

Jackfish Lake

Limits to Total Development Potential



Jackfish Lake Management Association (JLMA)

- Mission
 - voluntary organization
 - provide for the management and conservation of Jackfish Lake for present and future generations
 - offering Lake users educational and recreational opportunities that support stewardship of the Lake and its surroundings as a natural resource.



Jackfish Lake State of the Watershed Report (2016)

Author: North Saskatchewan Watershed Alliance (NSWA)

- Purpose

- Consolidate environmental information on Jackfish Lake and its watershed in an effort to support future planning and management discussions.
- Submitted to JLMA, Alberta Environment and Parks, and Parkland County.

- Conclusions

- **Jackfish Lake under significant development and recreational pressure**
- Long-term water level declines and declining water quality
- Blue green algal advisory 2015, and significant fish kill during winter 2016.
- **Action is required to prevent further degradation and to protect the lake for future generations.**



It's a Delicate Balancing Act for a Small Lake

- Jackfish Lake offers a great escape from everyday life
- No one wants their escape to include traffic jams at the boat launch, and collisions or injuries on the water.
- Increasing lake use
 - Results in declining environmental quality, user enjoyment and safety.
- Long run outcome
 - Over usage results in less enjoyable, unhealthy lakes and can translate to economic loss in the recreation and tourism industries and, declining property values.



Jackfish Lake Area Structure Plan (1996)

- Section 2.2.3 – Social Limiting Factors
- Section 2.2.4 – Boating Carrying Capacity
 - Calculation based on fact that “each water oriented recreational activity requires a certain amount of water surface in order to occur **safely**”.
 - Produces a total development potential for a lake.
 - Concluded that “Jackfish Lake had exceeded its carrying capacity”.



Carrying Capacity for Jackfish Lake

Jackfish Lake	Based on Parcel Mapping	Reduce by 30m slow zone	Remove Lost Lake
Overall lake ACAD Drawing	m2 2902514.07	m2 2166848.33	m2 2166848.33
Lost Lake		153162	0
Less Big Island	-57922.8	-91300.26	-91300.26
Less Two Island	-6721.43	-18679.66	-18679.66
Less Two Island	-17446.03		
Less Church Island	-8070.58	21575.87	21575.87
Total m2	2812353.23	2231606.28	2078444.28
Divide by 10,000 m2/h	10,000	10,000	10,000
Total Hectares	281.24	223.16	207.84
1h = 2.4371 A	2.47015	2.47015	2.47015
Total Acres	694.69	551.24	513.41
15 Acres/boat	15	15	15
Carrying Capacity	46.3	36.7	34.2
Boats	-23	-23	-23
Less Day Users	23.3	13.7	11.2
Available Capacity for Lots			

Only capacity for 11 lot users!?



JACKFISH LAKE BOATING GUIDELINES

BACKGROUND

The main goals of these guidelines and map is to improve stirring of the lake during peak periods, **improve safety** and **reduce the environmental impact** of boating. Most of the impact of boating is caused during the 8 busiest weekends of summer. **Please try and shift your recreational boating to off peak days and times when able.** In 2015 we had our first large toxic blue green algae bloom and a winter fish kill, largely driven by declining water levels. Stirring up the bottom of the lake releases nutrients in the water, which feeds the algae and can contribute to a bloom. Staying out of shallow areas is one way you can help reduce the chance of another bloom.

GUIDELINES

- Be a respectful boat driver. Practice the "first come, first user" principal
- Prioritize low impact activities like swimming, canoeing, kayaking, stand up paddle boarding, fishing, and alalom skiing prior to 10:30am.
- Don't facilitate the "end-running" of the public boat launch parking capacity limits and fee, by allowing parking at your place.
- Properly clean your boat before coming from another lake. Don't bring in Zebra Mussels.
- Designate another person (spotter) in the boat as a proper look out by sight and hearing, to be aware of conditions around your vessel.
 - 40% of all power boating fatality victims have a blood alcohol level above the legal driving limit. Don't "Crab with Boose" It's your responsibility.
- Mind your noise level, keep your stereo at a respectful level (especially tower speakers).

