

AN ASSESSMENT OF THE ATTITUDES AND PERCEPTIONS
OF NORTHERN MANITOBA SPORT-FISHING LODGE OPERATORS

BY

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A thesis

Submitted to the Faculty of Graduate Studies
in Partial Fulfilment of the Requirements
for the Degree of

MASTER OF ARTS

Department of Geography
University of Manitoba
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ABSTRACT

A mail-out questionnaire was developed to discern the attitudes and perceptions of northern Manitoba sport-fishing lodge operators. Questions addressed current marketing considerations and resource-base factors essential in attracting clientele, and marketing and resource-management considerations that constituted constraints to industry viability.

Operator's promotional effort concentrated on the abundance of fish and the prospect of catching large (trophy) fish. The majority of operators were of the opinion that a direct relationship existed between the quantity and quality of angling potentials and operational success. Management practices centred on catch-and-release angling. Long-term resource availability and allocation of restrictive but secured rights to the resource base were of considerable concern to respondents in respect to industry viability.

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Chapter I

INTRODUCTION

1.1 Recreational Fishing

Through questionnaire-based research, fishery resource managers have established that angling is a major recreational activity in Canada. Surveys of Sport Fishing in Canada, organized by the Department of Fisheries and Oceans in 1975, 1980 and 1985, have indicated that the demand for recreational fishing opportunities and associated services is stable nationally. Expanded use of questionnaires has concentrated on the economic aspects of sport angling, showing that the aggregate amounts of money spent by anglers are impressive, demonstrating the economic importance of angling. Recreational exploitation is viewed politically as a responsible use of the resource base.

The service industry supporting recreational fishing in Canada is comprised of 'specialized' outfitting and 'general' enterprises (Department of Fisheries and Oceans (DFO) 1989). Specialized enterprises are represented mainly by fishing lodges, which are dependent upon anglers for a major proportion of total revenue. Clients who prefer a more personalized angling experience will employ the specialized services of outfitters (DFO 1989). The variety and range of facilities and services offered by the fishing lodge sector are listed in Table 1.

TABLE 1

FISHING LODGE BUSINESS - RANGE OF FACILITIES & FEATURES

Accommodations	. Housekeeping cabins . Resorts . Lodges . Outpost camps . Campgrounds	
Facilities	. Restaurant/Dining Room . Lounge . Private bath . Shared bath . Laundromat . Tackle shop	. Convenience store . Smoke house . Freezing facilities . Full service hook-up . Marina/boat rentals . Airstrip
Product Forms	. Lake fishing . River/stream fishing . Guide services . Ocean fishing	. Ice fishing . Angling instruction . Alternative activity
Accessibility	. Road . Air . Water	
Pricing	. Package (basic) . Individual services	. Full-service "American Plan"

SOURCE: Department of Fisheries and Oceans, Recreation Fishing -
A Service Industry Profile, 1989.

Recent economic profiles have revealed the important contributions provided by the service industry to the recreational fishery. An estimate of the level of business attributable to 'specialized' services is possible by totalling the four purchase categories of 'Packages', 'Camping fees', 'Boat Rentals' and 'Guide Costs' (DFO 1989). Within Canada, the outfitting industry accounted for \$411.5 million in sales in 1985, or about 15 per cent of all transactions in respect to recreational fishing (DFO 1989). Fishing packages, marketed by Canadian outfitters accounted for \$267.5 million or about 65 per cent of all

outfitting revenue. Over half of the package sales were made to foreign visitors, mainly from the United States. Manitoba alone recorded \$21.6 million in angling-related transactions, of which \$16.4 million consisted of angling packages. More specifically, the outfitting sector in Manitoba is largely dependent upon United States citizens and, to a lesser degree, other foreigners. The totals of 'specialized' services purchased by foreign anglers in 1985 accounted for an estimated \$15.91 million. Of this total, \$14.32 million were attributed to 'packages' sold by fishing lodges. This figure indicates a marked increase over the \$5.63 million in package plans sold in 1981 (Topolniski and Anderson 1985). During 1981, the Northern remote sectors of the Manitoba lodge industry accounted for \$5.22 million in package sales. Income thus derived from these regions emphasized the importance of having direct access to a quality resource base in a wilderness setting.

The concerns of the recreational fishing service industry have not been well recognized (DFO 1989). Market potentials of the commercial sports fishing industry in Manitoba have been assessed (P.M. Associates 1982) and it was estimated that the demand for lodge facilities should increase by 20% between 1980 and the year 2000. It was anticipated that northern lodge operations would experience the highest growth (25%), based upon anglers seeking higher quality fishing experiences available in more remote areas. Upon further review, P.M. Associates concluded that in view of the anticipated growth of the commercial sports fishing market, there was a need for an analysis of market and resource data to project the industry's future prospects.

