



# **Jackfish Lake Management Association**

**Presentation to Parkland County Council  
re: Proposed New Subdivision**

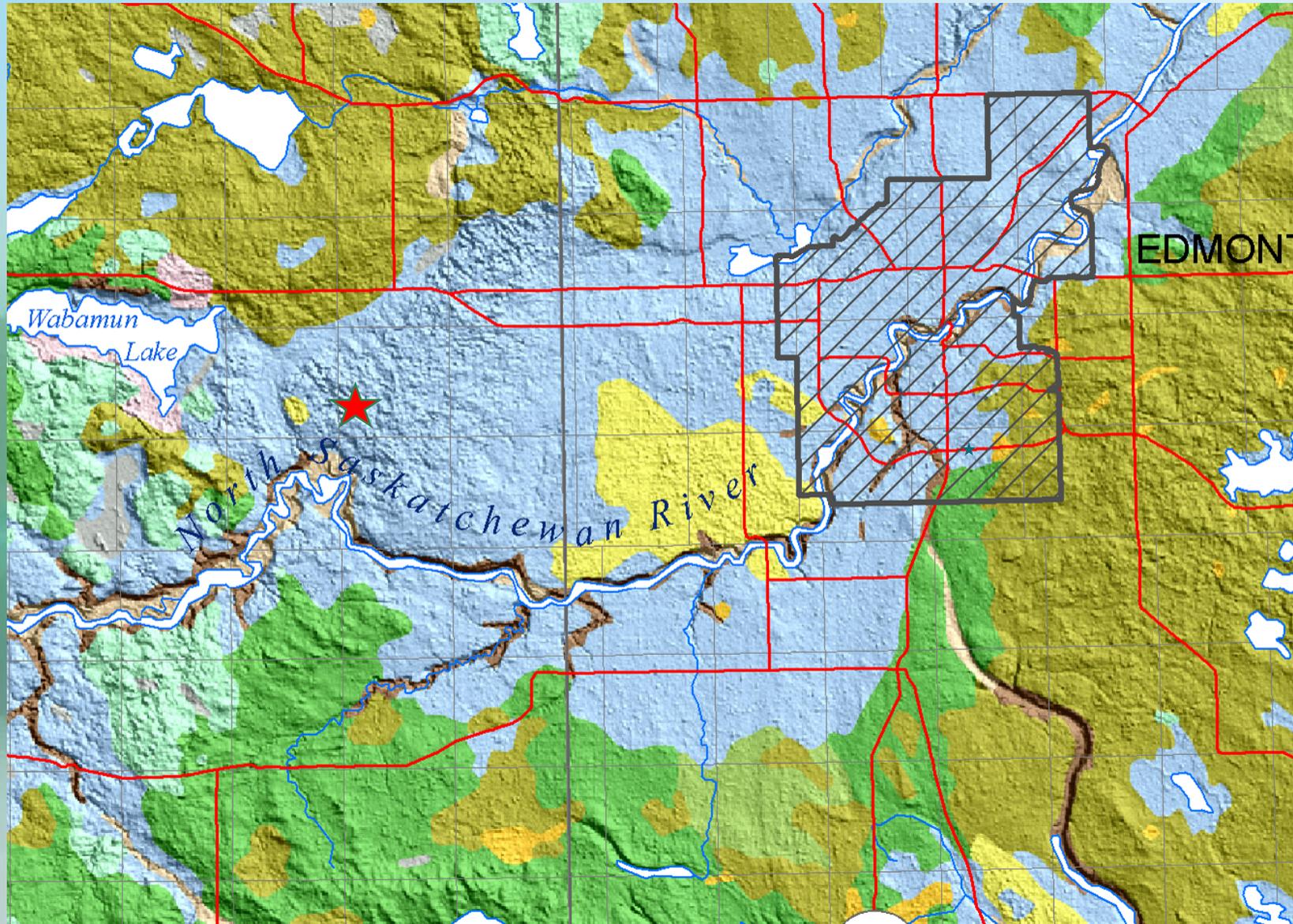
## **JLMA Position:**

Our membership has clearly identified that they are extremely concerned about the welfare & future of Jackfish Lake and surrounding community (Environmental & Lake Safety) and are therefore overwhelming OPPOSED to the proposed New Subdivision.

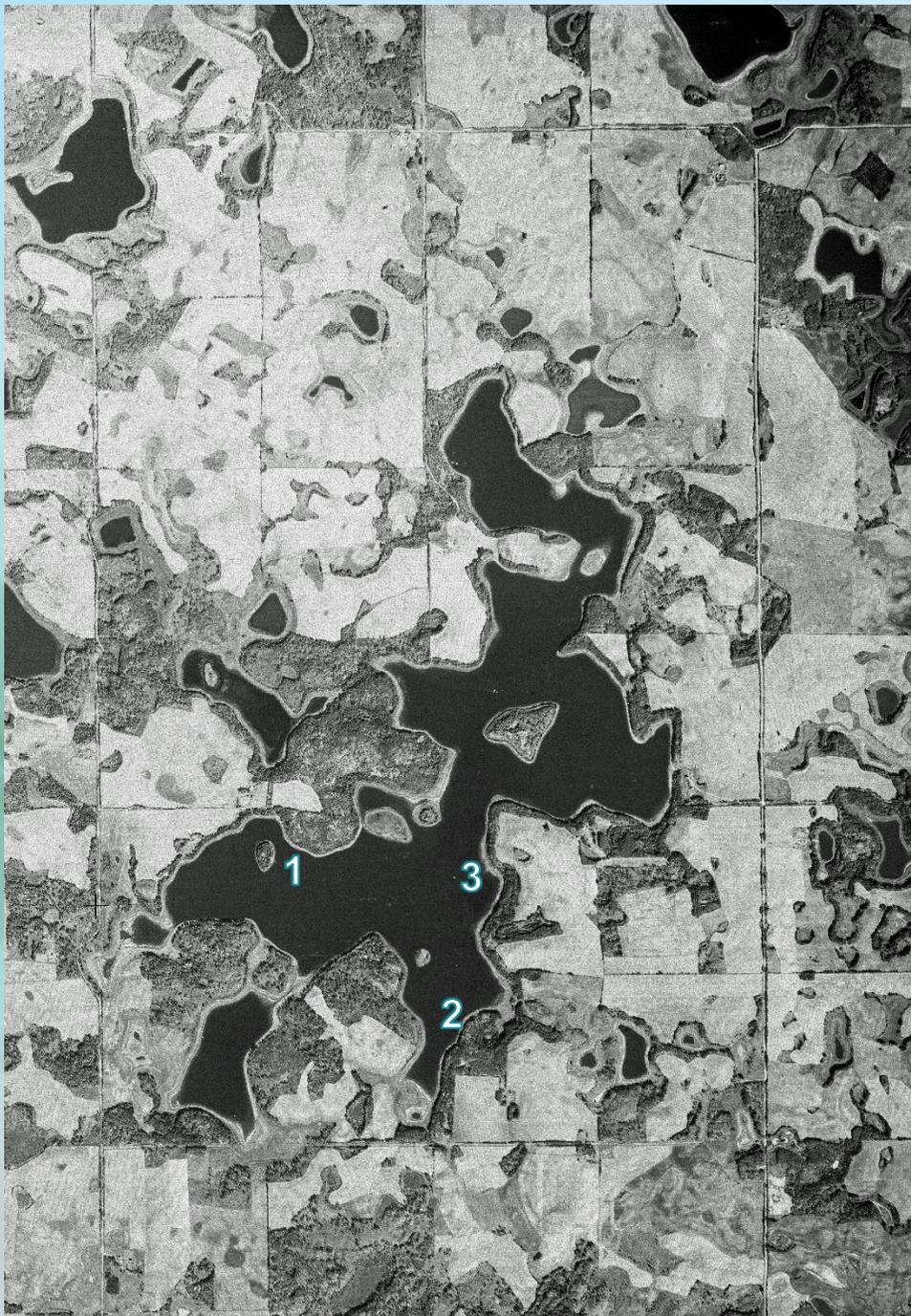
### **These concerns can be summarized into 3 key areas:**

1. Build out density concerns
2. Geotechnical concerns
3. Lake Safety (Boat & lake over use) concerns

# Surficial Geology Map



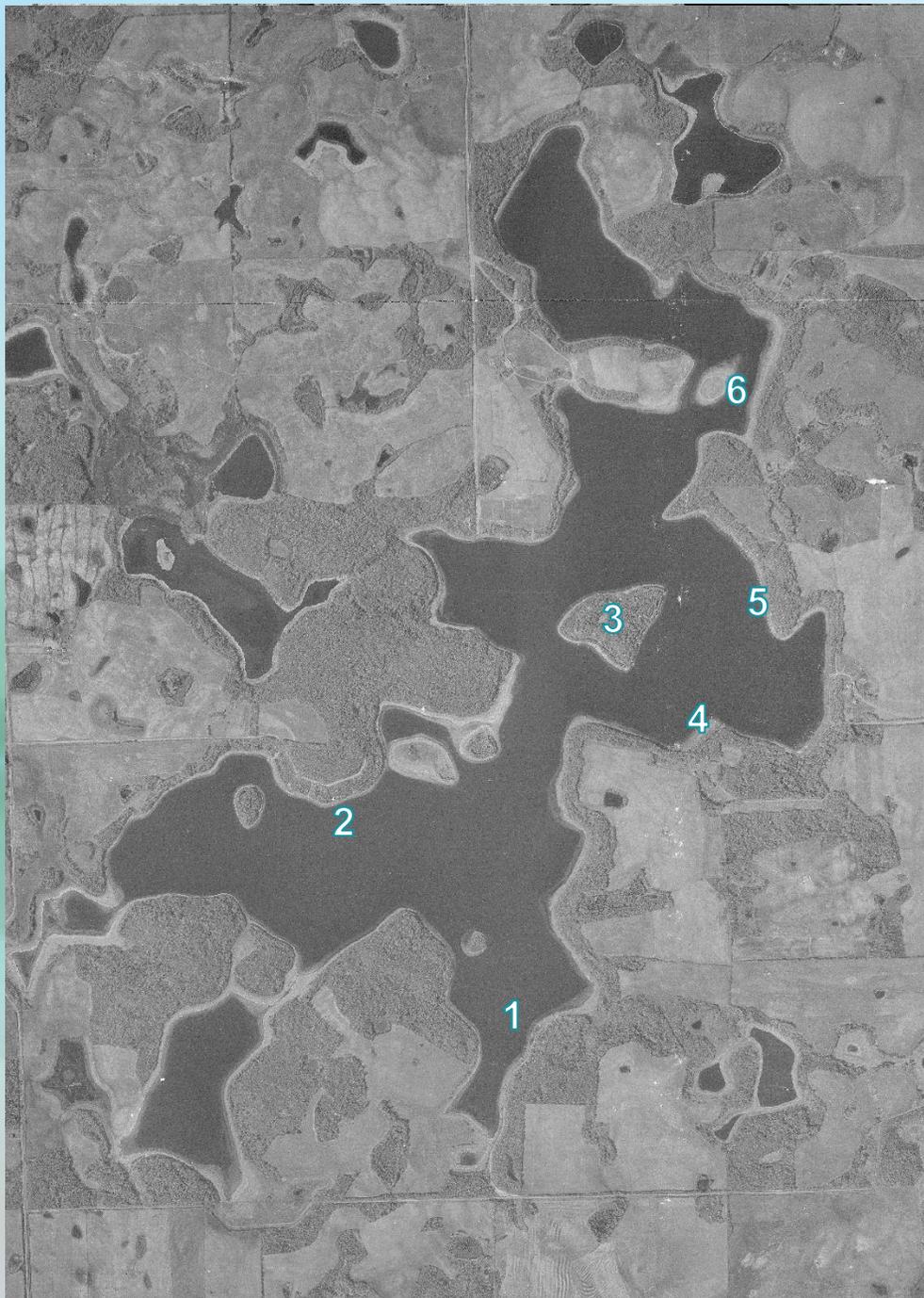
- Blue Glacial Lake Edmonton
- Jackfish/Carvel Pitted Delta
- Southeast of County Aeolian / Dunes
- Jackfish Lake ★



# 1949 Airphoto

Limited lakeshore activity some at:

1. Church Island,
2. Paramac Cove
3. Lutz Property



# 1962 Airphoto

Increased lakeshore development some at:

1. Paramac Cove
2. Kenglened
3. Big Island
4. Evergreen Bay
5. Weekend Estates
6. Edwards Leases



# 1973 Airphoto

Lakeshore development at:

1. Paramac Cove
2. Kenglened
3. Big Island
4. Evergreen Bay
5. Weekend Estates
6. Edwards Leases
7. Stevens Beach
8. Lutz Leases

cent. Between this slope and the shoreline of Jackfish and Mayatan Lakes exists a low topographical area of high water table.

