

Bird River Sustainable Development/Recreation Study

Bird River Technical Findings & Cottage Owner's Survey Results

September 6, 2008

by
Lombard North Group (1984) Ltd.
Planners & Landscape Architects



Bird River Sustainable Recreation Study

- **Part#1:** Purpose of Study and Summary of Technical Findings
- **Part#2:** “Guiding Use and Conservation of the Bird River” Cottage Owners Survey Results

Bird River Sustainable Recreation Study

Part #1 Purpose and Technical Results

The purpose of this study is to develop a Secondary Plan for the Bird River

The purpose of the Secondary Plan is to guide future recreation and seasonal resort development decisions.

The objectives of the Secondary Plan will be to balance:

- ❑ **seasonal resort /recreation use with**
- ❑ **quality of place and stewardship of the environment**

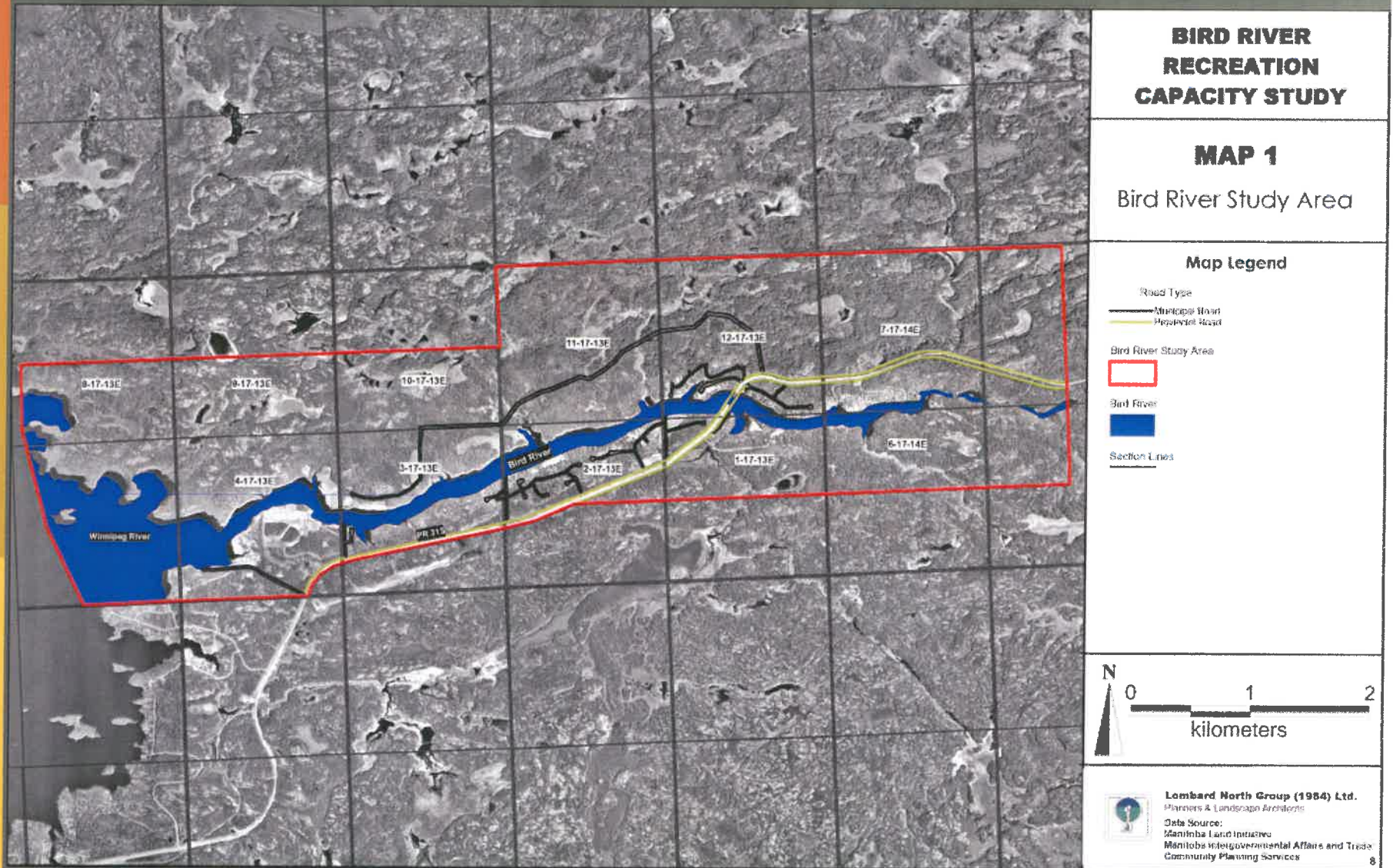
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Carrying Capacity measures the capability of a defined geographic area to tolerate various levels of use or pollution in sustainable manner without degradation.

Premise behind carrying capacity is the desire to maintain the integrity of the environment so its qualities are not diminished.

Sustainable use is responsible use which preserves the qualities of place for current and future users.

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Implications Assessed:

- ❑ Boating separation distances
- ❑ Float plane alighting areas
- ❑ Water quality
- ❑ Location of seasonal resort development
- ❑ Seasonal residential development density
- ❑ Boating inventory observed

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BIRD RIVER RECREATION CAPACITY STUDY

MAP 7B

Bird River
5 Acre Active Boating Buffer

Map Legend

- Boats
 -  Boat
- 5 Acre Active Boating Buffer
 -  5 Acre Active Boating Buffer
- Road Type
 -  Municipal Road
 -  Provincial Road
- Bird River Study Area
 -  Bird River Study Area
- Bird River
 -  Bird River
- Section Lines
 -  Section Lines



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31

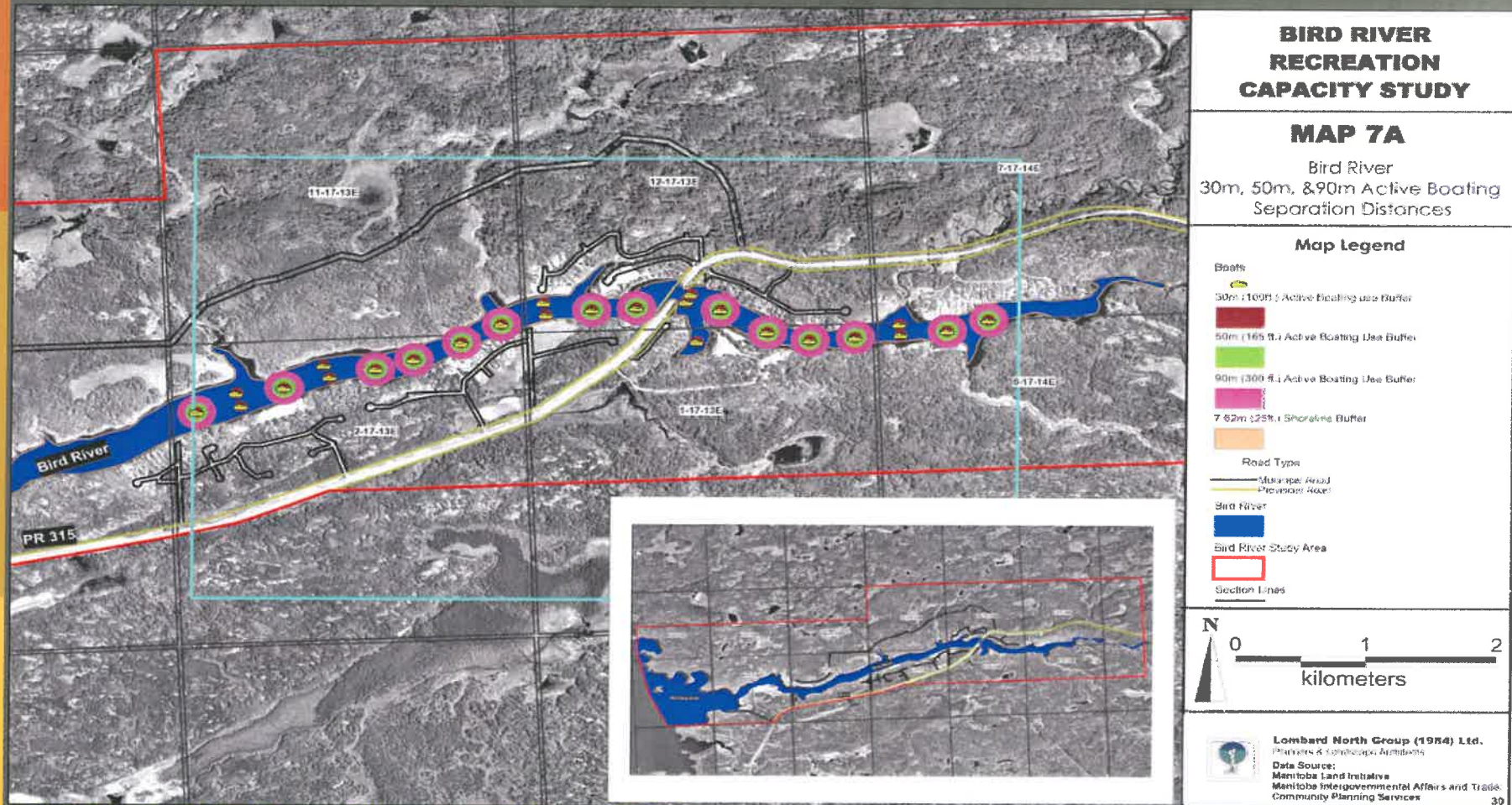
5 Acre Active Boating Buffer

- Based on Ontario Ministry of Natural Resources Lake Alert-Phase II
- Lake Alert-Phase II has standards of 1 boat per 10 acres of water = 29 boats as Bird River capacity.

