities could include public parking, picnic area, small park space and washrooms, etc. Site G is dependent on Site L so it would not make sense to develop Site G prior to the development of Site L.

Site G is within a key ungulates habitat (ESA) which is part of a heavily treed area so appropriate measures will need to be taken to mitigate the impacts. Such measures could include keeping parking areas to the outer perimeter and/or not clearing large areas of trees.

Since Site G is located directly across the road from the residential properties of the Yuill subdivision, appropriate measures will also need to be taken to mitigate the impacts on these adjacent properties.

Site H: Tertiary Public Access Site

Legal Description: Portion of Public Roadway Plan 1770Y; Portion of Parcel SW25-39-2-5 (private land).

The identified portions of the public roadway Plan 1770Y and a portion of Parcel SW25-39-2-5 will be collectively referred to as Site H, as conceptually shown on Figure 4.4. Site H would be developed through private land acquisition through subdivision or purchase and utilizing the existing public road allowance.

Site H is selected for tertiary public access because of the following: a portion of the site is already publicly owned land, it is adjacent to the lake offering lake views from the top of the embankment and it has some suitability for formal day use amenities. However, the majority of the day use area would occur on the private land parcel due to the steep slopes leading to the lake within the road allowance. Amenities that could be appropriate to develop within the road allowance would be a limited local trail and possibly an elevated boardwalk leading to an observation platform/tower. The site will also serve as a day use area for Site K (lake use trail node) through the regional trail connection proposed between the two (refer to Figure 4.4), using the public roadway allowance only. The site is not located near or within any ESAs.

Site I: Tertiary Public Access Site

Legal Description: Portion of Public Road Allowance of Twp Road 39-4; Portion of Parcel SW25-39-2-5 (private land); Portion of Parcel SE25-39-2-5 (private land).

The identified portion of the public road allowance of Twp Road 39-4 will be referred to as Site I1, as conceptually shown on Figure 4.4. The identified portion of parcel SW25-39-2-5 will be referred to as Site I2 and SE25-39-2-5 will be referred to as Site I3. All three sites will be collectively referred to as Site I, as conceptually shown on Figure 4.4. Site I would be developed through private land acquisition through subdivision or purchase and utilizing the existing public road allowances. Site I could also incorporate portions of parcels NW24-39-2-5 and NE24-39-2-5, but are not required. Incorporation of the parcels would be difficult, however, due to slope constraints and parcel NW24-39-2-5 has a private driveway that would pose a conflict.

Site I is unique as it is not located adjacent to or in immediate proximity of the lake shore. The location of Site I was selected because it forms an excellent relationship with Site K via a segment of the proposed regional trail alignment. This potential trail alignment would be within the undeveloped public road allowance that leads directly to a possible trail lake use node on the edge of the lake (Site K). Thus, the purpose of public access Site I is twofold:

1) To provide a day use area for the users of the trail lake use node (Site K, which is less than 550 metres away), and
2) To provide a day use area, as well as parking, for users of the regional trail.

The development of Site I1 is not dependent on Sites I2 and I3, and vice versa. Lacombe County should consider developing the public road allowance portion of Site I prior to subdivision of the parcels that include I2 and I3. It is essential that Site K be developed prior to Site I.

Site I has relatively moderate to steep slopes and the west half of section 25 is heavily forested. The Public Access Study Background Report states that the turnaround at the end of Twp Road 39-4 leads to an existing, cleared trail used by all terrain vehicles (ATVs), pedestrians and horses. The trail also meanders off the road allowance. It is located at the end (turnaround) of Twp Road 39-4.

Site J: Tertiary Public Access Site

Legal Description: Portion of Public Road Allowance of Range Road 2-0; Portion of Parcel NW19-39-1-5 (private land); Portion of NE24-39-2-5 (private land).