(c) Site Drainage

The site drainage conditions indicated on Dwg. No. JML-1 are the overall drainage conditions for a terrain unit. The hummocky micro-topography occurring within the study area has resulted in a complex drainage pattern of well drained knolls and low areas which exist under poorly drained to perched or permanent high water table conditions.

The overall gently undulating topography is not conducive to the formation of a well developed drainage system. Only one permanent stream channel was observed in the area and this was neither an inlet or outlet for Jackfish or Mayatan Lakes. However, a high density micro-drainage system of discontinuous intermittent drainage channels occurs. This drainage pattern and the low permeability of the surficial soil has resulted in some areas having a high density of localized perched temporary and permanent high water table conditions. The high percentage of cleared land, lack of significant water retention areas and low permeability of the surficial soil result in high peak runoff conditions during and for a short period after spring thaw or heavy rainfall.

The hummocky topography contains numerous kettle holes and topographic depressions, some of which exist as sloughs. Some areas contain a high density of small sloughs which are impractical to delineate at the mapping scale used. In this case, the area was delineated and designated with site drainage and development capability

- 17 -

Developers will be, by agreement, totally responsible for the provision of all necessary utilities, services and local improvements and it is, therefore, most unlikely that isolated development will occur because of excessive front ending expenditures that will be required of the developer. The benefits, if any, of strict staging of development in a rural area are unclear and until some substantial benefit can be established, it will not be a consideration by the County when reviewing development proposals.

**SUMMARY**

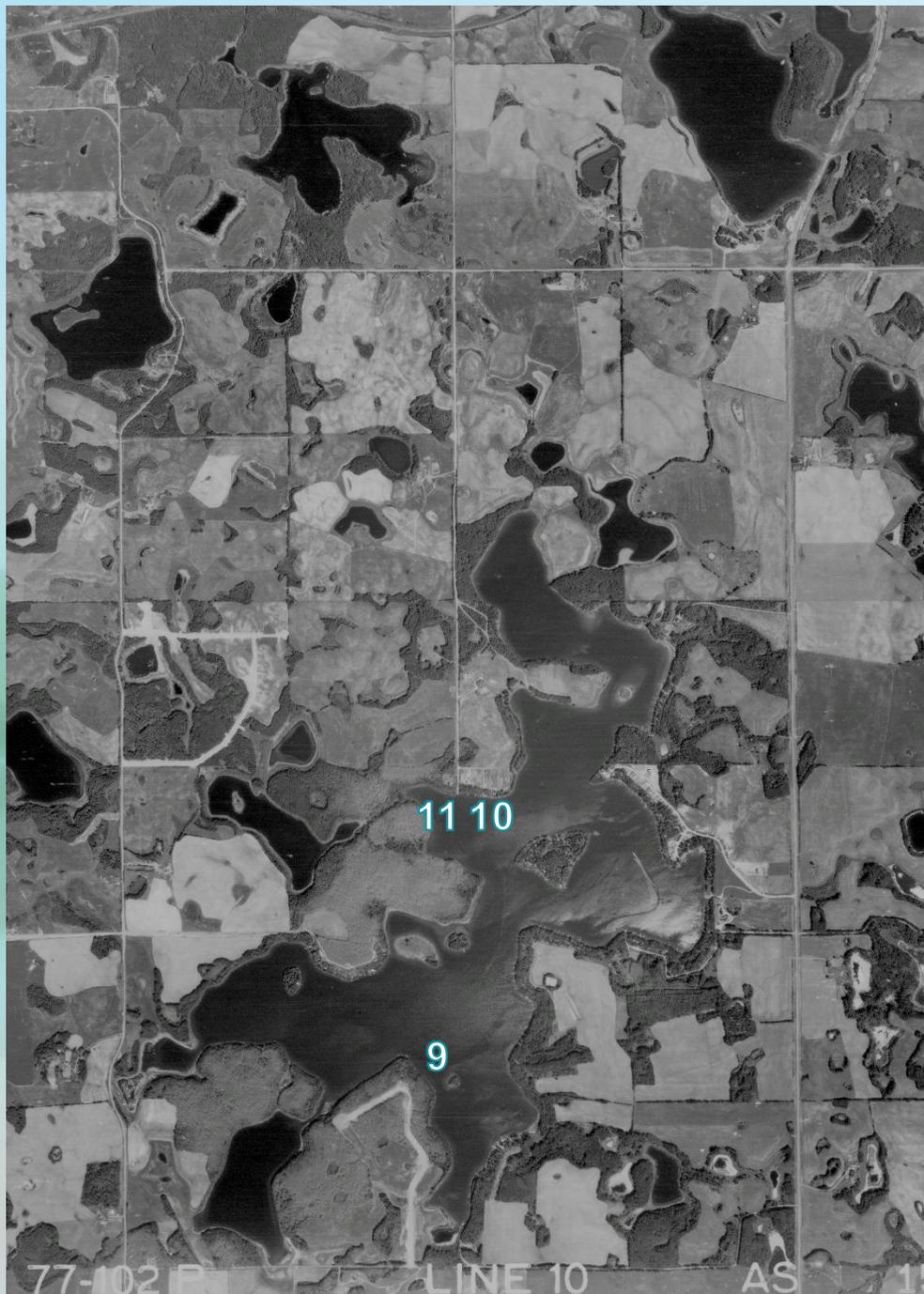
Lifestyles are many and varied throughout the County of Parkland and we endorse and encourage this type of individualism. Not all lifestyles are compatible one with another and the purpose of this document is to provide a framework within which a planned rural community, that is harmonious within itself and compatible with its neighbors, can be developed.

## Bird and Hale Ltd. Development Capability Study For Jackfish and Mayatan Lakes For Alberta Environment 1976 / Page 8

- >15% slopes is a limiting factor, Complex drainage patterns - knob and kettles are a limiting factor

## Jackfish / Mayatan ASP 1981 / Page 17

- Never updated and not referenced in Jackfish Lake ASP



# 1977 Airphoto

Lakeshore development at:

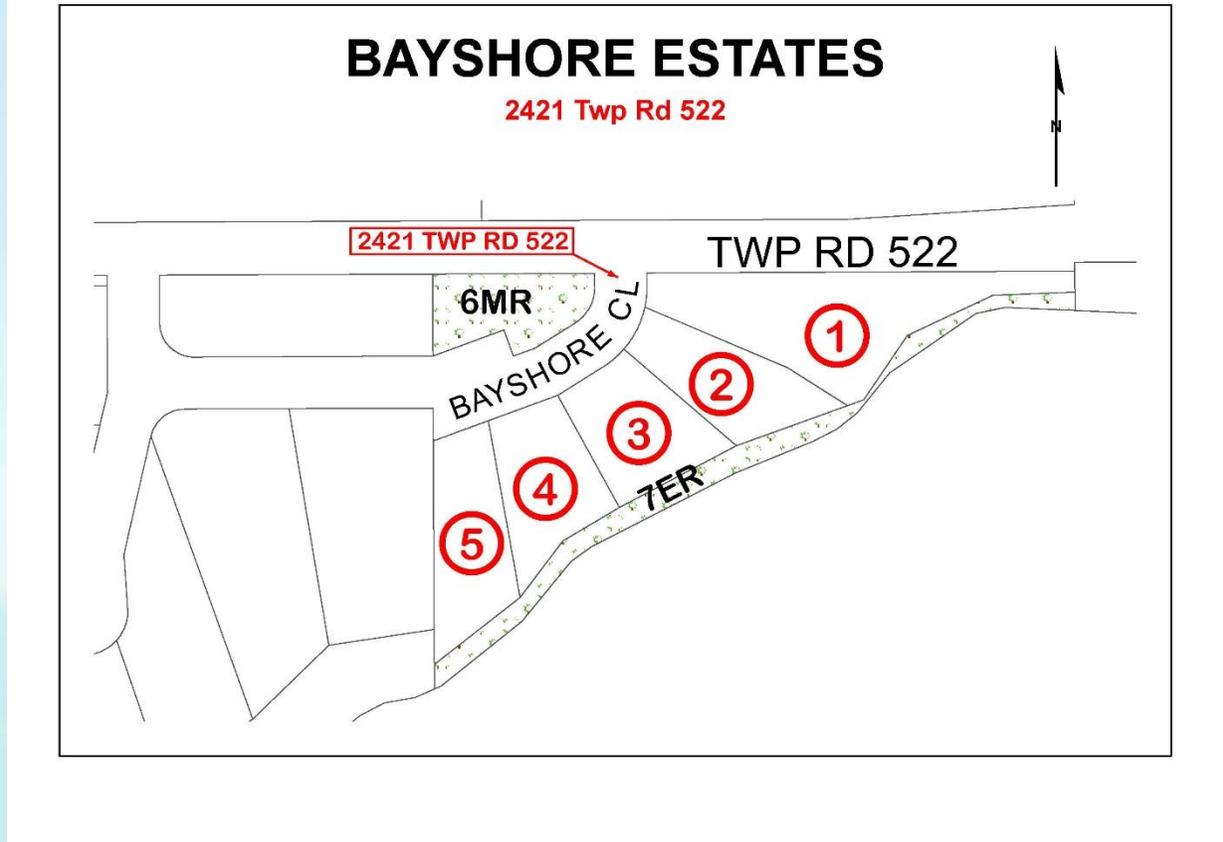
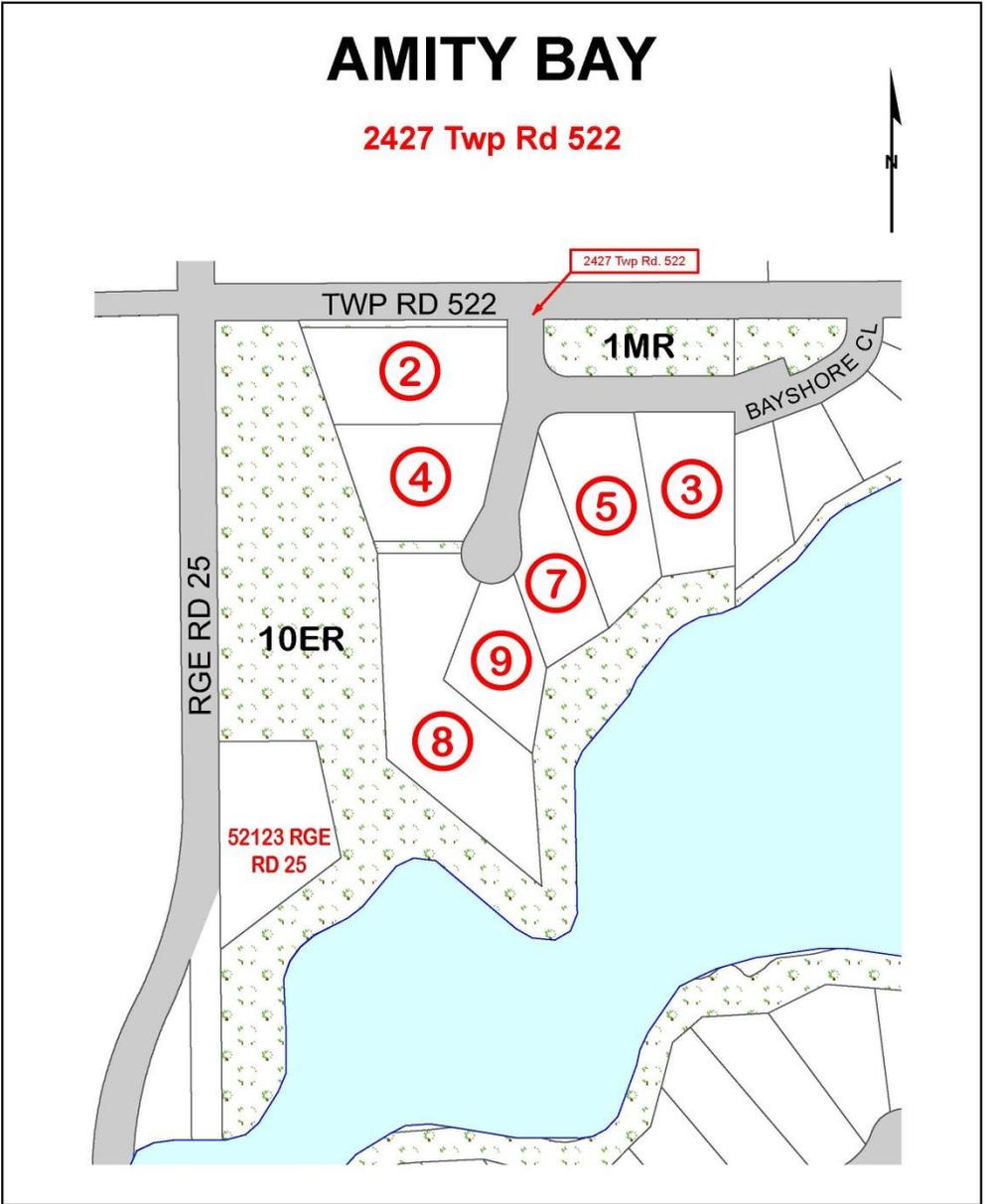
1. Paramac Cove
2. Kenglened
3. Big Island
4. Evergreen Bay
5. Weekend Estates
6. Edwards Leases
7. Stevens Beach
8. Lutz Leases
9. Paramac Point
10. Lake Avenue
11. Lot West of Lake Avenue