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Bird River Cottage Owners' Survey Results

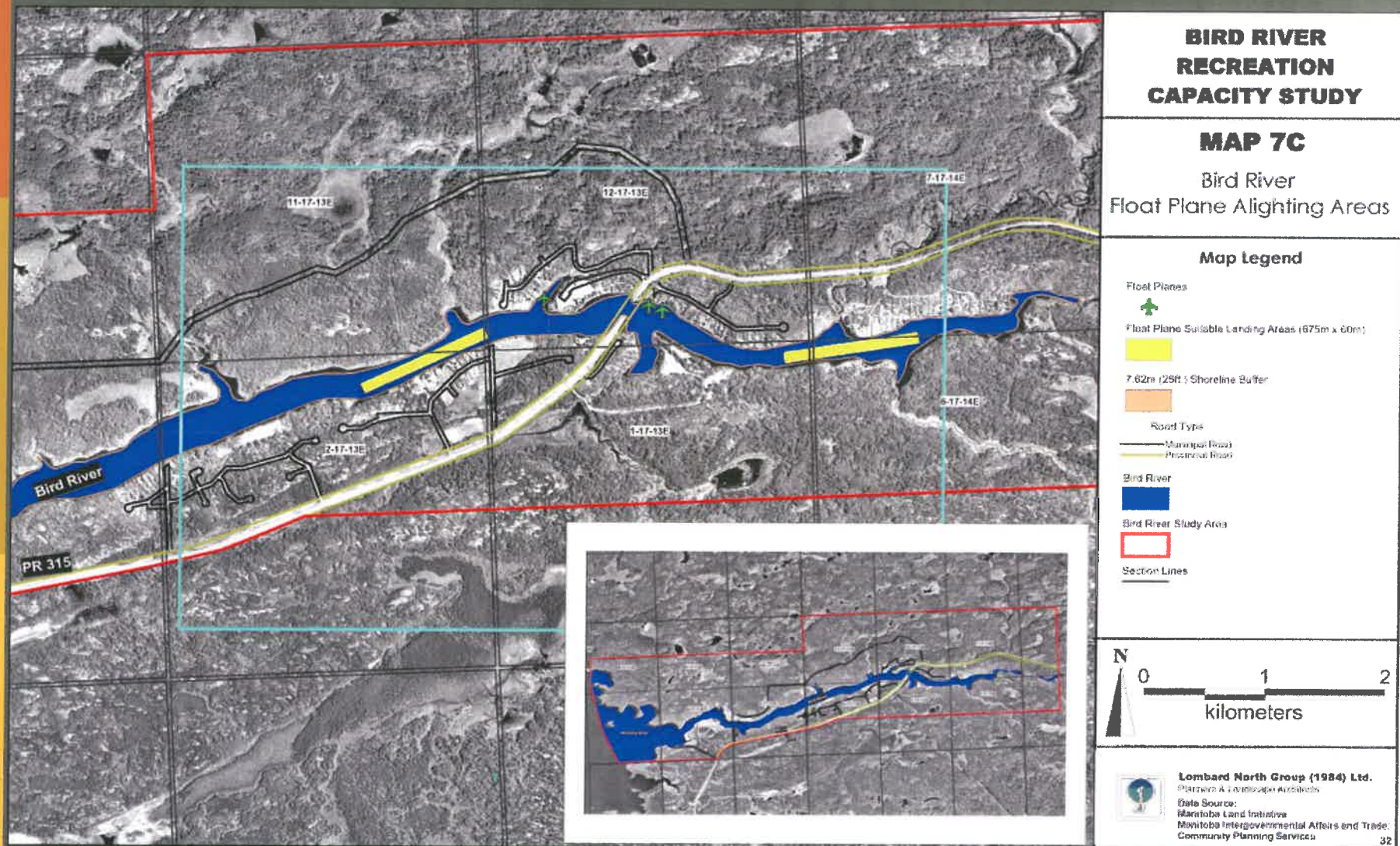
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Active Boating Separation Distances

▣ "Transport Canada Boating Restriction Regulations" restricts vessel speed within 30 meters of a shoreline to 10 km/hr

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Water Quality Comparison 1995 & 2007

Bird River Water Sampling Averaged Results for 1995 and 2007

Year of Study	Fecal Coliform	Nitrate+Nitrate Dissolved	Ammonia	Chlorophyll	Dissolved Phosphorus	Total Phosphorus	TK Nitrogen
1995	58 CFU/100ml*	<0.01mg/L	<0.02mg/L	4.83ug/L	0.014mg/L	0.029mg/L	0.616mg/L
2007	<10 CFU/100ml	0.02mg/L	0.015mg/L	not tested	0.015mg/L	0.029mg/L	0.775mg/L

*note: The Fecal Coliform testing for the 1995 study contained a few extremely high anomalies for sample site B. If sample site B is excluded from the average, then the average would be 12.4 CFU/100ml

Bird River Water Sampling Results: 2007

Sample Site	Fecal Coliform	Nitrate+Nitrate Dissolved	Ammonia	Chlorophyll	Dissolved Phosphorus	Total Phosphorus	TK Nitrogen
A	10 CFU/100ml	0.018mg/L	0.015mg/L	not tested	0.015mg/L	0.034mg/L	0.7mg/L
B	<10 CFU/100ml	0.013mg/L	0.012mg/L	not tested	0.012mg/L	0.029mg/L	0.6mg/L
C	<10 CFU/100ml	0.025mg/L	0.016mg/L	not tested	0.012mg/L	0.028mg/L	0.5mg/L
D	<10 CFU/100ml	0.025mg/L	0.018mg/L	not tested	0.012mg/L	0.025mg/L	0.6mg/L

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BIRD RIVER RECREATION CAPACITY STUDY

MAP 8

Bird River
Water Sample Locations

Map Legend

Sample Sites



Road Type



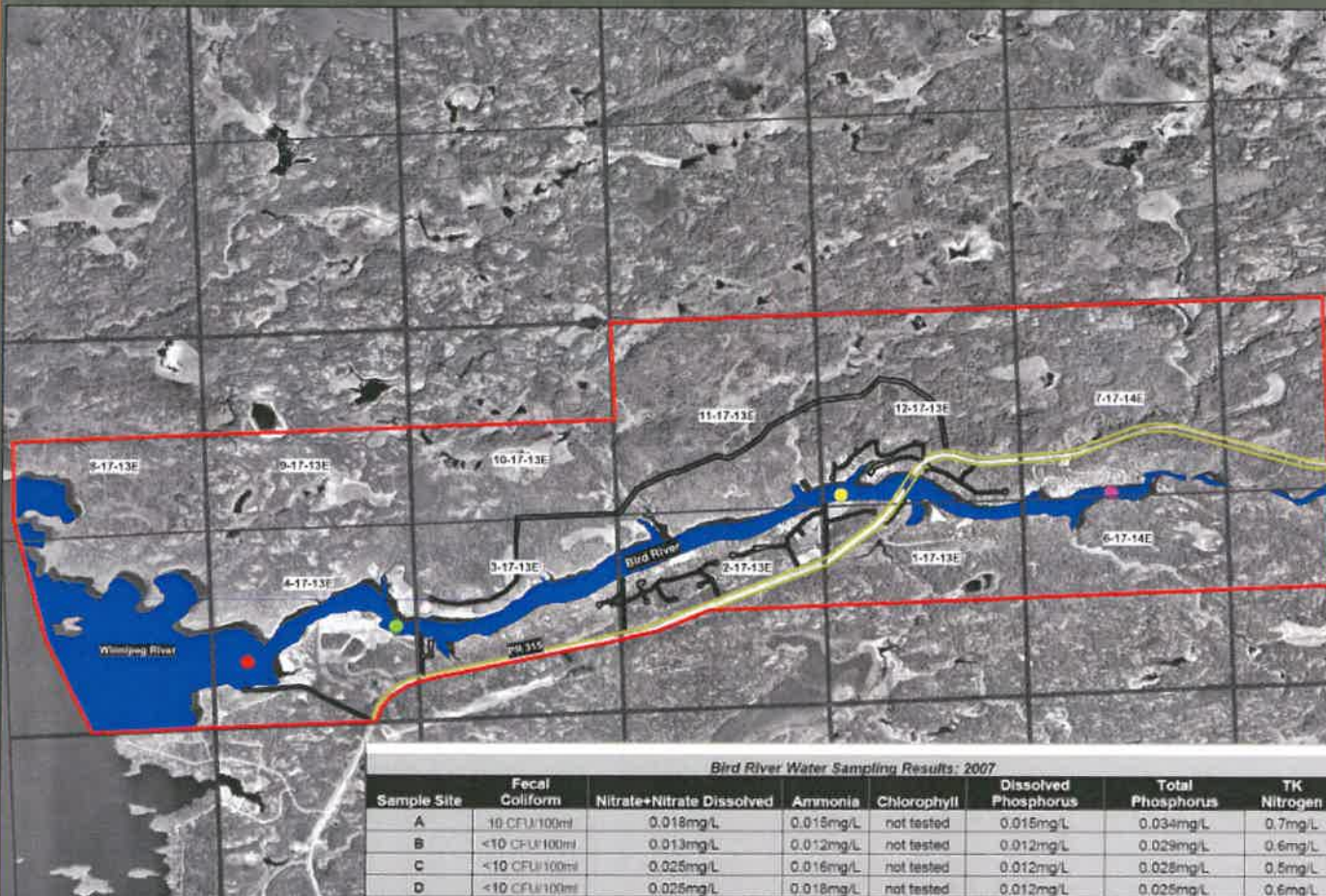
Bird River Study Area



Bird River



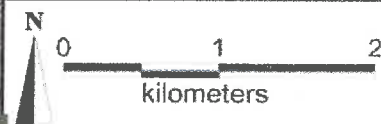
Section Lines



Bird River Water Sampling Results: 2007

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D	<10 CFU/100ml	0.025mg/L	0.018mg/L	not tested	0.012mg/L	0.025mg/L	0.6mg/L