The identified portion of the public road allowance of Range Road 2-0 will be referred to as Site J1, as conceptually shown on Figure 4.4. The identified portion of parcel NW19-39-1-5 will be referred to as Site J2 and NE24-39-2-5 will be referred to as Site J3. All three sites will be collectively referred to as Site J, as conceptually shown on Figure 4.4. Site J would be developed through private land acquisition through subdivision and utilizing the existing public road allowances. If the adjacent subdivided parcel, Plan 6260MC, Lot A is proposed for further subdivision, it could be included as part of Site J at the discretion of the approving authority. The development of Site J1 is not dependent on Sites J2 and J3, and vice versa. Lacombe County should consider developing Site J1 prior to subdivision of the other parcels.

The Public Access Study Background Report states that Range Road 2-0 provides access to a single property (Lot A) adjacent to the road allowance. The road allowance is gently sloped initially, then steeply to the water. The Report also states that the road allowance is not suitable for lake use due to the steep slopes, however, a small day use area with a lake view is possible.

Site K: Lake Use Trail Node

Legal Description: Portion of Public Road Allowance of Twp Road 39-4.

The identified portion of the undeveloped public road allowance of Twp Road 39-4 will be referred to as Site K, as conceptually shown on Figure 4.4. Site K and the associated regional trail would be developed within the existing public road allowance owned by Lacombe County. Once fully developed, Sites I and K, as well as Sites H and K, are intended to function as one connected public access area.

The location of Site K and its designation as a trail lake use node was chosen for the following reasons:

- It is within existing publicly owned road allowance that extends to and touches the shoreline.
- The topography is relatively flat near and along the shoreline.

- It is the only location along the north side of the lake that public access to the lake is feasible without a steep slope.

The shoreline will be retained in its current state, except in the instance where a boardwalk would connect perpendicularly from the land to a floating dock on the water. Public road allowances of Twp Rd 39-4 (portion between Site I and Site K) and Roadway Plan 1770Y (portion between Site H and Site K) should remain under the ownership of Lacombe County for use as a regional trail.

In regard to this specific road allowance approach to the lake, the Public Access Study Background Report states that even though the gully provides marginal access and the shoreline is very narrow, it should be protected through ER and not developed as a day use area. The Sylvan Lake ASP respects this evaluation. However, the intent of Site K is not to function as a typical day use area with the usual amenities such as a parking lot, picnic sites and washrooms. Rather, the sole purpose of Site K is to provide the public and trail users with controlled access to the lake, where day use amenities are provided elsewhere/nearby.

There is an opportunity for a walk-in, tent only campground (private land acquisition through subdivision would be required) on parcel SW25-39-2-5. It could be developed as part of Site I.

Site L: Lake Use Trail Node

Legal Description: SW28-39-2-5 (Crown Reserve = 0.2 hectares); Portion of Parcel NE20-39-2-5; Portion of Public Road Allowances of Range Road 2-4 and Township Road 39-4 (total of 0.3 hectares).

The identified Crown Reserve (SW28-39-2-5) and the portions of public road allowances of Range Road 2-4 and Township Road 39-4 will be referred to as Site L, as conceptually shown on Figure 4.4. The Crown Reserve portion of Site G will need to be purchased from the Province. The County already owns the public road allowances.

Site L is selected for a lake use trail node because it is publicly owned land, it abuts the lake offering views from the top of the embankment and has potential to provide pedestrian access to the lake shore. The existing physical conditions of Site L consist of a small triangular parcel (1.24 acres less the area of steep slopes) of wooded area above steep banks. Prior to the closure of the road allowance, there used to be vehicle access down the steep embankment to the shoreline, which served as an informal boat launch. The day use area of Site L shall be developed so that it is sensitive to the forested nature and steep embankment on the property.

The purpose of Site L is to only function as a lake use node along the potential regional trail. The site would be limited to amenities such as benches, a viewing platform, trail/stairs leading to shoreline, boardwalk to/along shore, and floating dock. Note: stairs would need to be constructed to enable pedestrians proper access down the steep embankment to the shoreline. Once Site G is developed, Site L will be supplemented by typical day use amenities of Site G, such as parking, picnic area, small park space and washrooms, etc. Site L should be developed prior to Site G.