# 1987 Airphoto

Lakeshore development at:

1. Paramac Cove now backlots
2. Kenglened
3. Big Island
4. Evergreen Bay
5. Weekend Estates now backlots
6. Edwards Leases
7. Stevens Beach
8. Lutz Leases
9. Paramac Point,
10. Lake Avenue
11. Lot West of Lake Avenue



## 1990's

- Lakeshore subdivisions Bayshore Estates and Amity Bay
- Setting precedent for larger lake front allocations and increased setback reserve

14-52-2-W5	SUBDIVISION, BEACH OR FARM NAME	EXISTING LAKESHORE LOTS	EXISTING BACKSHORE LOTS WITHIN A LAKEFRONT SUBDIVISION	EXISTING LEASED LOTS	EXISTING CAMP SITE AND DAY USE LOTS	TOTAL EXISTING LOTS LIKELY TO HAVE POWER BOATS	ADDITIONAL EXISTING BACKSHORE LOTS WITHIN WATERSHED	TOTAL EXISTING LOTS WITHIN THE WATERSHED	GROSS REMAINING DEVELOPABLE ACREAGE WITHIN WATERSHED	FUTURE LAKESHORE LOTS	FUTURE BACKSHORE LOTS WITHIN A LAKEFRONT SUBDIVISION	TOTAL FUTURE LOTS LIKELY TO HAVE POWER BOATS	ADDITIONAL FUTURE BACKSHORE LOTS WITHIN WATERSHED	TOTAL FUTURE LOTS WITHIN THE WATERSHED	TOTAL EXISTING + FUTURE LOTS LIKELY TO HAVE POWER BOATS	TOTAL EXISTING + FUTURE LOTS WITHIN THE WATERSHED
NE4	Farm	0	0	0	0	0	0	1	10	0	0	0	0	0	0	1
NW4	Farm	0	0	0	0	0	0	1	20	0	0	0	0	0	0	1
NE5	Residential Farm	0	0	0	0	0	0	2	50	0	0	0	0	0	0	2
NW5	Farm	0	0	0	0	0	0	3	50	0	0	0	0	0	0	3
SE7	H. & I. Hohnstein Farm	0	0	0	0	0	0	1	60	0	0	0	0	0	0	1
NE7	G. Hohnstein Farm	0	0	0	0	0	0	1	100	0	0	0	0	0	0	1
SW8	McNabb Farm	2	1	0	0	0	0	3	90	5	4	0	0	0	0	9
NW8	Bayshore	5	0	0	0	0	0	5	0	0	0	0	0	0	0	5
NW6	Amity Bay	6	2	0	0	0	0	8	0	0	0	0	0	0	0	8
NW8	McNabb Campground	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
NE8	Church Island	25	1	0	0	0	0	26	0	0	0	0	0	0	0	27
NE3/SE8	Paramac Point	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
SW9	Paramac Cove	30	7	0	0	0	0	30	100	10	10	0	0	0	0	10
NW9	Luz Farm	0	0	0	0	0	0	0	120	7	5	0	0	0	0	12
NE9	Middle Island	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
SE9	Evergreen Bay	21	0	0	0	0	0	21	140	0	14	0	0	0	0	14
NW10	Farms	0	0	0	0	0	0	3	100	0	0	0	0	0	0	3
NW10	Farm	0	0	0	0	0	0	1	10	0	0	0	0	0	0	1
NW15	Farm	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0
SE3/NE16	Woodland Estates	37	13	0	0	0	0	0	80	0	0	0	0	0	0	80
SW16	Jackfish Lake Island	0	0	35	0	0	0	0	0	0	0	0	0	0	0	35
SW16	Lake Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NW16	Steven Beach	9	1	0	0	0	0	0	0	0	0	0	0	0	0	9
NW16	Steven Lease	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
NEANW17	Edwards Lease	0	0	40	0	0	0	0	120	0	0	0	0	0	0	40
SE17	Lot 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SE17	Lot 2 (30 Acres)	1	0	0	0	0	0	1	30	0	0	0	0	0	0	1
SE17	Lot 3 - Glenwald	1	0	0	0	0	0	1	80	0	0	0	0	0	0	1
SW17	Farm	0	0	0	0	0	0	1	100	0	0	0	0	0	0	1
NW17	Genesee Park	0	0	0	0	0	0	28	0	0	0	0	0	0	0	28
NE17	S. Bonnes Farm	0	0	0	0	0	0	0	150	0	0	0	0	0	0	150
NE18	Territa	0	0	0	0	0	0	7	20	0	0	0	0	0	0	7
NE18	Farm	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
SE19	Star Lake Estates	0	0	0	0	0	0	6	6	0	0	0	0	0	0	6
SW20	Farm	0	0	0	0	0	0	1	150	0	0	0	0	0	0	1
SE20	H. Bucken Farm	0	0	0	0	0	0	5	140	0	0	0	0	0	0	5
NE20	Bogman Estates	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SW21	Western Prof. Inv. Ltd Farm	0	0	0	0	0	0	30	100	0	0	0	0	0	0	30
NW21	Lake Crest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NE21	D. Fuhr	0	0	0	0	0	0	1	140	0	0	0	0	0	0	1
SE21	K. Fuhr Farm	0	0	0	0	0	0	0	130	0	0	0	0	0	0	130
NW22	Farm	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
SE22	Farm	0	0	0	0	0	0	0	30	0	0	0	0	0	0	30
NW22	Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS		171	25	86	95	317	97	414	2430	25	51	76	131	207	393	621



*Jackfish Lake*

**SITUATIONAL ANALYSIS**

JANUARY 1997



PARKLAND County



IBI GROUP

# 1995-1997 ASP

- JLMA Jackfish Lake Management Association incorporated 2004
- Dwyane Shandro and Mike Evans appointed to the Jackfish Lake Area Structure Plan Steering Committee
- Build Out calculations from 1997 – 21 years ago
- ASP Adopted with some changes in 2002

To preserve and enhance the natural environment, wildlife and fish habitats, particularly through the management of any activities which contribute to environmental degradation and watershed and lake contamination.

To promote the protection of fish and wildlife habitats by designating areas of environmental significance.

To consider appropriate (residential) development provided that it does not contribute to the degradation of the lake environment.

To accommodate future development based on the study area's ability to sustain further development.

To maintain high quality recreation experience at Jackfish Lake, as it relates to appropriate densities and concentrations of lake-oriented recreational development.

#### POLICIES

1. To accommodate development with the Plan area, Council of Parkland County may consider an application to amend the Land Use Bylaw to change the districting on a specific parcel(s) of land to the Country Residential Restricted (CRR) district. This land use district provides for low-density country residential development in accordance with the remainder of the provisions of this Plan. Upon proof of development suitability, and upon tentative acceptance of a subdivision or development scenario in keeping with the site's development suitability and the provisions of this plan, Council may re-district the subject lands to the Country Residential Restricted district.
2. There shall be no new development on leased properties that result in the creation of additional "cottage" units beyond the numbers of units existing under past permits.
3. Where replacement units are to be developed on leased lands, the new units shall be required to be bought into conformance with current building standards as well as standards for sewage disposal for cottages.
4. There shall be no new subdivision on lands that fail to meet Alberta Environment's Guidelines for the evaluation of subdivisions. Constraints to subdivision include permanent or temporary high water table, areas subject to flooding, soil instability, topography (slopes greater than 15%), and low ground water availability.
5. Intensive recreation development shall not be permitted within the plan area. Intensive recreation developments are considered to be those that include facility development and/or generate significant, concentrated lake use including but not limited to waterslides, marinas, boat rental facilities, and campgrounds.
6. At the discretion of Parkland County, any new subdivision proposed adjacent to identified environmentally sensitive areas may be subject to environmental

review. (Consideration in the review should be given to the minimum standards for an Environmental Impact Assessment as established by Alberta Environment.

7. Notwithstanding the above policy, proponents of any future new subdivision within the Jackfish Lake study area must demonstrate through detailed site analyses development suitability along with any required mitigation measures to ameliorate identified environmental impacts associated with said development.
8. New development shall be developed at a maximum density of 1 residential parcel per 3 acres of developable land. This may be achieved with a minimum parcel area of 3 acres or through the use of lots of as little as 1 acre in size and subject to the transfer of development densities within existing quarter sections and large parcels. Lands remaining after a transfer of development densities shall be dedicated to the municipality as either municipal or environmental reserve, depending on the characteristics of the lands in question.
9. The minimum mean parcel width for a 1 acre parcel shall be 30 meters. The minimum mean parcel width for a 3 acre parcel shall be 60 meters.
10. The irregular nature of the Jackfish Lake shoreline works against the imposition of a conceptual subdivision standard, such as cluster design over linear design. Given the irregular shoreline, as subdivisions are applied for on specific parcels of land, a proposed subdivision design will be evaluated in relation to the characteristics of the shoreline of the subject parcel, with the intention of creating as large an environmental reserve parcel as practically possible to provide the necessary buffer between lots to be subdivided and the lake. At the time of subdivision a minimum 30 meter environmental reserve shall be dedicated between the lake and any newly created parcel.