- Total phosphorus levels average .029 exceed recommended MSWQO level of .025 (induces algae growth)
- Fecal coliform levels are 10/100ml exceeds levels for drinking water but not for swimming (200/100ml)



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42

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MAP 12

Bird River
Estimated Age of Construction

Map Legend

Estimated Development Timeframe

- 1960s
- 1970s
- 1980s
- 1990s
- 2000s

Bird River Property Survey Lines

Road Type

- Municipal Road
- Provincial Road

Bird River Study Area



Bird River



Section Lines



N



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57

Location of Seasonal Resort Development

Majority of recently constructed seasonal residential units are located along the north shore of the Bird River

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BIRD RIVER RECREATION CAPACITY STUDY

MAP 13

Bird River
Seasonal Residential Unit Density

Map Legend

Observed Density of Cabins

High
Medium
Low

Bird River Property Survey Lines

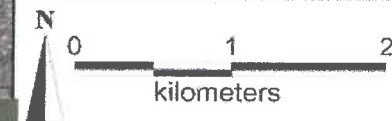
Road Type

Municipal Road
Provincial Road

Bird River Study Area

Bird River

Section Lines



Seasonal Residential Unit Density

□ Density is defined by proximity "high" means proximity between cabins 95%+ of the developed area is considered high density = proximity between cabins provides minimum room for expansion

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Bird River Cottage Owners' Survey Results



Lombard North Group (1984) Ltd.

Managers & Landscape Architects

Data Source:

Manitoba Land Initiative

Manitoba Intergovernmental Affairs and Trade

Community Planning Services

55

Bird River Sustainable Recreation Study

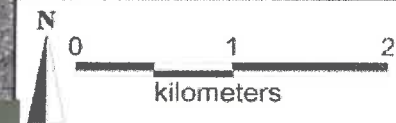
BIRD RIVER RECREATION CAPACITY STUDY

MAP 14

Bird River
Boats Counted from Water

Map Legend

- Seaplanes Counted Boats
- Area 1 Boat Density
0.2 boats/acm of surface water
- Area 2 Boat Density
0.6 boats/acm of surface water
- Area 3 Boat Density
1.3 boats/acm of surface water
- Road Type
Municipal Road
Provincial Road
- Bird River Study Area
- Bird River
- Section Lines



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62

Boating Inventory

Approx 300 boats of varying types and three float planes were observed within the Bird River study area by the field study team during the study area site visit

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Bird River Cottage Owners' Survey Results

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Planning Context

- ❑ The Bird River has a total boating surface of 288.59 acres its width ranges from 54 m to 231 m
- ❑ The navigable length of the river is limited to 7.8km
- ❑ 1977 = 200+water craft observed within study area
2007 = 300 water craft observed within study area
- ❑ 2007 water quality slightly reduced since 1995
- ❑ 1977 = 318 seasonal resort units (excludes lodge and camp)
2007= 234 seasonal resort units (excludes undeveloped lots in approved subdivisions, lodge and camp sites)
- ❑ Since 1991 Development Plan 60 net new seasonal sites have been approved (including trailer site conversions)
- ❑ 82 trailer sites were converted to 36 seasonal cottage lots

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Summary of Findings

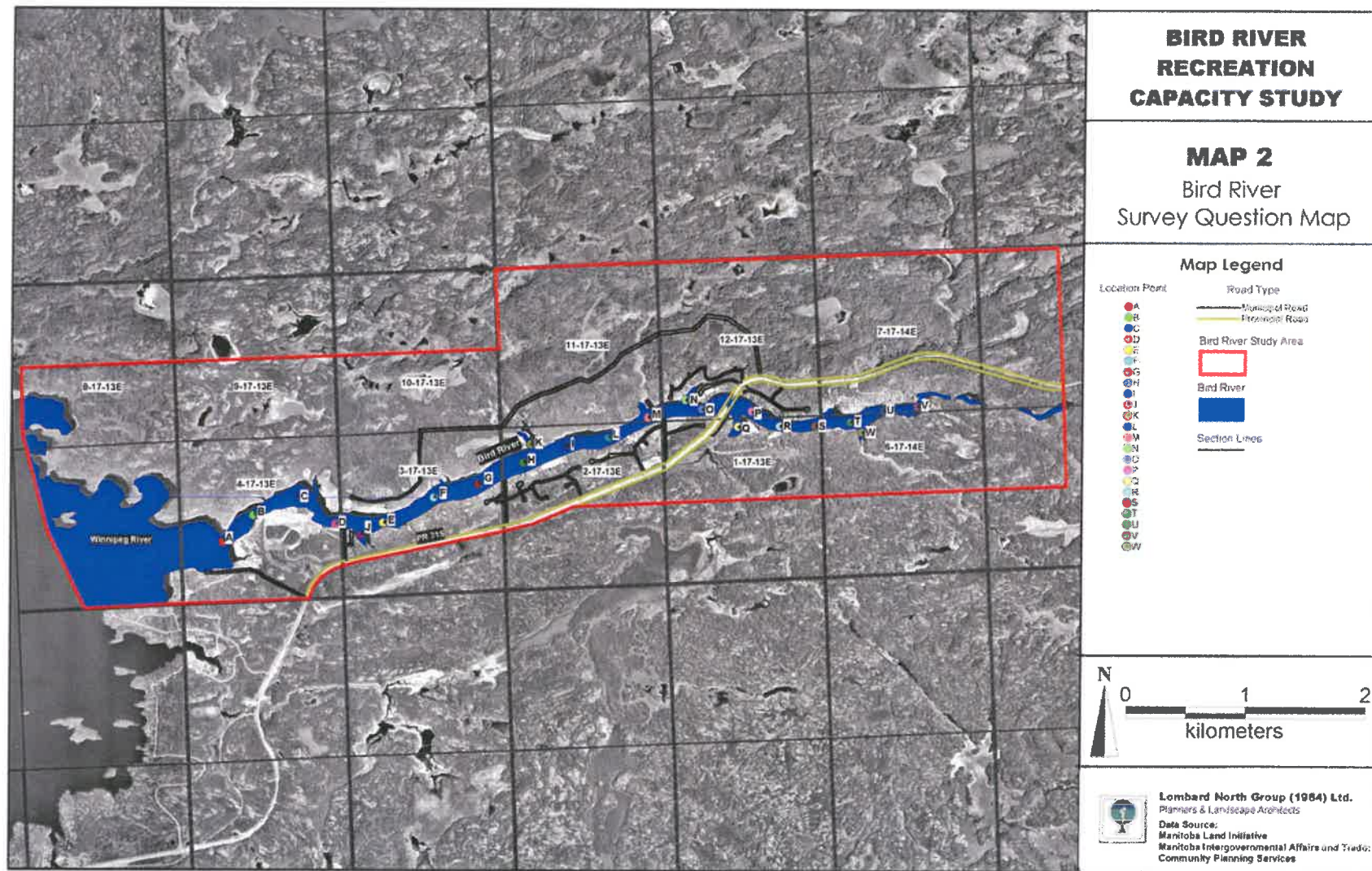
- ▣ Further seasonal resort, float plane or boating use of the Bird River will very likely stress the quality of the recreation experience.
- ▣ Recreational boating originating within the Bird River exceeds River boat carrying capacity.
- ▣ Recreational boating use of the Bird River originating from connected waterways is significant and if unabated is expected to diminish Bird River Cottager's recreation experience.
- ▣ RM of Alexander will require the cooperation of other jurisdictions to address the limitations of the Bird River to sustain recreation boating use
- ▣ Need to involve Inter-governmental Affairs, Manitoba Parks Branch and adjoining municipalities in the discussion of a sustainable regional recreational plan to define carry capacity for connected waterways.
- ▣ It is expected current users will be very concerned over additional water oriented development within the Bird River Study Area and adjoining waterways.
- ▣ Consider replacing existing landfill site and up-grading waste management services provided to the study area
- ▣ Bird River water should be treated if used as source of drinking water by seasonal resort residents.