There are Protective Notations (#11A and #12) that exist on the shoreline directly adjacent to Site L to the south and north. The exact locations of these PNTs will need to be defined prior to development.

The Sylvan Lake Public Access Study Background Report (2002) states that this particular site has some suitability for formal day use, but the site is very small with steep access to the lake. The Findings and Recommendations Report (2003) suggests that the road allowances be closed and the site restored to forest. The Sylvan Lake ASP respects this recommendation, however, the ASP proposes that the use of the site as a lake use trail node with limited amenities (as outlined above) is possible.

Since the site is located directly adjacent to the residential lots of the subdivision of Yuill, appropriate measures will need to be taken to mitigate the impacts on these lots/residents. Such measures could include limiting the amount of publicly accessible area (e.g. restricting public access to just the pathway, small portion of the shoreline/boardwalk, and floating dock, etc) or keeping the publicly accessible areas furthest away from the residential property lines.

Appendix B

Background Studies

In addition to conforming to the Lacombe County Municipal Development Plan, the Sylvan Lake Area Structure Plan incorporates the relevant background information and policy directions of a series of recent lake oriented studies (many were jointly sponsored by all eight municipalities within the watershed. These include the following:

Sylvan Lake Management Plan 2000 Update. The purpose of this document is to promote responsible land use and development around the lake. The plan identifies four categories of critical limiting factors for development, including land-based, water-based, social and environmental. It considers aspects such as public water access, boating safety, water quality, environmentally sensitive areas, open space, roadways and a regional sewer system. It designates three planning areas within the watershed and sets appropriate policies for each area. The plan clearly puts forth the policy that the shoreline shall remain in its natural state and that development within the watershed shall be of such a nature and quality that there shall be no adverse impacts on the lake. The Sylvan Lake Area Structure Plan supports and builds upon this approach.

The *Sylvan Lake Regional Partnership Initiative Regional Water/Wastewater Feasibility Study Final Report (Stantec Consulting, 2006).* The feasibility study considers opportunities for development of regional water and wastewater systems to service the Sylvan Lake Region to the projected 30 year development horizon. Evaluation of the regional water servicing options included a review of groundwater servicing capacity in the region and surface water supplied by the City of Red Deer or other viable sources. The Study states that servicing the lakeside region of the Study Area will require extension of water transmission mains around the Lake, and the development of reservoirs throughout the system.

Evaluation of the regional wastewater servicing options included review of options for expansion of the Town of Sylvan Lake and the City of Red Deer facilities, and development of a new stand alone plant downstream of the City of Red Deer. The Study indicates that Servicing the Lakeside region of the Study Area will require the extension of wastewater transmission mains around the Lake from the developments to the site of the Town of Sylvan Lake"s wastewater treatment plant.

The *Sylvan Lake Public Access Study (Infrastructure Systems Limited, January 2003)* provides a variety of actions and proposals for improving public access to the lake. This study considered aspects such as lake management, land use, recreational capacity, and environmental protection and enhancement.

The *Sylvan Lake Water Quality Assessment and Watershed Management Considerations Study (AXYS Environmental Consulting Ltd., July 2005)* provides direction for the management of new residential development within the lake watershed to protect, promote and enhance lake water quality. The report puts forward a strategy that is essentially based on the adoption of a drainage basin (or lake watershed) approach to land use management and development.

The *Background Final Report for the West Sylvan Lake Joint Area Structure Plan (UMA Engineering Ltd., October 2005)* provides a good part of the basis for this Area Structure Plan. Based on stakeholder involvement at a vision-building workshop in the Spring of 2005, it describes alternative development concepts for the Plan Area, as well as a framework for land use, servicing and development policies and guidelines.

The Sylvan Lake Area Structure Plan also reflects the intermunicipal agreement that was reached between Lacombe County and the Summer Villages of Sunbreaker Cove and Birchcliff in 2005. This agreement followed a mediation process to resolve differences concerning the potential impacts of several development proposals approved by Lacombe County within the watershed of Sylvan Lake. The agreement provides direction for resolving the concerns raised by the Summer Villages.