#### SUMMARY

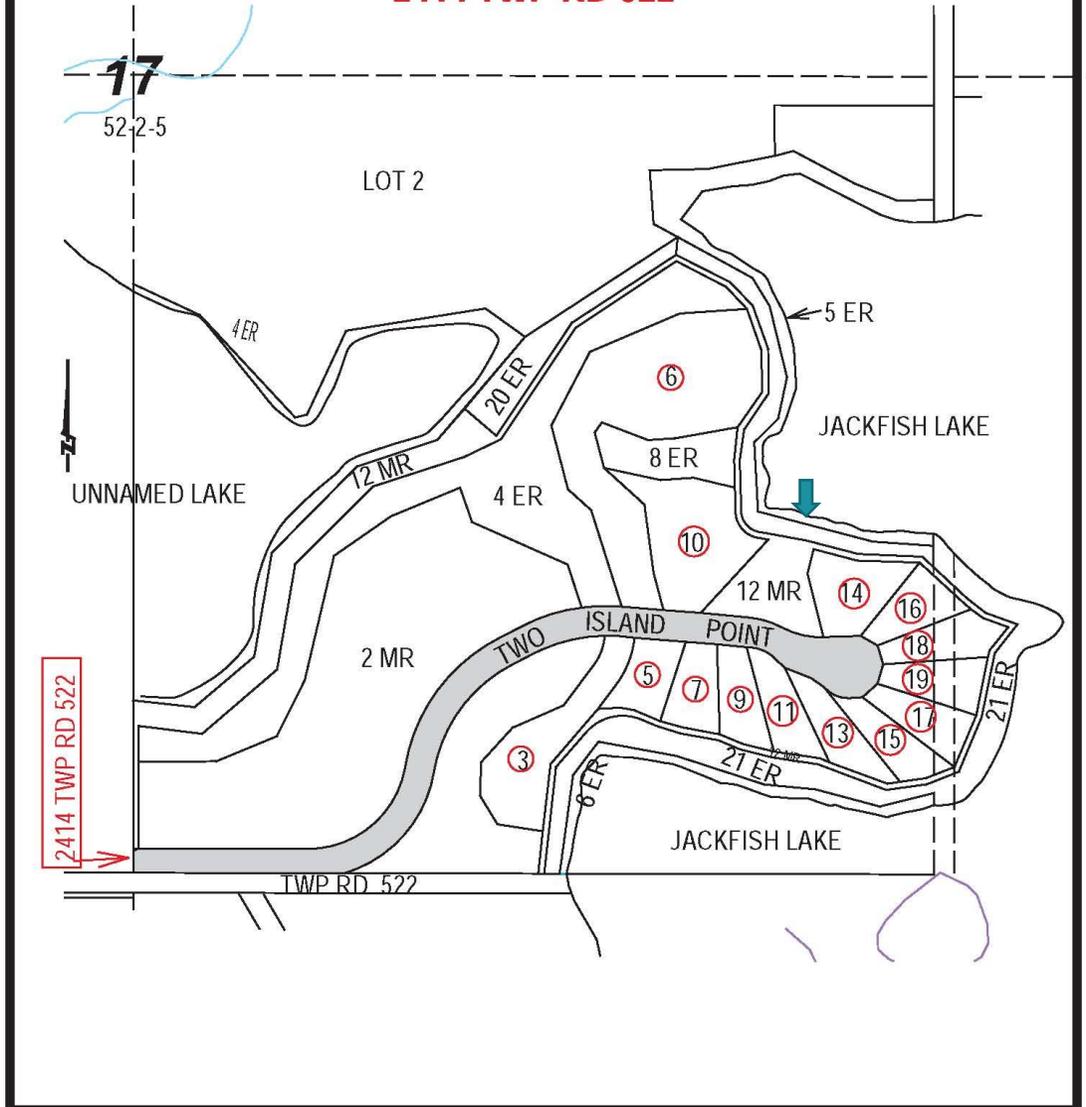
There is continual pressure for additional development adjacent to Lakes. This pressure is likely to increase significantly as undeveloped land around lakes becomes scarcer and the population continues to increase. Because of its proximity to the city and its quality, Jackfish Lake will continue to experience some of the strongest of these pressures.

Although it is recognized, by most measurable standards, that Jackfish Lake has reached its boating capacity, it may not be reasonable to close the entire planning area to all additional development. Rather, it may be more reasonable to find a way to allow some additional development in a way that is likely to have a minimal additional environmental and recreational effect on the lake. It is suggested through this plan that low density residential development that is properly designed is the best way to minimize overall impact on the lake, while continuing to offer development opportunities to existing and future land owners.

# 2002 Area Structure Plan Pages 21 + 22

## TWO ISLAND POINT

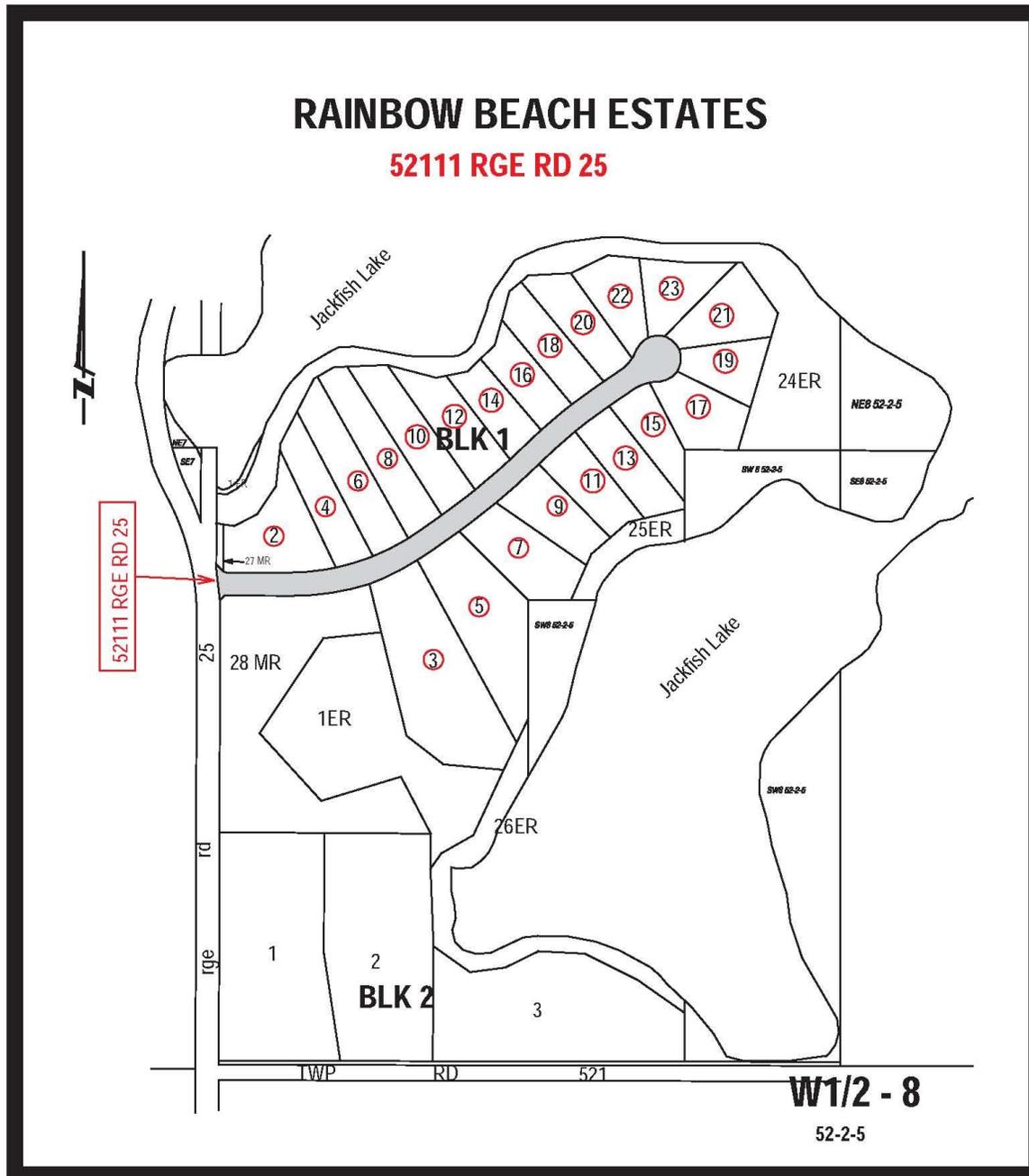
2414 TWP RD 522



# 1998 TWO ISLAND POINT

- Started with submissions of about 23 lakeshore lots and 14 were finally approved
- In excess of 30 m ER setbacks and additional 12 MR for community trail
- Marketed as one communal dock 12 MR between Lots 10 and 14 ↓
- Restrictive covenants not effective

# 2002 RAINBOW BEACH ESTATES



- 24 Lakeshore lots and one back lot Lot 1 Block 2
- Substantial ER setbacks
- 1ER Block 1 is for storm water management
- Block 2 Lots 1, 2 + 3 cannot be re-subdivided

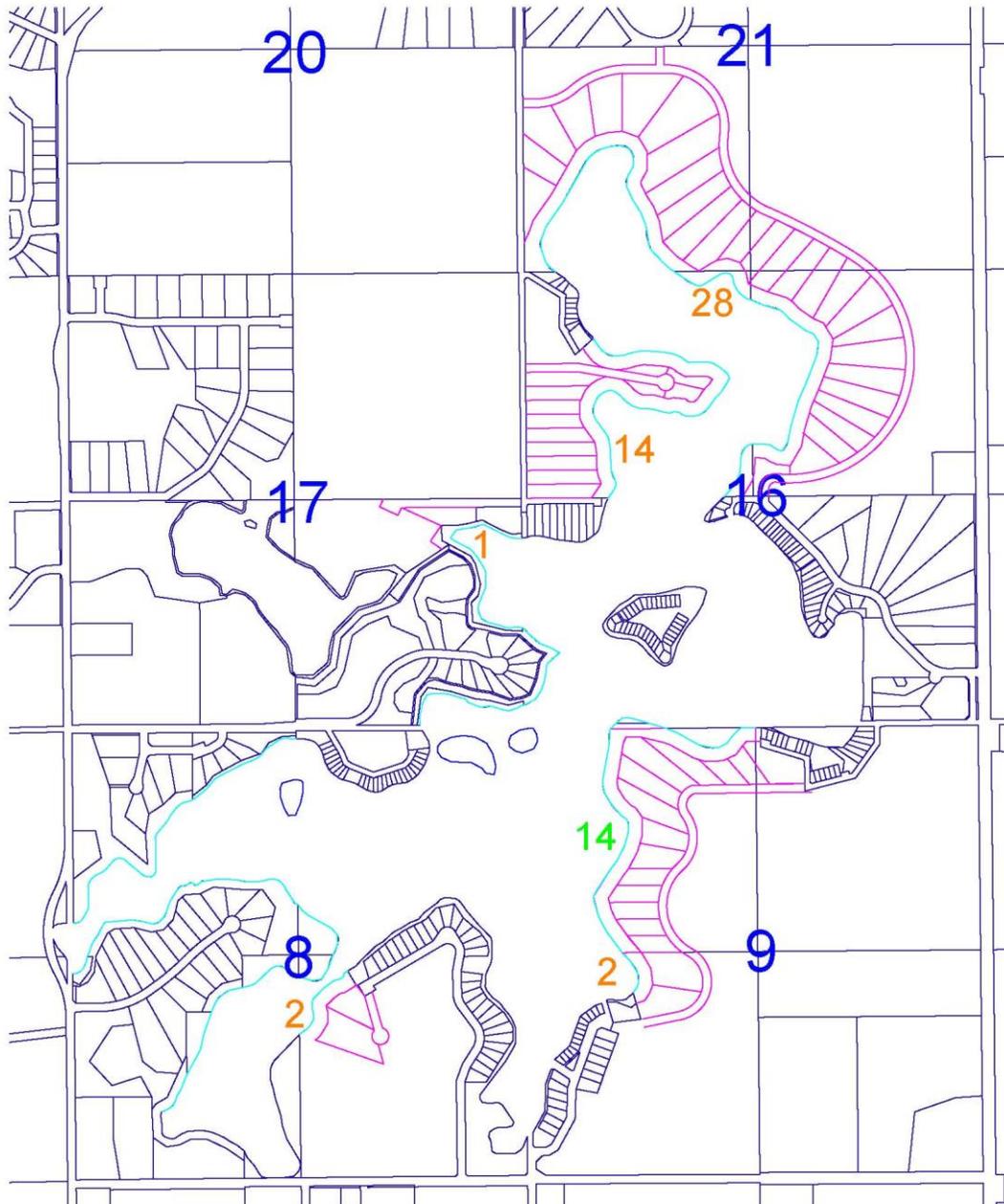
# 2005 Airphoto

Lakeshore development at:

1. Paramac Cove now backlots
2. Kenglened
3. Big Island
4. Evergreen Bay
5. Weekend Estates now backlots
6. Edwards Leases
7. Stevens Beach
8. Lutz Leases have been removed
9. Paramac Point
10. Lake Avenue
11. 2 Lots West of Lake Avenue
12. Bayshore Estates
13. Amity Bay
14. Two Island Point
15. The Farm Eh
16. Rainbow Beach Estates







# 2018

- Lakeshore lots based on length of shoreline of 103 m/lot
- Build out total is **62** new lots with **14** at West Point Estates

# Jackfish Lake/Star Lake Complex ESA



## Jackfish Lake/Star Lake Complex ESA

**Site Location:** This ESA is a complex of lakes situated east of the Wabamun Indian Reserve and can be accessed south of Highway 16 off of Highway 770.