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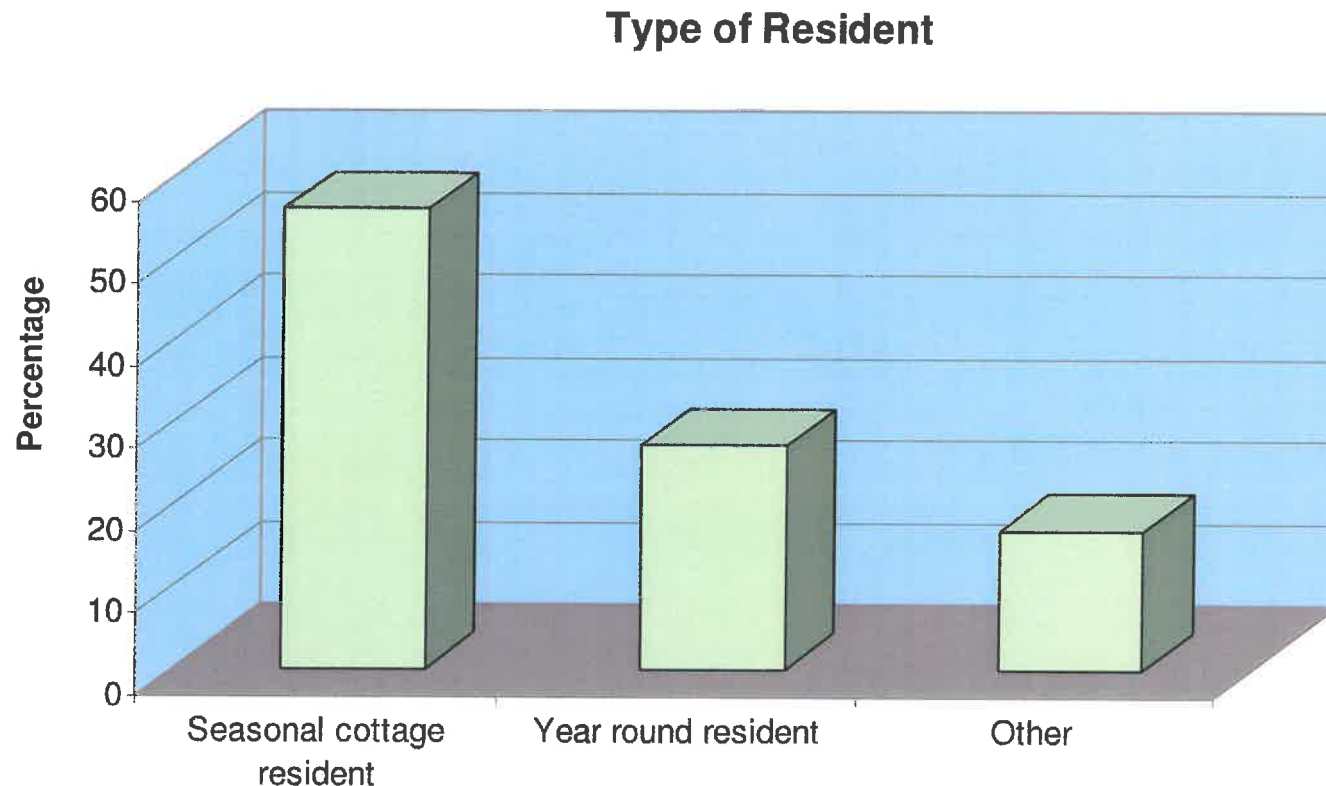
Part #2 Cottage Owners Survey Results Guiding Use & Conservation of the Bird River

- ❑ **385 cottage owners were mailed the survey.**
- ❑ **147 cottage owners returned the survey – 1 to 2.6 return rate**
- ❑ **131 had local civic address**
 - **104 of these (71%) located within the Bird River waterfront**
 - **27 (14%) located immediately south of the mouth of the Bird River along shore of Lac du Bonnet (Still Cove)**
 - **16 (11%) had a mailing address outside the area (Wpg)**

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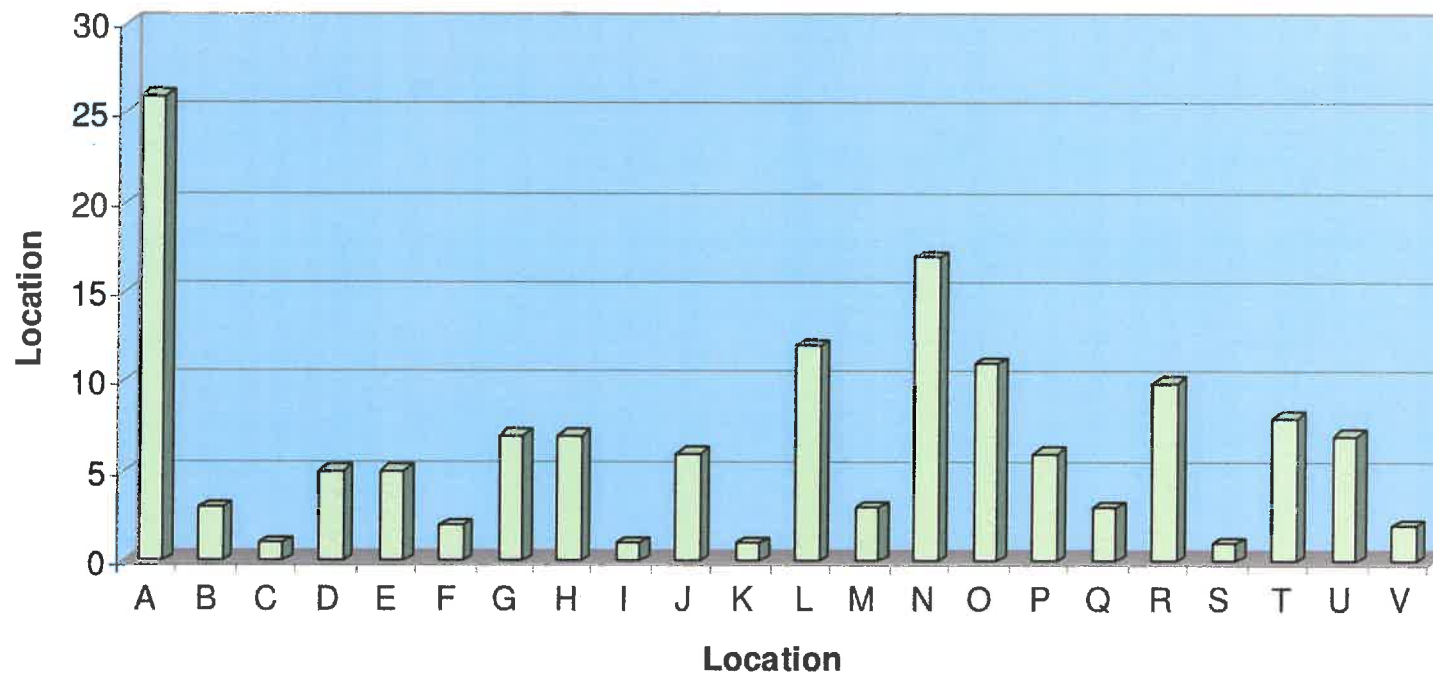
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- ❑ 56% of respondents – seasonal cottage residents
- ❑ 27% - year round resident
- ❑ 17% - other (ie. occasional users, have a lot, waiting to build)
- ❑ Average length of residency – **19 years**

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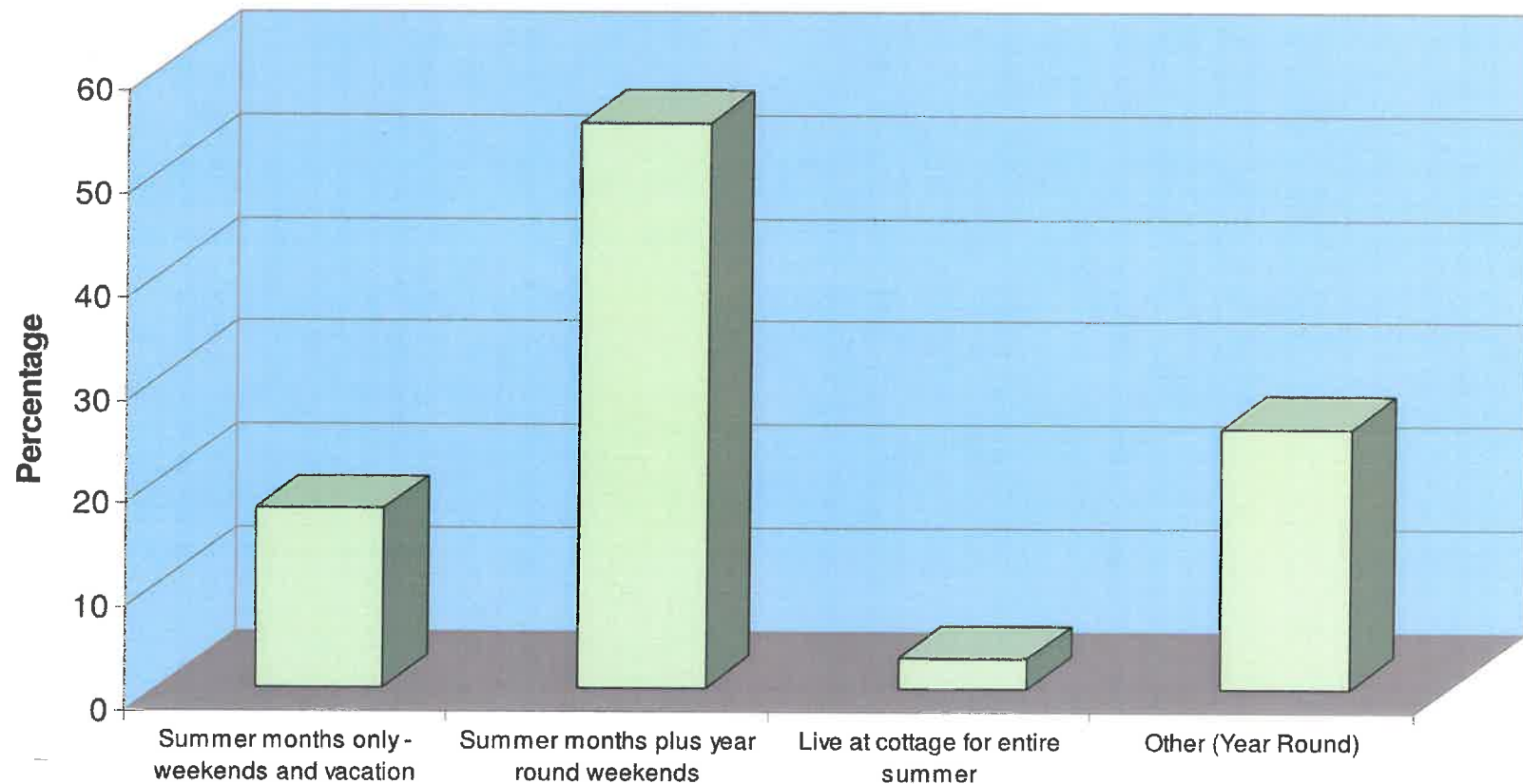
Respondents Cottage Locations