Try shift usage to off peak weekdays



JACKFISH LAKE BOATING GUIDELINES

→ GO AROUND ISLANDS ON THE RIGHT HAND SIDE

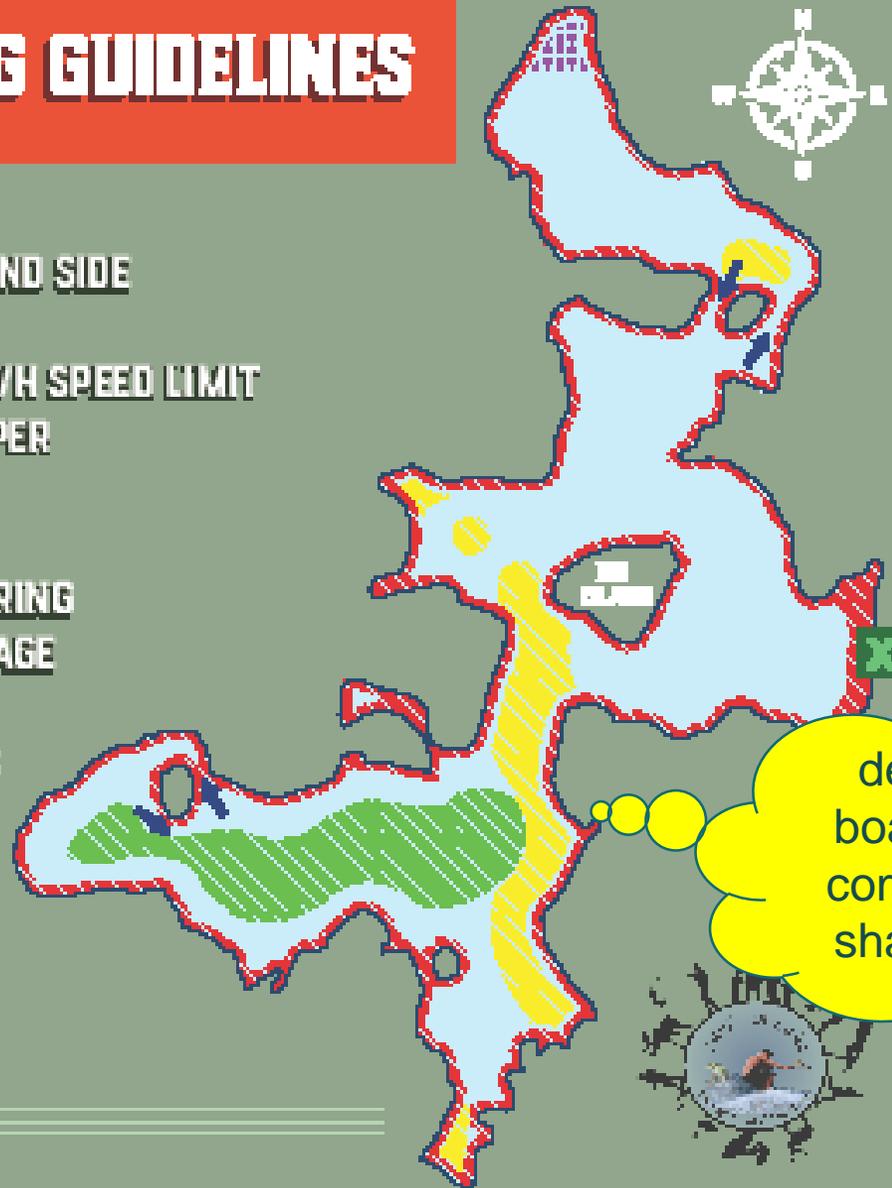
 RED AREAS, NO WAKE ZONE AND 10KM/H SPEED LIMIT WITHIN 30 METERS OF SHORELINE AS PER TRANSPORT CANADA REGULATIONS

 YELLOW AREAS, SHALLOW, AVOID STIRRING UP THE BOTTOM AND PROPELLER DAMAGE

 GREEN AREAS, DEEP, IDEAL FOR WAVES

 PUBLIC BOAT LAUNCH

 IDEAL SWIMMING AREA



New development boats would be coming in/out of shallow area of lake!?



RECREATION & TOURISM

Recreation and Tourism Development | Recreation and Tourism developments provide recreational opportunities to County residents and visitors. When developed sensibly, these developments bring a range of employment and community benefits to County residents. Examples of recreation and tourism development include campgrounds, spas, golf courses, seasonal recreational vehicle parks, motorized vehicle trails and parks, equestrian facilities and non-motorized and nature trails. These developments are located in the Rural Agriculture Area and Prime Recreation and Tourism Areas and consist of 4 or less subdivided lots.

Seasonal Resort Development | Seasonal Resort Development provides recreational opportunities that are seasonal in nature, offers non-permanent accommodation and is focused around a local or regional amenity. These developments must be sensitive to their local context. New seasonal resort developments shall be located within the County's Prime Recreation and Tourism Areas and adequately supported by infrastructure, community services, and transportation networks.



'I thought I was dead': Alberta Man Recalls Boat Accident

"I want people to never have the experience of what I'm going through right now". CBC News, Aug 2017



Conclusions and Recommendations

- ASP 1996
 - Jackfish Lake has “exceeded carrying capacity“
 - “Any additional development is done in such a manner as to not further aggravate water quality and boating capacity concern”.
 - Limit shoreline development density!
 - No “Keyhole” or “Funnel” development for back lot access!

Limit land-use development – don’t add to the lake capacity problems, safety risks and declining water quality!