**Area:** 868.32 ha

**Description:**

The Jackfish/Star Lake Complex ESA is comprised of several small lakes and wetlands, as well as connecting habitat areas and a 100 meter precautionary planning buffer around the lakes—a measure designed to promote careful planning and management of fragile riparian areas<sup>1</sup>. Some water bodies are surrounded by natural stands of aspen, poplar, and small pockets of spruce. Agriculture is the dominant surrounding land use.

**Jackfish Lake:** This 239 ha lake is situated in a depression typical of pitted delta and has an irregular shoreline with islands throughout. The water level is regulated by a fixed-crest weir, but on average has an 8.2 million m<sup>3</sup> capacity with a mean depth of 3.4 m. The contributing drainage basin is about 1,260 ha; however, groundwater inputs are still very important. Water quality analyses have determined that this lake is in good mesotrophic condition, but macrophyte growth still tends to be a concern. Residents have noted the uniquely high water quality of the lake complex. Protecting area water quality is of utmost concern to residents.

Small hills and hillocks occur near the lake, and several small intermittent lakes are found on the east and west sides. The south and west sides of the lake are partially forested and diverse wetlands are present at the southwest end. The lake is a staging/ breeding area for waterfowl, and uplands are good for hiking and wildlife viewing (ungulates, songbirds). Islands within the lakes are noted to be significant habitat areas for geese and other bird species. A great blue heron colony occupies one of these islands in the northern portion of Jackfish Lake.

<sup>1</sup> All lake ESAs in the County include a 100 m buffer from the shoreline. This buffered area is not to be interpreted as a development restriction zone, but rather, a precautionary planning zone in which development must be met with extreme care for the conservation of riparian environments.

2014

**JACKFISH/STAR LAKE COMPLEX ESA**

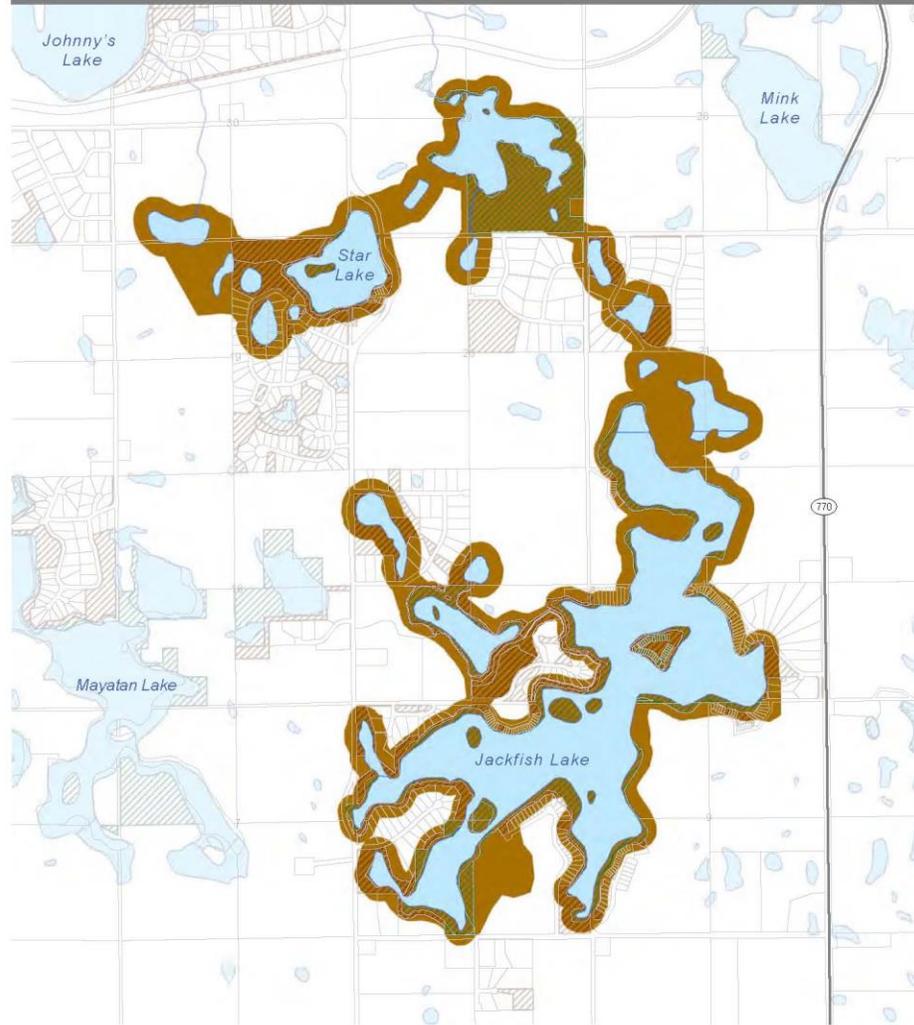
**SIGNIFICANCE:** Regional

Production and staging area for waterfowl and shorebirds

- Species + Habitats
- Landscape Ecology
- Wetlands
- Landforms
- Groundwater Resources
- Surface Water Resources
- Protected Areas



## JACKFISH LAKE / STAR LAKE COMPLEX ESA



0 150 300 600 900 1,200  
Metres

**ESA Significance**

- International
- National
- Provincial
- Regional
- Local

**Land Ownership**

- Provincially Owned Lands
- Municipal Conservation Areas
- Lands Owned/Managed by Conservation Organizations

**Boundaries**

- County Boundary
- Parcel Boundary
- Municipal Boundary
- First Nations Reserve

**Other Features**

- Hydrography
- Highway

Date Saved: 07/01/2014  
Document Path: N:\Projects\130708 Parkland County - Environmental Conservation Master Plan - Policy Update\05 - Data\MXD\ESA Maps\Individual ESA Map Sheets\Jackfish\_Lake\_Star\_Lake\_Complex\_20131205.mxd

## Jackfish Lake/Star Lake Complex ESA

### Recommended Planning Strategies:

- Development applications within the ASP boundary should include a detailed biophysical inventory and environmental assessment
- Limit and enforce OHV (Off Highway Vehicle) use in and around the ESA in order to minimize erosion and sediment loading into the lake
- The Jackfish Lake ASP limits the boat launch facility to 23 parking stalls, overall limiting boat launch and use on the lake. Parkland County will continue to enforce the use of the boat launch area.
- Land owners and agricultural operators are encouraged to take advantage of County best management practice programs such as ALUS (Alternative Land Use Services) to enhance riparian vegetation and protect creeks and water bodies
- Fisheries restrictions are in place for Jackfish Lake through Fish and Wildlife division of AESRD; all walleye must be released and any northern pike / jackfish under 63 cm must be released to sustain the lake's breeding population
- The County-owned parking lot for the day-use area may be an excellent location for a Low Impact Development stormwater management initiative to filter runoff emanating from the parking lot. This effort would improve water quality while setting an example for good watershed stewardship for the community and visitors
- Limits to future subdivision development adjacent to the lakes should be considered to minimize impacts to surface and groundwater resources
- Boat speed limits fall under the purview of Transport Canada with the Federal Government responsible for enforcement.
- Prohibit residential fertilizer use in the ESA boundary area. Increase education and (where necessary) enforcement for non-compliance.
- Reduce pollution impacts from private sewage / wastewater systems through enforcement
- Prohibit clearing and sand dumping of riparian and shoreline areas in all lake ESA
- Require additional environmental assessments (i.e. use of Riparian Setback Matrix model, environmental assessment studies) for proposed developments within 100 meters of the lake. Negative environmental assessments would require significant development alterations or would be disallowed from future development.
- Continue to enforce all policies in the Jackfish Lake Area Structure Plan

## Executive Summary

The purpose of this report is to consolidate environmental information on Jackfish Lake and its watershed in an effort to support future planning and management discussions. The report provides perspective on current environmental conditions at the lake relative to regional and historic trends. The report is provided as advice to the Jackfish Lake Management Association (JLMA), Alberta Environment and Parks, and Parkland County.

The technical information contained in this document is detailed and addresses many lake and watershed features. Jackfish Lake has been under significant development and recreational pressure for many decades; these factors have impacted certain components of the lake ecosystem. In addition, climate patterns have contributed to long-term water level declines at Jackfish Lake and other small lakes in the region; current levels are the lowest recorded for the past half century.

Water quality conditions in Jackfish Lake have remained reasonable over the years. However, a blue green algal advisory was issued by Alberta Health Services during summer 2015, and a significant fish kill occurred during winter 2016. These recent events are likely a direct response to the low lake levels.

The Jackfish Lake community is encouraged to support sustainable residential and development practices in the watershed, improve the management of boat traffic, begin the rehabilitation of damaged riparian zones and consider other restoration needs. The condition of the lake has deteriorated in recent years; action is required to prevent further degradation and to protect the lake for future generations.

Collaboration with key partners, including Parkland County, Alberta Environment and Parks, and the North Saskatchewan Watershed Alliance is recommended to address the diversity of issues at the lake. The ongoing collection of lake water quality data is also recommended, either through the LakeWatch program (ALMS) or by the Government of Alberta.

# 2016 SOW

- Prepared over 3 years with financial assistance and volunteer efforts by JLMA
- Has this been adopted by Council?
- Next Steps?

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# 2016 WABAMUN LAKE SUBWATERSHED LAND USE PLAN

- JLMA members were in attendance at every open house and were anxiously tracking the toolkit portion of the study to be able to be **DIRECTLY** applied to other lakes in the County
- The management practices pages 22 to 46 although current are more generic than specific in nature
- **Jackfish Lake needs it's own Watershed Land Use Plan**

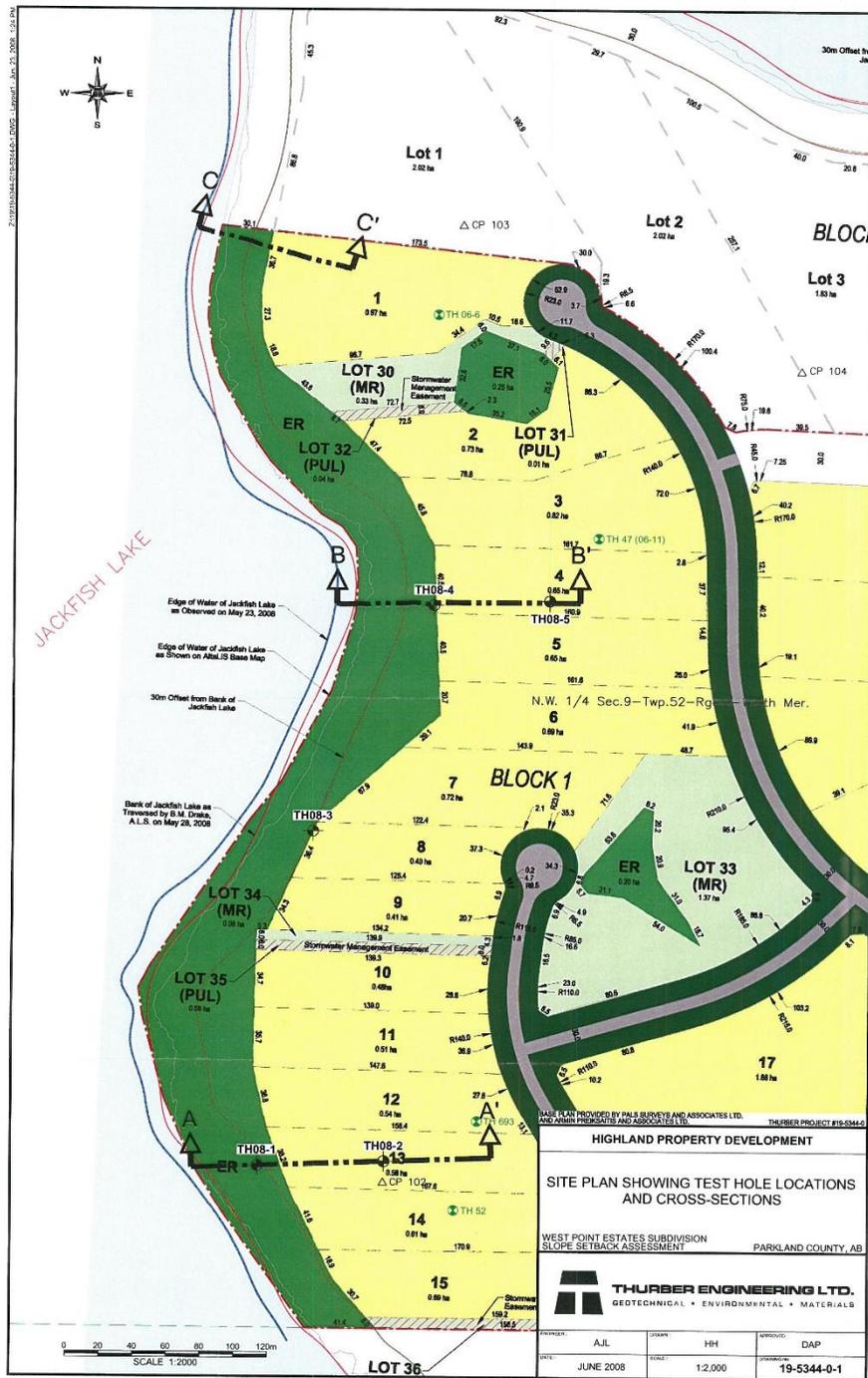


Figure 1 – Locations where possible unstable slope

2008-16

Geotechnical Study by Thurber Engineering Ltd.