- Cottage locations identified by respondents – were slightly more concentrated at location "A" (mouth of the river) and locations "N" and "L" near HWY #315 bridge

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When People Mostly Use Property on the Bird River



- 55% of respondents use their property on the Bird River during summer months plus year round on weekends

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Characteristics or Attributes that Contribute most to the Recreation and Cottage Experience of the Bird River

Recreational Characteristics

- ❑ Bird River is a great place for many water sports
- ❑ Winter activities – snowmobiling, cross country skiing

Environmental Characteristics

- ❑ Abundance of wildlife and beautiful scenery
- ❑ Quietness of the water during the week

Social Characteristics

- ❑ Friendly atmosphere – place to relax with family and friends
- ❑ Located in close proximity to Winnipeg and Lac du Bonnet

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Changes or Problems that Negatively Impact the Current Cottage and Recreation Experience

Boat Traffic/Development Issues (frequent)

- ❑ Noise, congestion and safety
- ❑ The river is overdeveloped and boating conflicts exist

Environmental Characteristics (frequent)

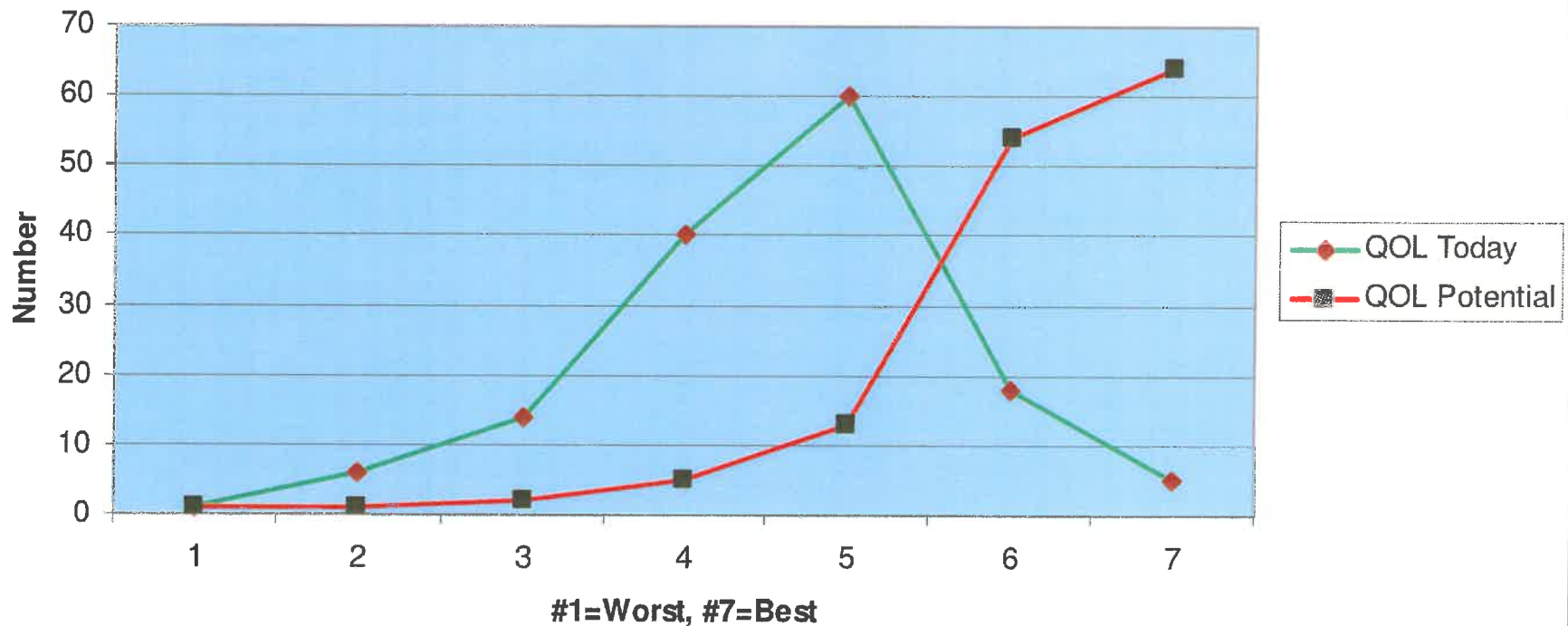
- ❑ Large waves from fast moving boats –shoreline erosion
- ❑ Natural habitats and fish stocks have been depleted

Mitigation of Boating Use Issues (infrequent)

- ❑ No negative impact – fewer boats now than 20-30 years ago due to increase in gas prices

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Quality of Life Index



- Quality of Life Today – cluster around #4 (28%) and #5 (42%)
- Quality of Life Potential – cluster around #6 (39%) and #7 (46%)

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Actions Proposed to Resolve Negative Impacts on Recreation Experience

Boat Traffic/Development Issues

- ❑ No additional development in the Bird River (including back lots)
- ❑ Greater police presence and boating safety signage

Environmental Issues

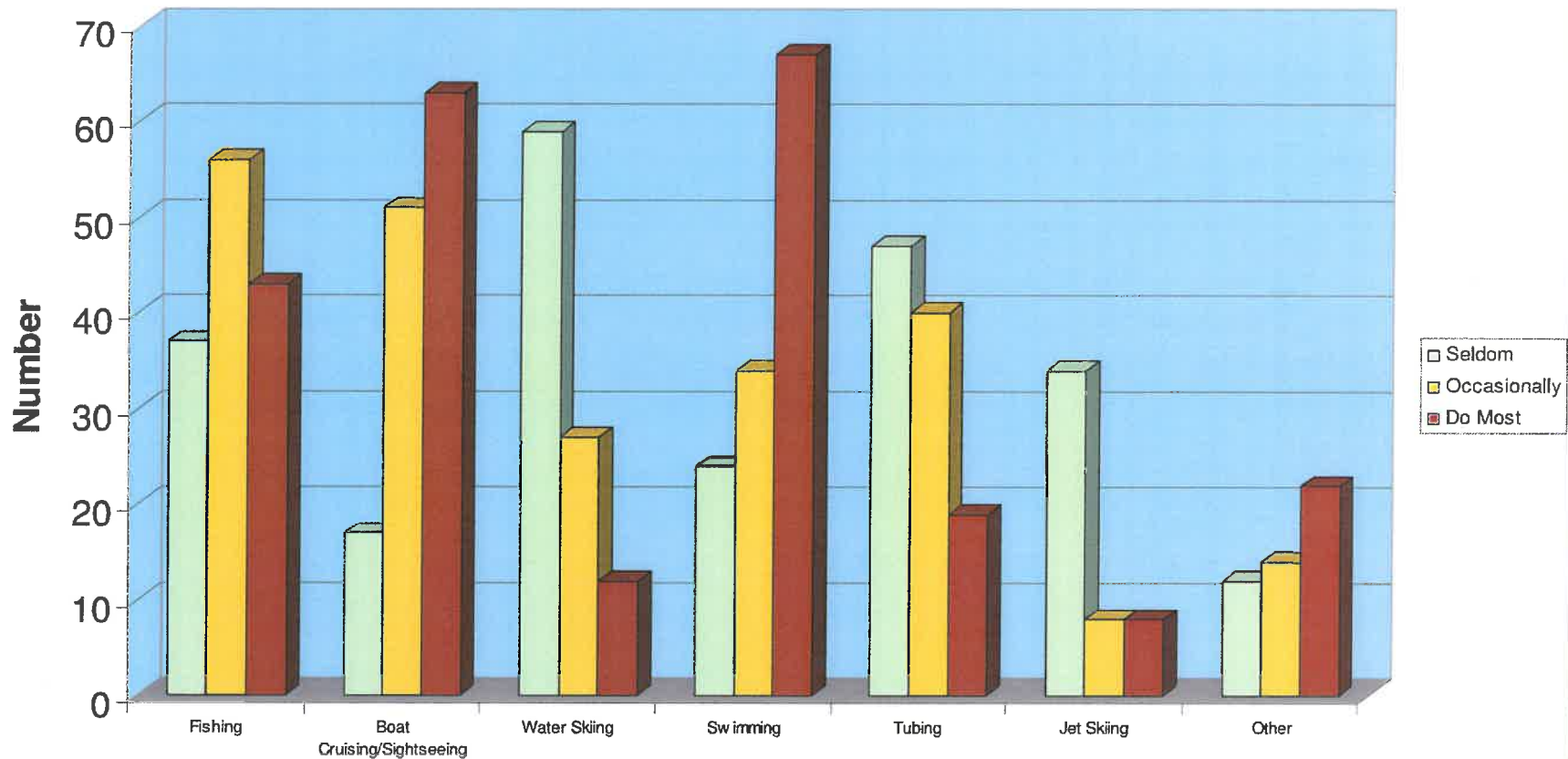
- ❑ Government regulation and monitoring of septic handling
- ❑ Water quality tests should take place annually

Social Issues

- ❑ Alternative forms of recreation to reduce boat traffic

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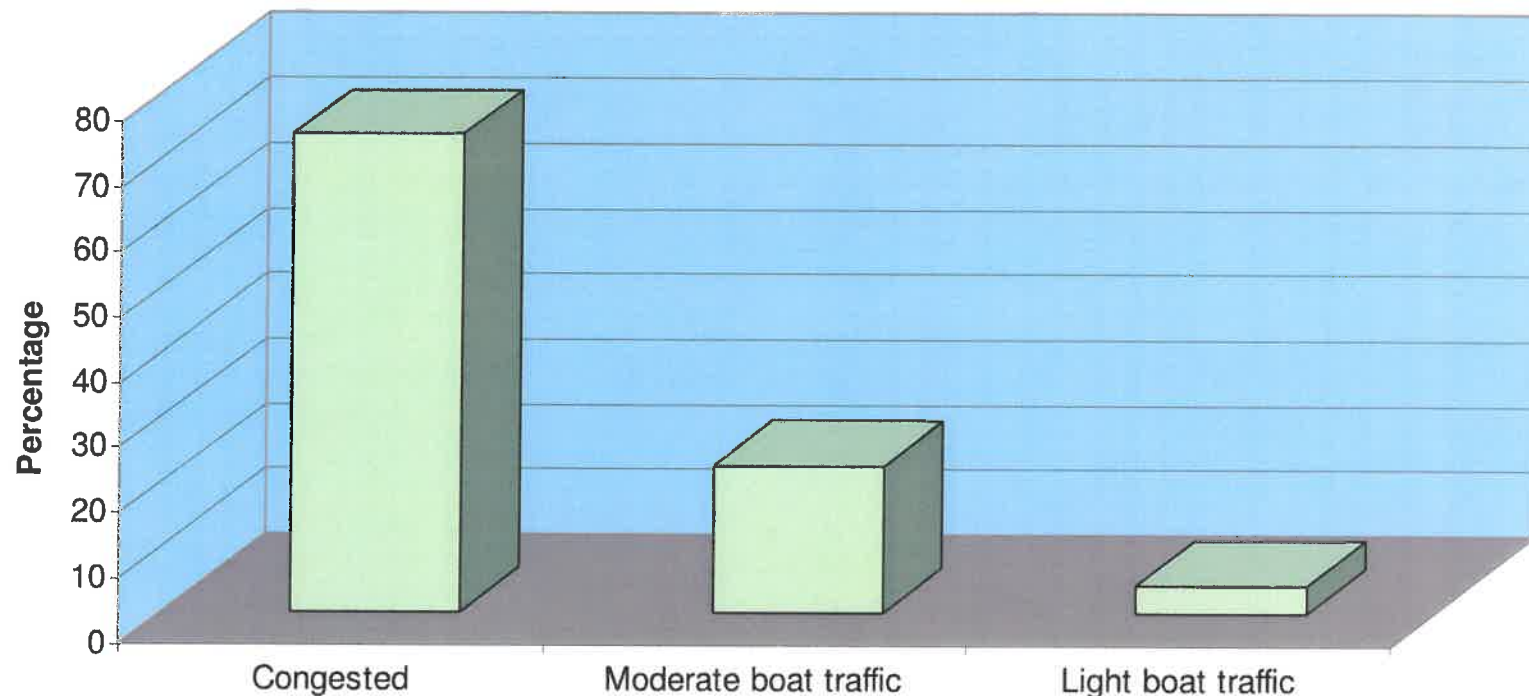
Type of Water Oriented Uses



- The two most popular water uses by respondents were boating/cruising and swimming activities.

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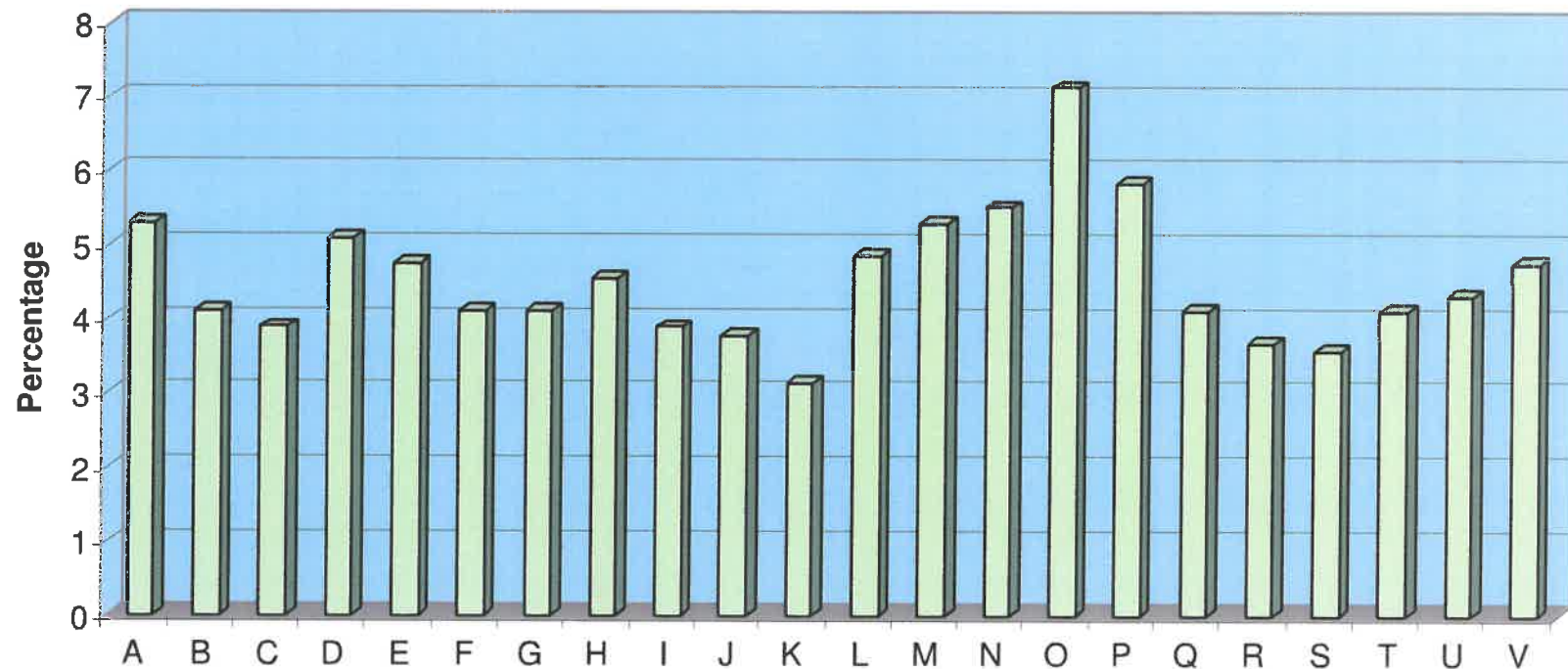
View of Summer Boat Traffic



- 73% of the respondents feel that boat traffic along the Bird River is "congested" during peak times on weekends and holidays
- 23% feel the boat traffic is "moderate"
- 4% feel the boat traffic is "light"

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Traffic Congestion Locations



- Higher than average cluster around locations "L-P" (near HWY #315 bridge)
- High concentration at location "A" – near mouth of river
- Location "D", located at first bend of the river has high concentration

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Description of Boating Problems on the Bird River

Boat Traffic/Safety Issues

- ❑ Boat traffic increases when the lake is rough – outside traffic enters the river for recreation purposes
- ❑ Speed and lack of proper boating procedures create safety issues