## 6. GEOTECHNICAL RECOMMENDATIONS

### 6.1 Site Preparation, Grading, and General Fill Placement

Site preparation will include the removal of all remaining topsoil, organic soils and all unsuitable materials under roadways and development areas.

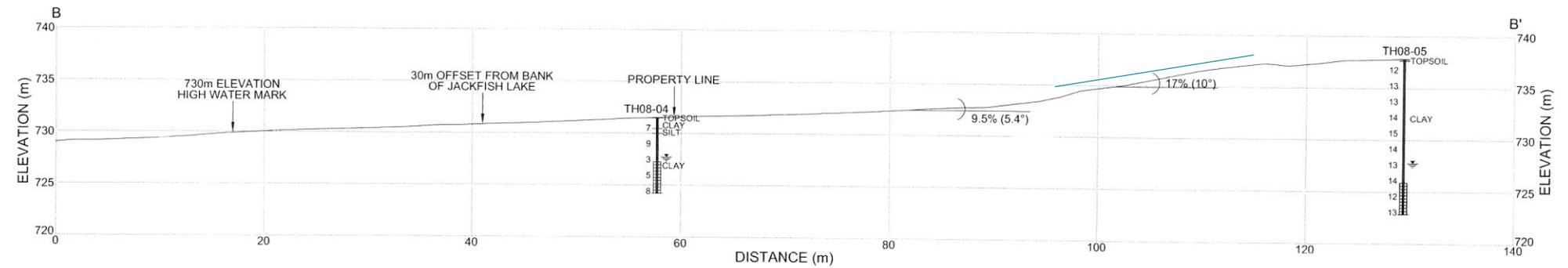
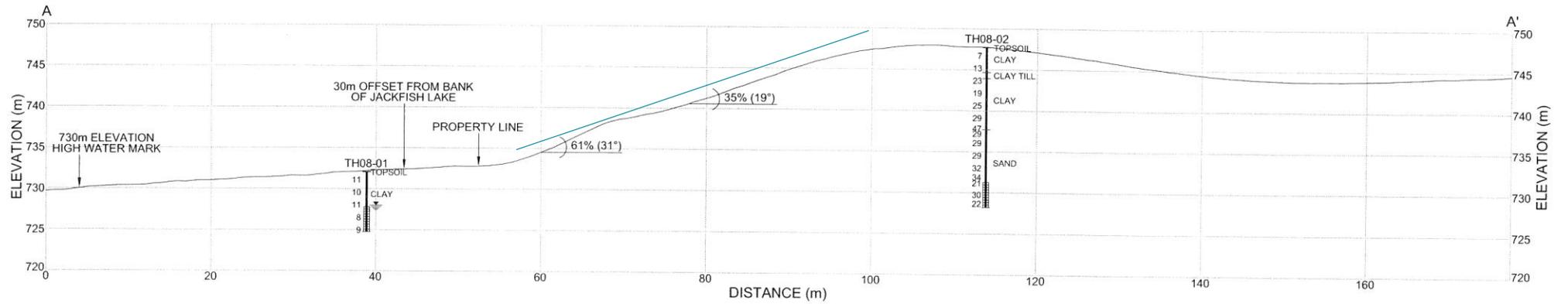
Geotechnical site inspections are recommended during subgrade preparation to identify suitable on-site fill materials and to confirm the subgrade quality. Proofrolling should be undertaken to identify soft areas requiring additional work. Scarification and recompaction is typically required to achieve a suitable subgrade. Where soft or weak soils are encountered, removal and replacement or additional soil stabilization measures may need to be undertaken. A geotextile and/or geogrid may be required to provide separation and reinforcement in areas of weak subgrade soils. The sub-cut depths, where required, should be decided in the field by qualified geotechnical personnel at the time of grading. Alternatively, wet or weak soils may be modified with cement (in the order of 5 percent by dry mass).

Engineered fill, if required to raise the site within the building footprint, should preferably consist of low to medium plastic clay fill or imported granular material. The uniformity and compaction

Client: Highland Property Development Ltd.  
File: 10602  
e-file: WH10602 rpt - Edm

Date: June 21, 2016  
Page: 6 of 22

<b>THURBER ENGINEERING LTD.</b> GEOTECHNICAL • ENVIRONMENTAL • MATERIALS			
OWNER:	AJL	DATE:	JUNE 2008
DESIGNER:	HH	SCALE:	1:2,000
APPROVED:	DAP	PROJECT NO.:	19-5344-0-1



**LEGEND**

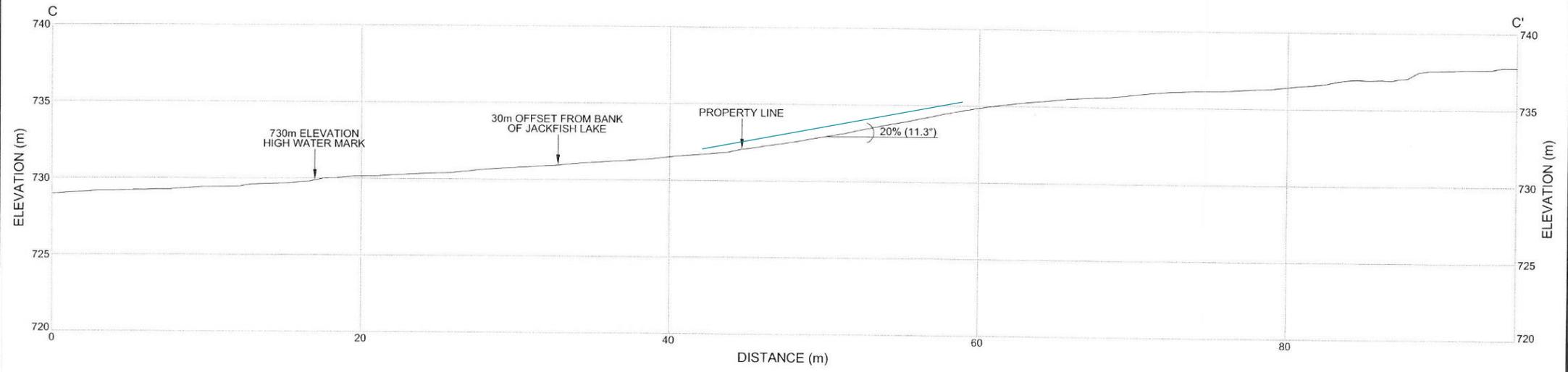
- SPT N VALUE
- WATER LEVEL IN HOLE AT END OF DRILLING
- WATER LEVEL IN PIEZOMETER
- STANDPIPE PIEZOMETER SCREENED INTERVAL

**NOTE**

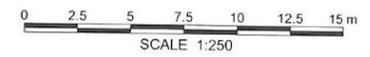
DATA CONCERNING THE VARIOUS STRATA HAVE BEEN OBTAINED AT THE TEST HOLE LOCATIONS ONLY. THE SOIL STRATIGRAPHY BETWEEN TEST HOLES HAS BEEN INFERRED FROM GEOLOGICAL EVIDENCE AND SO MAY VARY FROM THAT SHOWN.

<b>HIGHLAND PROPERTY DEVELOPMENT</b>		THURBER PROJECT #19-5344-0	
<b>STRATIGRAPHY CROSS-SECTION A-A' &amp; B-B'</b>		<b>THURBER ENGINEERING LTD.</b> GEOTECHNICAL • ENVIRONMENTAL • MATERIALS	
ENGINEER:	AJL	DRAWN:	HH
DATE:	JUNE 2008	APPROVED:	DAP
SCALE:	AS SHOWN	DRAWING No:	19-5344-0-2
WEST POINT ESTATES SUBDIVISION SLOPE SETBACK ASSESSMENT		PARKLAND COUNTY, AB	

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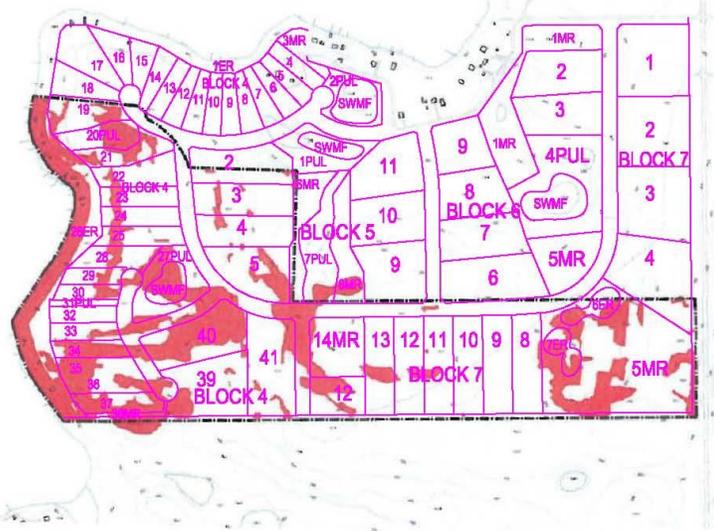
SECTION C-C'



THURBER PROJECT #19-5344-0

<b>HIGHLAND PROPERTY DEVELOPMENT</b>		 <b>THURBER ENGINEERING LTD.</b> GEOTECHNICAL • ENVIRONMENTAL • MATERIALS			
<b>STRATIGRAPHY CROSS-SECTION C-C'</b>					
ENGINEER:	AJL	DRAWN:	HH	APPROVED:	DAP
DATE:	JUNE 2008	SCALE:	HORIZ.--1:250 VERT.--1:250	DRAWING No:	<b>19-5344-0-3</b>
WEST POINT ESTATES SUBDIVISION SLOPE SETBACK ASSESSMENT		PARKLAND COUNTY, AB			

Figure 2.1 – Primary Conservation Areas

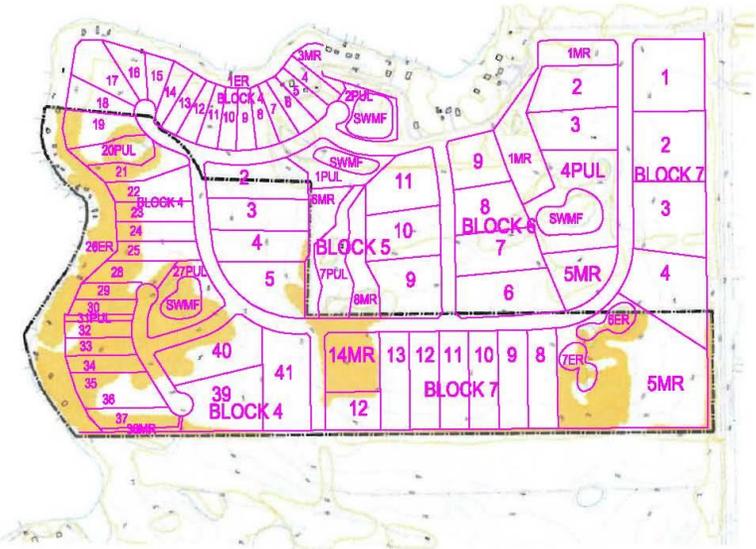


Primary Conservation Areas include:

- the required 30 metre (74 ft) setback from the historical high water mark of Jackfish Lake
- wetland areas, as identified in the Biophysical Site Assessment
- slopes in excess of 15%, as identified from a review of air photography and topographic information

*Note: The extents of these areas have been defined from preliminary air photograph and topographic analysis, a detailed site survey of the Outline Plan area is required to accurately establish topographic information. This topographic survey will be conducted at the subdivision stage. Areas determined to contain slopes in excess of 15% will be subject to a geotechnical review prior to registration of lots, as a condition of subdivision approval, to prove the stability of the slope areas and identify any setback requirements or other recommendations for development.*

Figure 2.2 – Secondary Conservation Areas



Secondary Conservation Areas include:

- treed areas, as identified from a review of air photography and topographic information

*Note: The extents of these areas have been defined from preliminary air photograph and topographic analysis, a detailed site survey of the Outline Plan area is required to accurately establish topographic information. This topographic survey will be conducted at the subdivision stage. Through the use of restrictive covenants, registered against the titles of the future lots, tree clearing in these areas can be restricted.*

Figure 2.3 – Potential Development Areas

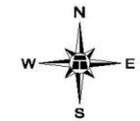
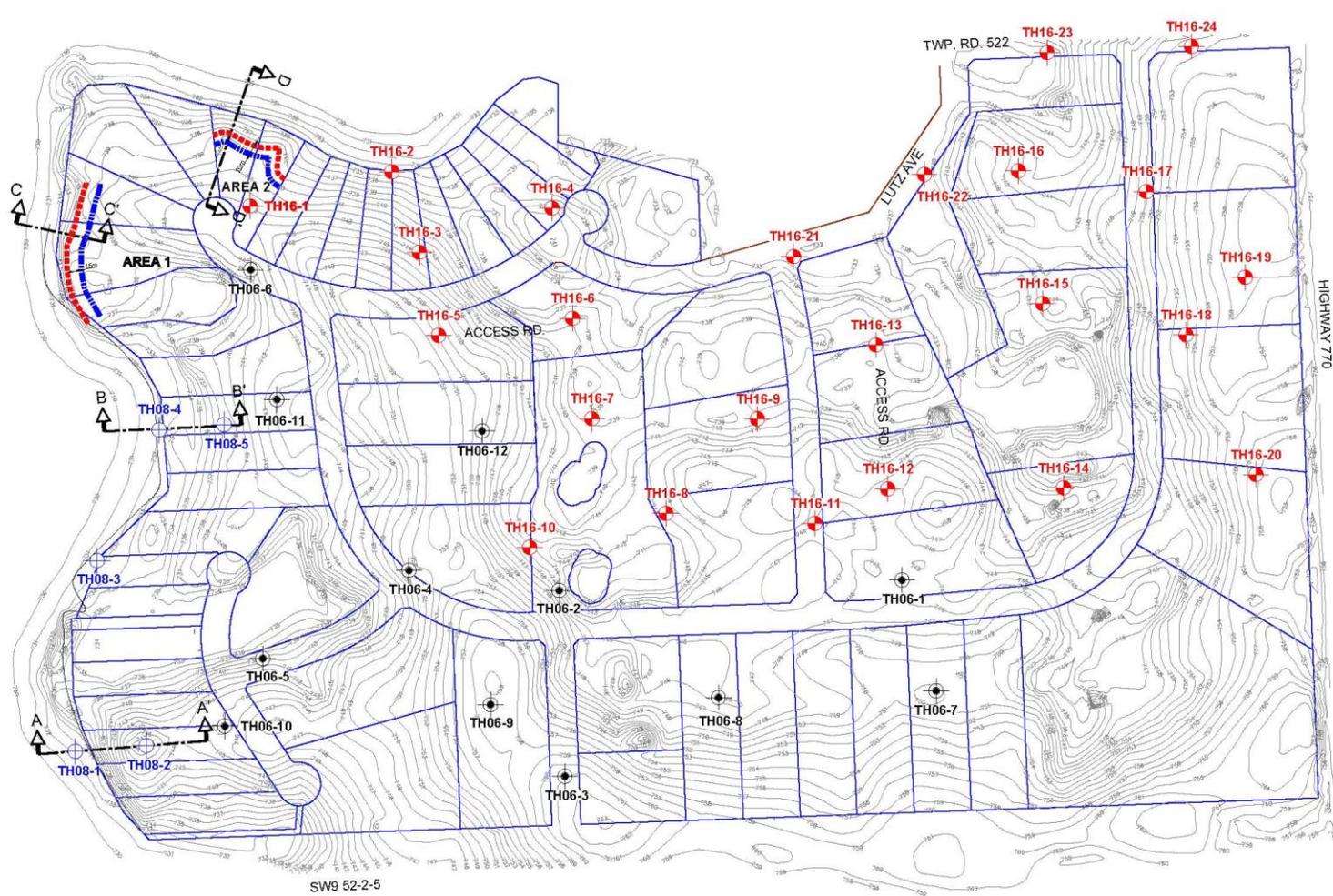


# 2008

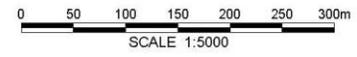
- Site Assessment showing potential development areas for south Outline Plan now with overall Outline Plan shown

Potential Development Areas include:

- areas not contained within primary and secondary conservation areas, where feasible
- in order to accommodate development, some clearing and grading is required



- LEGEND**
- APPROXIMATE TEST HOLE LOCATION (THURBER 2016)
  - APPROXIMATE TEST HOLE LOCATION (THURBER 2008)
  - APPROXIMATE TEST HOLE LOCATION (THURBER 2006)
  - GROUND SURFACE CONTOURS (1m INTERVAL)
  - IDENTIFIED TOP OF BANK
  - STRUCTURAL DEVELOPMENT SETBACK LINE



**HIGHLAND PROPERTY DEVELOPMENT LTD.**

**WEST POINT ESTATES SUBDIVISION (NORTH AND SOUTH SITES)**

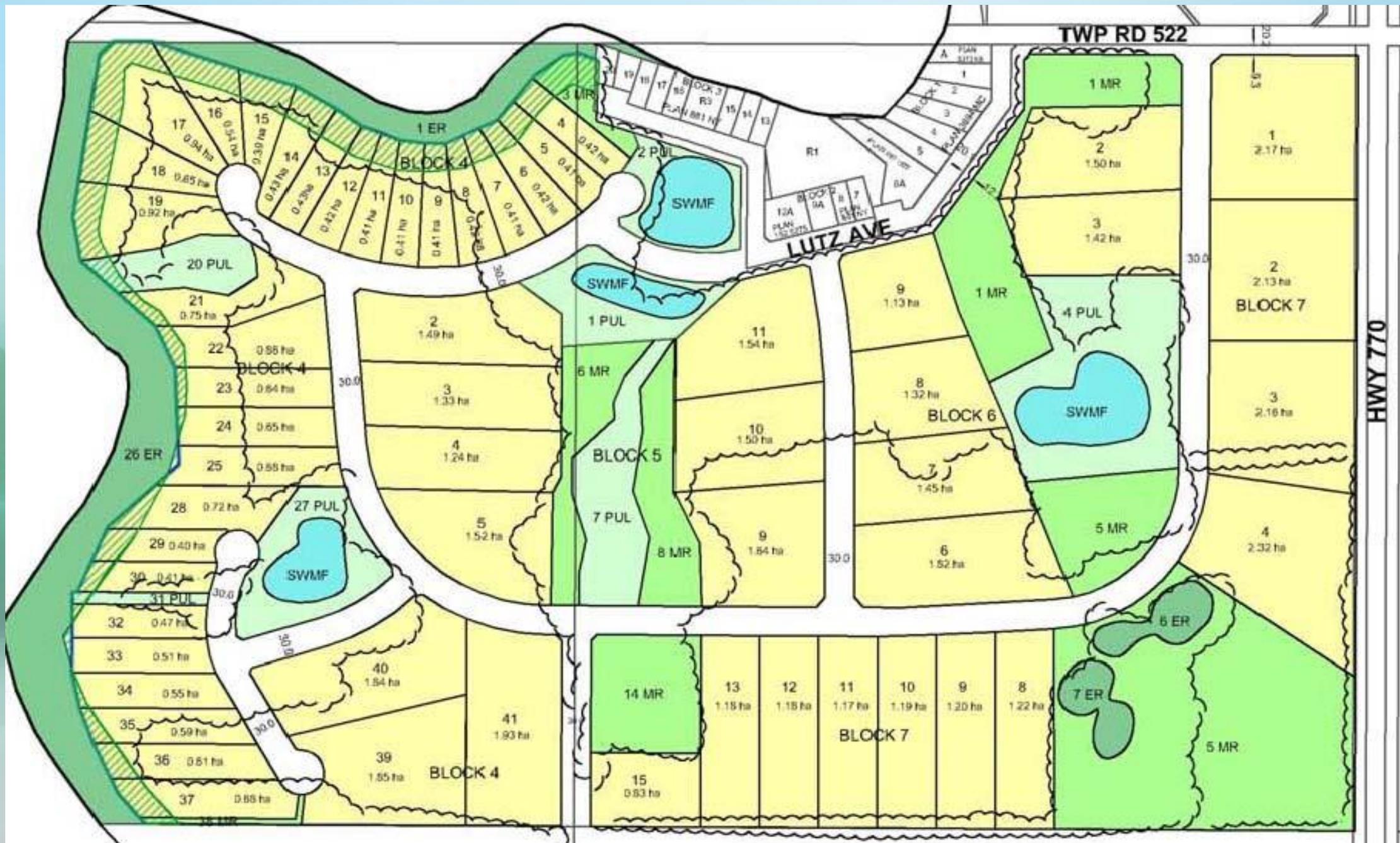
**SITE PLAN SHOWING APPROXIMATE TEST HOLE, CROSS - SECTION LOCATIONS AND DEVELOPMENT SETBACK LINES**