Environmental Issues

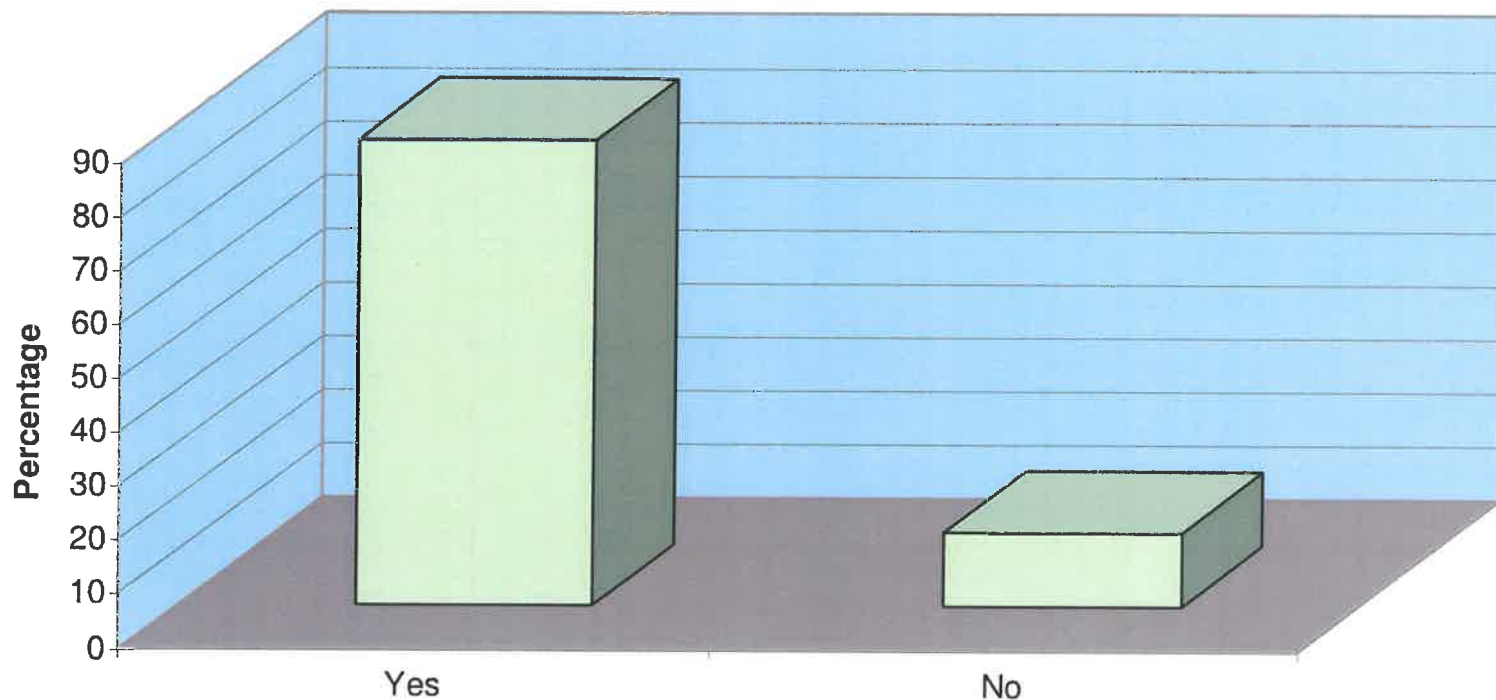
- ❑ Some areas are showing extensive shoreline erosion
- ❑ Amount of algae blooms have increased in recent years

Social Issues

- ❑ More police presence – drinking and boating

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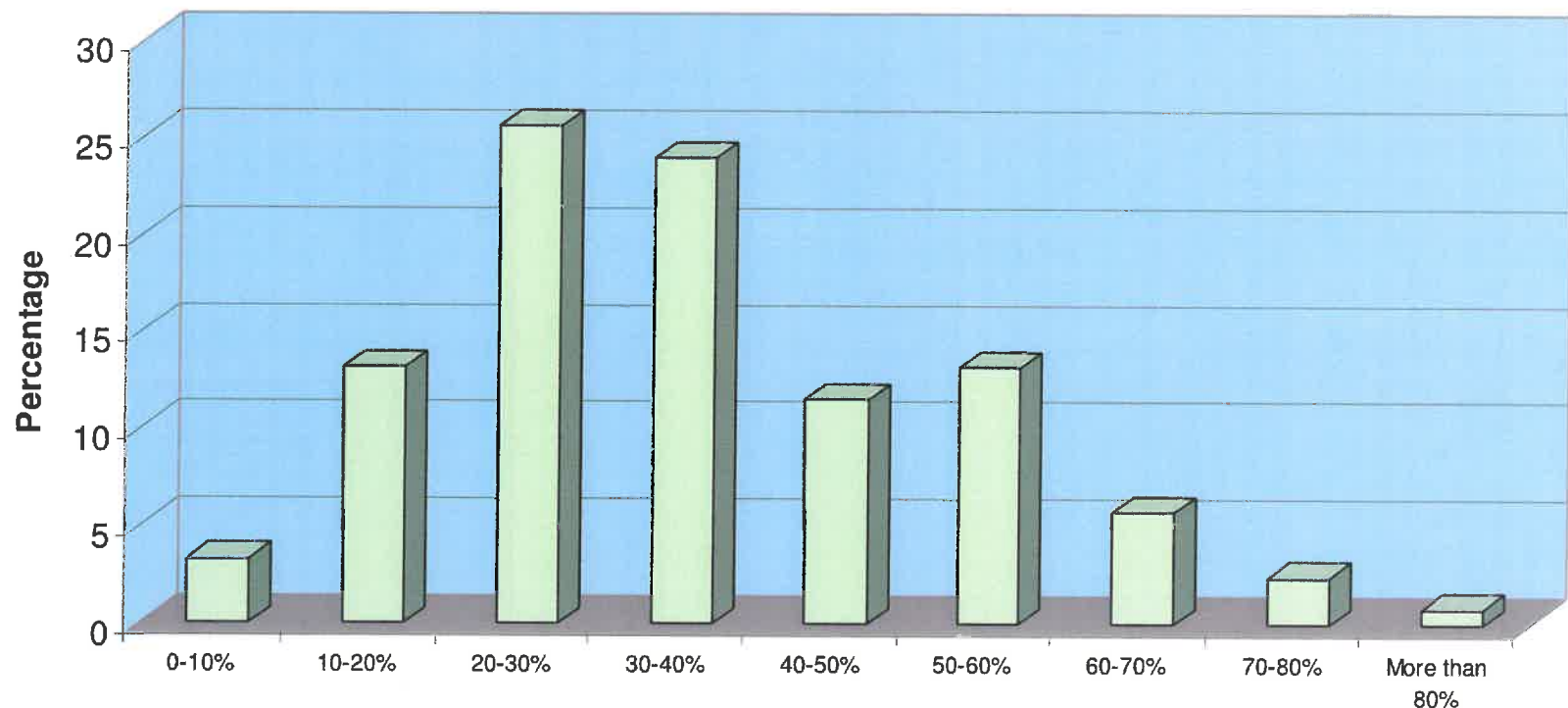
Increase in Boat Traffic



- 86% of the respondents agreed that the amount of boat traffic along the Bird River has increased as a consequence of expanding cottage and recreation development outside the Bird River

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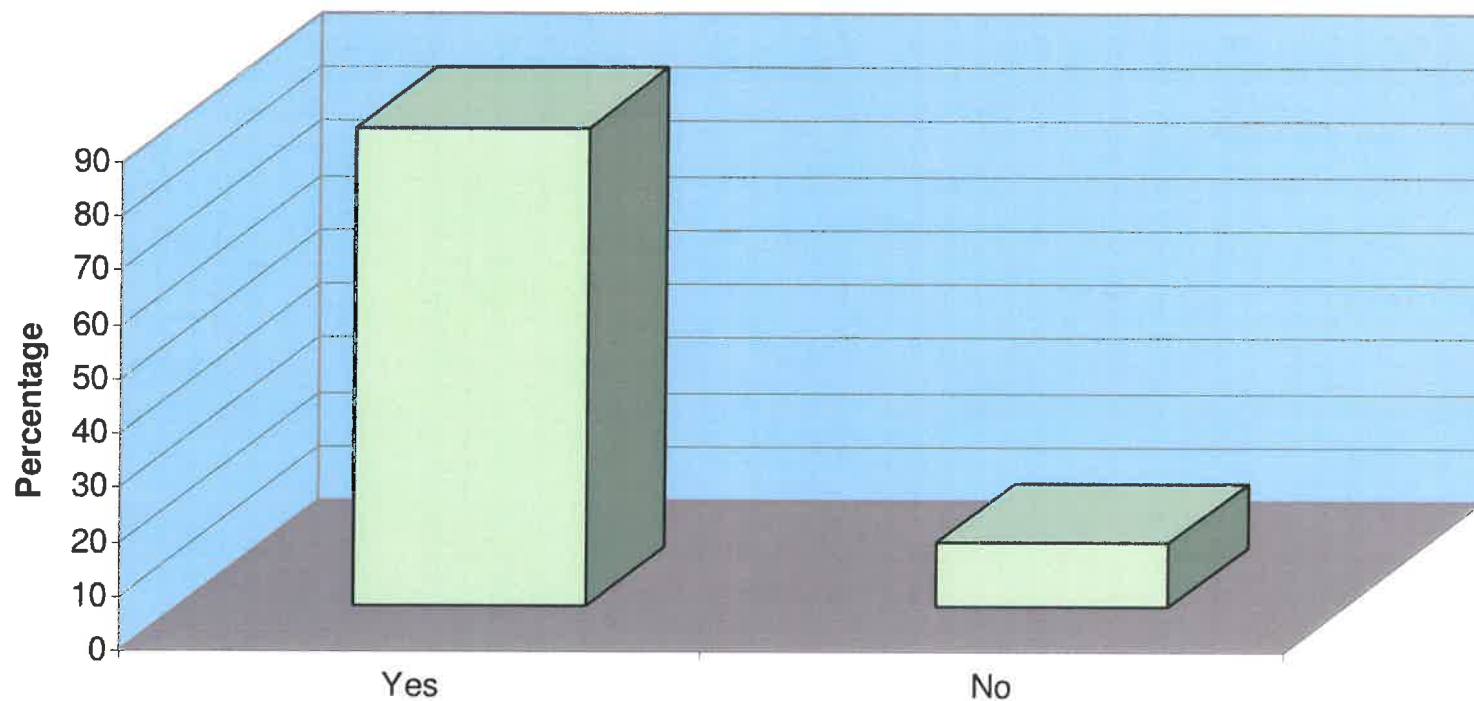
Percentage of Outside Boat Traffic



- 26% of the respondents estimated that 20-30% of the Bird River boat traffic during peak times on weekends originates from cottages outside of the Bird River
- 24% of the respondents estimated this figure to be 30-40%
- 32% of respondents felt more than 50% of the boating traffic comes from outside the Bird River.

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Additional Development in Relation to Quality of Recreational Experience



- 88% of the respondents agreed the quality of recreational experience on the Bird River will be negatively impacted by Parks Branch and adjoining municipality approval of additional seasonal resort subdivisions on connected waterways.

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Considerations for Protecting the Quality of the Bird River Recreation Experience

Boat Traffic/Safety Issues

- ❑ Further seasonal resort development on connected waterways ie the Bird River, Lee River and Lac du Bonnet should be prohibited
- ❑ Consider placing restrictions on motor size and/or speed on the Bird River

Environmental Issues

- ❑ Monitor closely holding tanks and sewer discharge from waterfront cottage lots
- ❑ Cost share private property owner initiatives to stabilize eroded portions of the riverbank

Social Issues

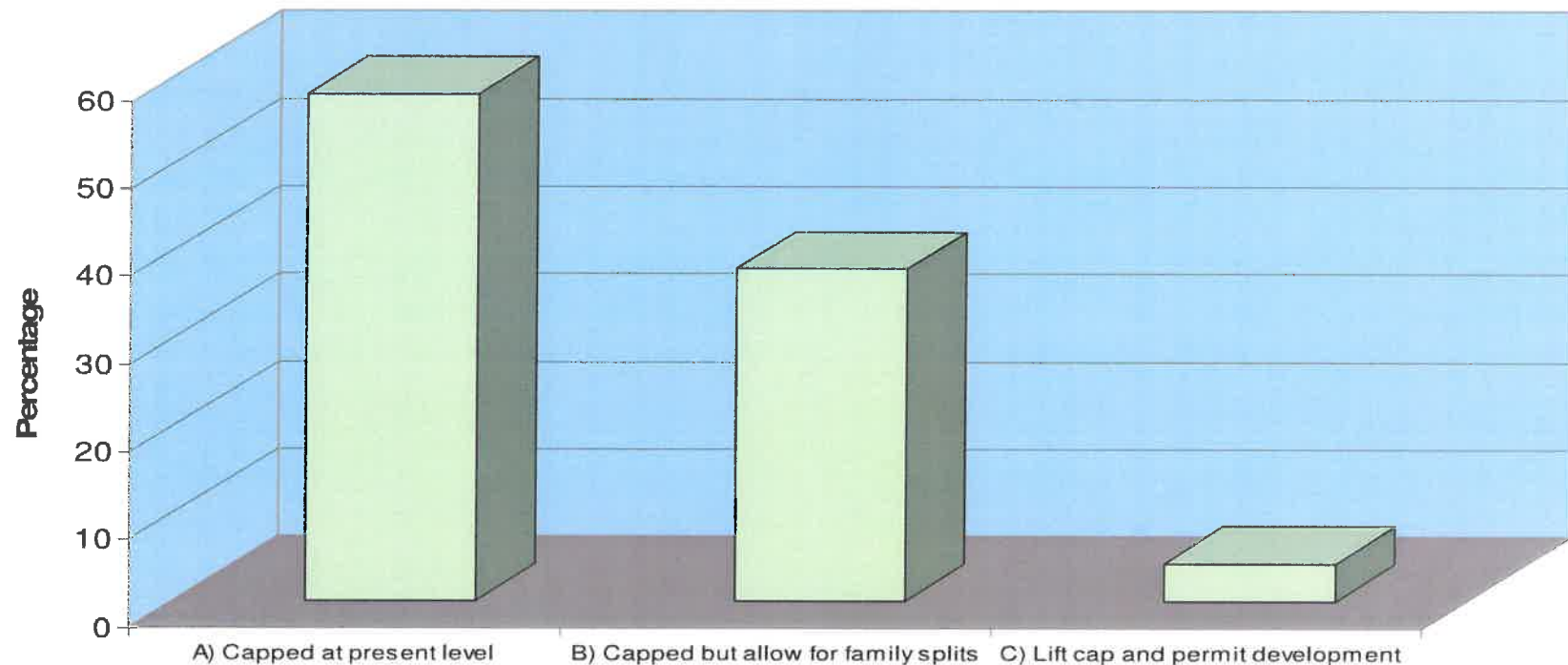
- ❑ Conduct similar recreation studies in nearby jurisdictions to develop a sustainable regional recreational carrying capacity

Mitigation Issues

- ❑ Increasing gas prices may result in less of boat traffic

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Managing Future Bird River Developemnt



- ❑ 58% of the respondents felt development should be capped at present level
- ❑ 38% felt that development should be capped at present level, subject to providing the opportunity for current long time owners to split a lot for a son or daughter
- ❑ 4 % felt more development should be approved

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Cottage Owner Suggestions – Managing Bird River Development

Capped at Present Level

- ❑ The Bird River is already over-congested and the river is dangerously overcrowded. Additional development will lead to an increase in boat traffic, creating more safety, noise and environmental issues

Capped at Present Level but Allow for Family Splits

- ❑ Family lot splits should be allowed for long time residents
- ❑ Family splits should be directed away from the waterfront

Lift Cap and Permit Development

- ❑ Congestion on the Bird River is rarely a problem
- ❑ New cottage development has enhanced area by replacing congested trailer lots

Environmental Issues

- ❑ Wildlife in area is being threatened and forced away from habitats
- ❑ Shoreline erosion is clearly visible from the heavy wave action

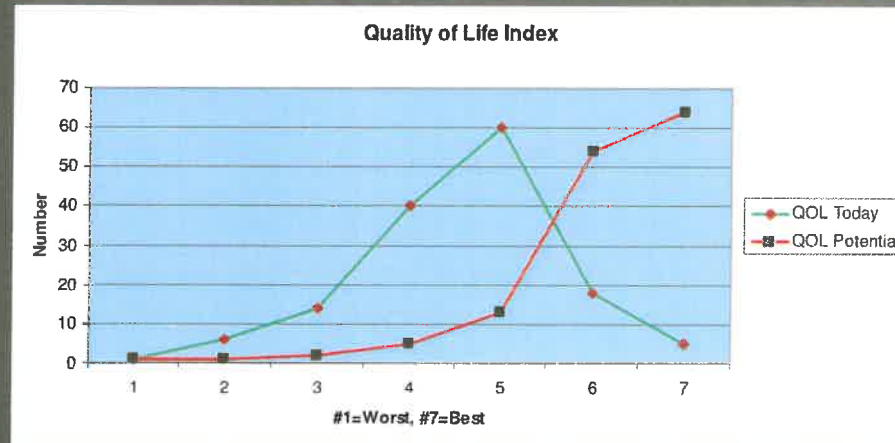
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Comparison between Respondents (on) the River and immediately (out) south on Lac du Bonnet

- ❑ Over 88% (in) 90% (out) respondents felt that their recreational experience would be negatively impacted by additional development on the Bird River and/or connected waterways
- ❑ 86% (in) 80% (out) felt boat traffic is congested at peak times
- ❑ 58% (in) 61% (out) felt development should be capped at present levels on the Bird River
- ❑ 38% (in) 39% (out) favored consideration be given to family splits for long time residents with large parcels.

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Survey Says?



Respondent ranking of the **"Current" Quality of Life (QOL)** index, indicate two things:

1. People presently value their current Bird River recreation experience (Ranking of 4 out of 7 > "tendency" is positive); and
2. People have adjusted to the changes in the use of the river which have taken place over the years notwithstanding that it has exceeded substantially carrying capacity standards adopted in other jurisdictions.

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Survey Says?

Respondent ranking of “**Potential**” **Quality of Life** (QOL) projects a dramatic positive shift in how people would value the Bird River recreation experience if we can be successful in taking actions to:

- limit boat traffic and contain future resort recreation development within the Bird River and connected waterways;
- seek input and develop with provincial and adjoining local governments a regional recreational carrying capacity for the connected waterways including the Bird & Lee Rivers and Lac du Bonnet.
- encourage private and public environmental stewardship practices; such as using environmental friendly products; reducing boating speed on the river; refrain from clearing shoreline vegetation; improving private and public waste disposal systems and
- develop non-water oriented recreation facilities and opportunities to relieve the boating pressures and use conflicts on the Bird River.

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Next Steps:

1. Based upon technical research and survey findings prepare a draft Bird River Secondary Plan providing policies to manage future development and use of the Bird River.
2. Convene a community information meeting to seek input into draft Planning Policies providing direction for:
 - the sustainable use and conservation of the Bird River; and
 - Establishment of a Connected Waterway Recreational Carrying Capacity Management Plan

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Questions?

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