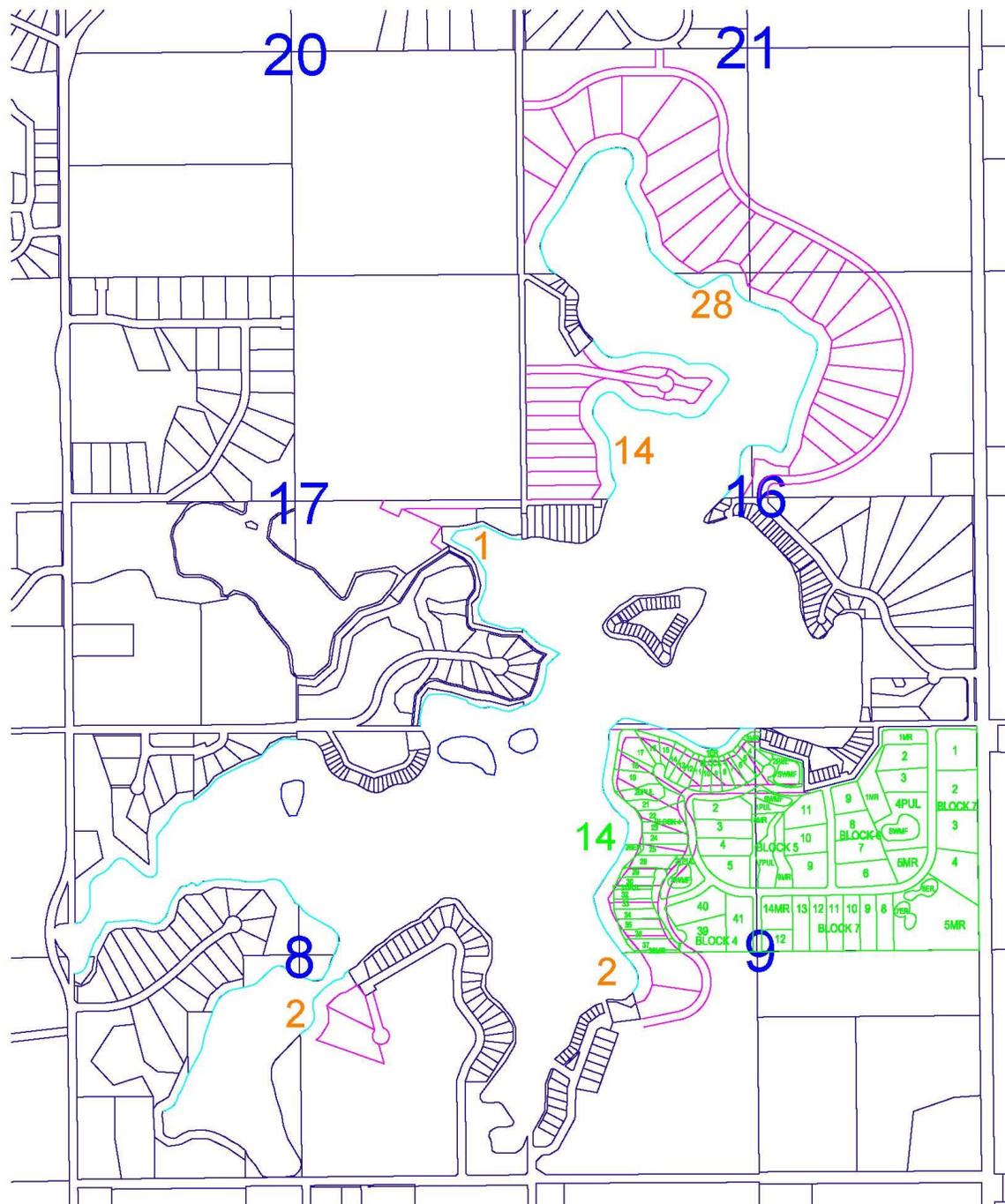
DWG No. 10602-A

DRAWN BY	ML
DESIGNED BY	SEC
APPROVED BY	RVC
SCALE	APPROX. 1:5000
DATE	FEBRUARY 2017
FILE NO.	10602

**THURBER ENGINEERING LTD.**

SW9 52-2-5



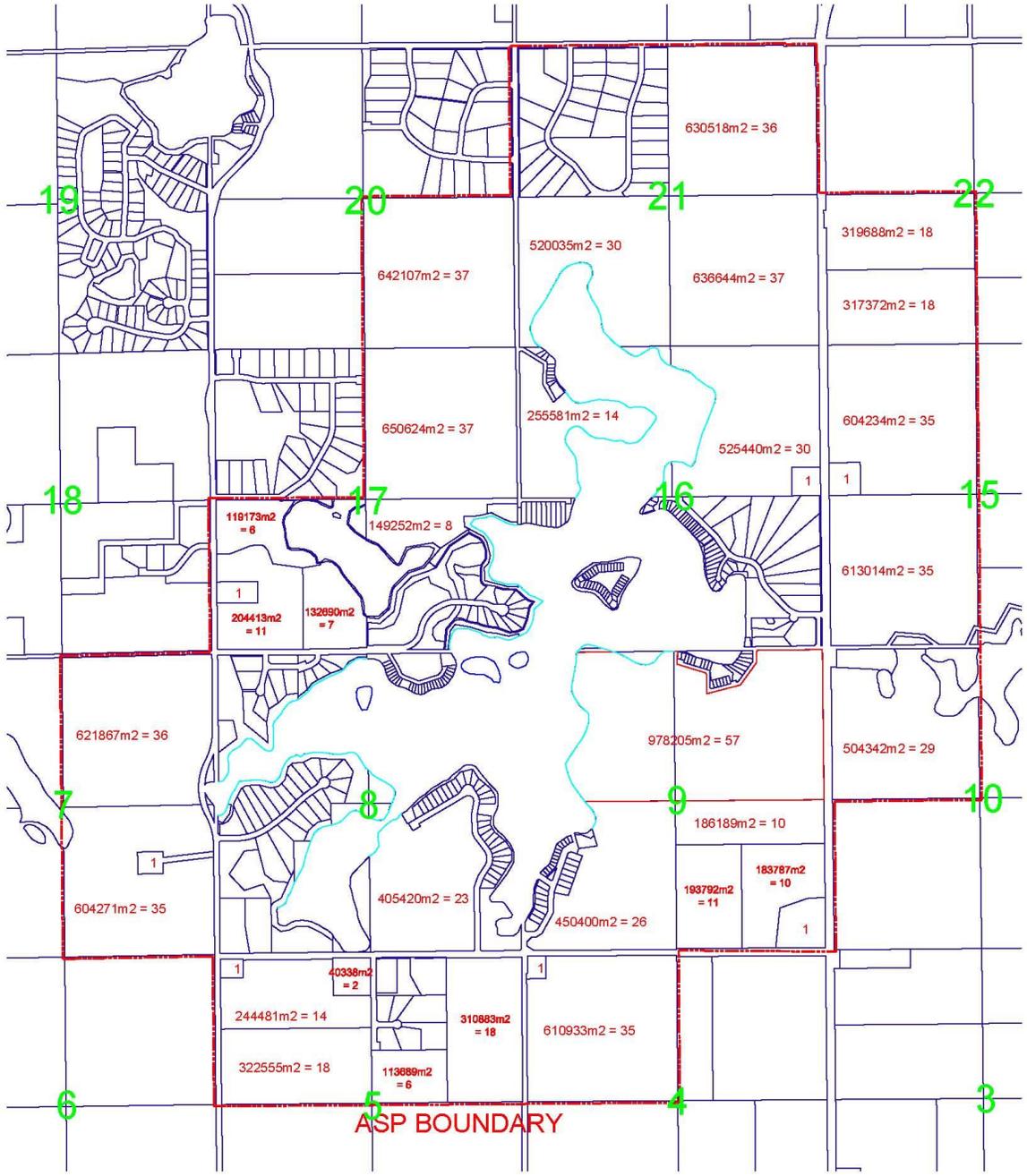


# FUTURE BUILD - OUT

- 14 New Lakefront Lots Versus 30 New Lakefront Lots for West Point Subdivision?

# FUTURE BUILD-OUT

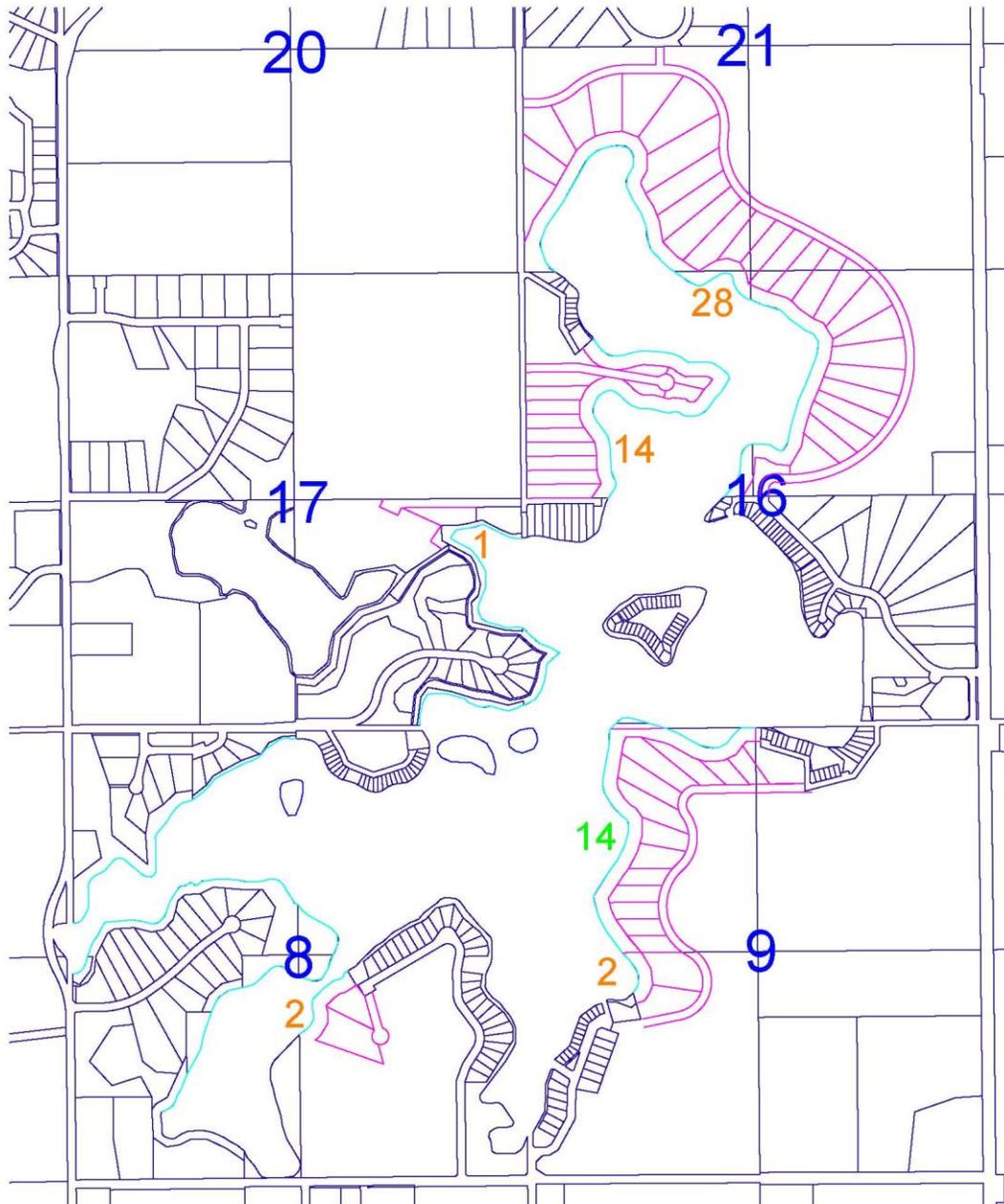
➤ 57 Lots for West Point now becomes the new precedent for the Area Structure Plan and will result in **1,011** total lots



TOWNSHIP 52-2-W5 JACKFISH LAKE ASP	2018 EXISTING LOTS NO MR + ER	FUTURE LOTS TOTAL NO MR + ER
NW 4	2	36
NE 5 TRANQUILITY HILLS	11	32
NW 5	4	35
SE 7	2	36
NW 7	3	37
SW 8 + NW 8 RAINBOW BEACH ESTATES	25	25
NW 8 AMITY BAY + BAYSHORE ESTATES	13	13
SE 8 + NE 8 PARAMAC POINT	31	53
NW 8 KENGLINED	25	25
N8 CHURCH ISLAND LEASE	1	1
SW 9 PARAMAC COVE	29	59
NW 9 ISLAND LEASE	1	1
<b>N 9 EVERGREEN BAY + WEST POINT</b>	<b>21</b>	<b>76</b>
SE 9	4	32
NE10	3	31
SW 15	3	35
NW 15	2	36
SE 16 + SW 16 WEEKEND ESTATES	54	54
NE 16 + NW 16	4	33
SW 16 JACKFISH LAKE (BIG) ISLAND LEASE	35	35
SW 16 LAKE AVENUE	9	9
NW 16 STEVEN BEACH	11	24
SE 17 TWO ISLAND POINT	16	25
NE 17	1	37
SW 17	4	25
SE 20	1	37
SW 21	1	30
NW 21 LAKECREST	29	29
SE 21	1	38
NE 21	1	36
SW 22	2	36
<b>TOTALS EXISTING AND FUTURE</b>	<b>349</b>	<b>1011</b>
EXISTING LOTS		349
% INCREASE		290%

# FUTURE BUILD-OUT

➤ 57 Lots for West Point now becomes the new precedent for the Area Structure Plan and will result in **1,011** total lots



# 2018

- Lakeshore lots based on length of shoreline of 103 m/lot
- Build out total is 62 new lots with 14 at West Point Estates



## **Conclusion:**

As previously stated the JLMA is opposed to the proposed new subdivision.

**The outline plan does not respect the intent of the Area Structure Plan like the last four subdivisions:**

1. Increased setback from the lake
2. Protection of slopes greater than 15%
3. Limited creation of backlots