Recreational fishing has developed into a multi-dimensional activity

which encompasses biological, socio-economic and political areas of interest and concern. The focus of studies has shifted from economic analysis towards more human-oriented (Hampton and Lackey 1975) and biocentric concerns (Higgs 1987). As revenues from recreational fishing increase, economic contributions of the industry to the province or nation will be closely linked to investment. This poses a problem for sport fishing managers, in their attempt to harmonize the economic aspects with the social and biological parameters. They will require feedback from resource users in order to project management strategies for future years. An accurate assessment of resource-users should enable fisheries personnel to effectively allocate available resources to maintain angling opportunities and generate economic benefits. This type of management philosophy is well reviewed by Haig-Brown (1980). Haig-Brown states that it is important to recognize two essential perspectives: first, the resource itself - the fish, the waters and the surroundings; and second, the sport, without which the resource could not be said to exist. He further concludes that managing recreational fisheries is, in essence, the management of people.

1.2 Objectives

The main objective of this study was to discern the attitudes and perceptions of lodge operators in Manitoba Sport Fishing Divisions 2 and 3.

Specific objectives of this study were:

1. to compile lodge operators' attitudes toward and perceptions of current marketing considerations and resource-base factors that are

essential in attracting clientele;

2. to evaluate the marketing and resource-management considerations, and to establish what factors constitute constraints to industry viability; and

3. to make recommendations with respect to a future management strategy for the industry, taking into account lodge operators' attitudes and perceptions.

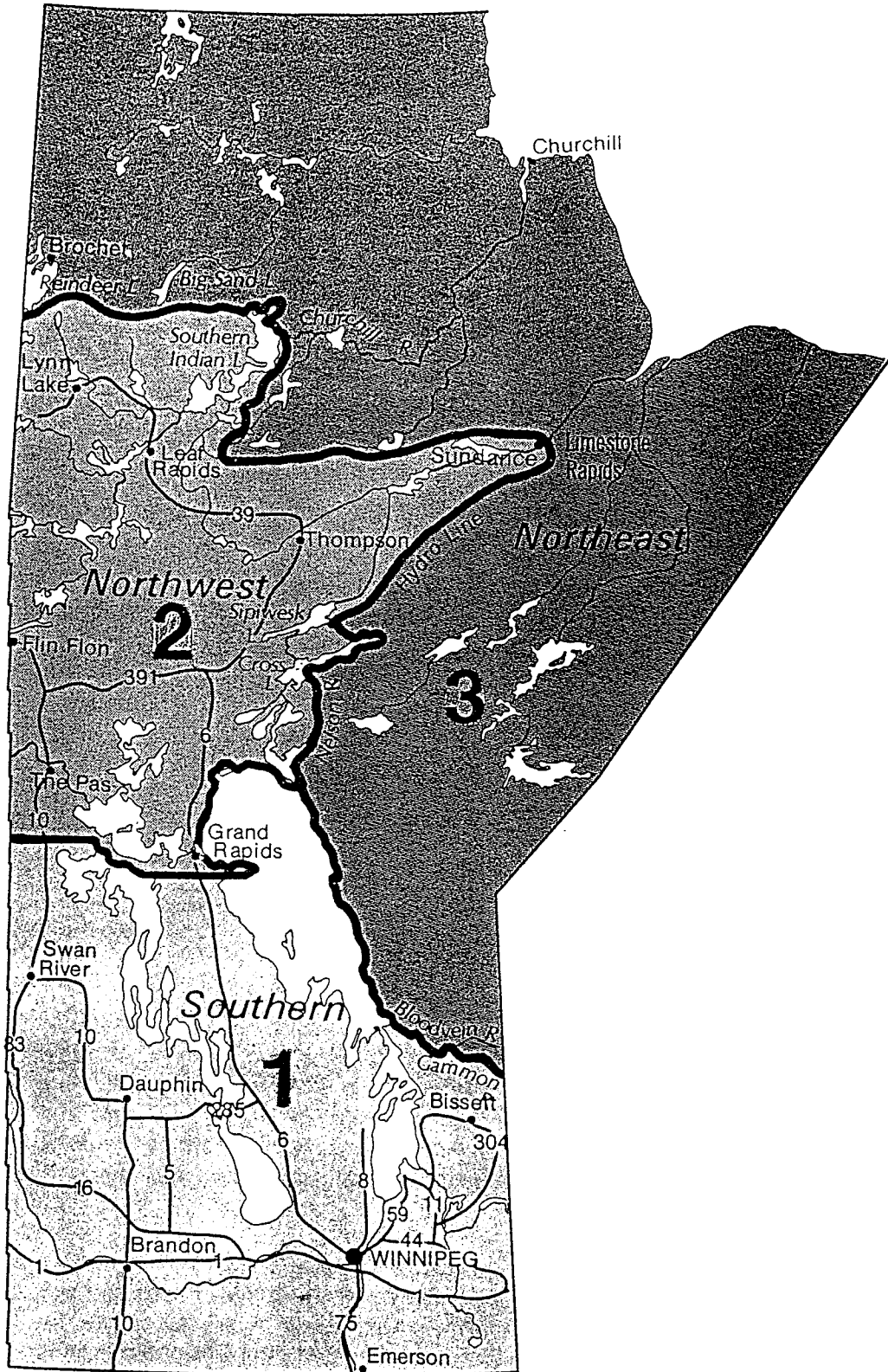
1.3 The Study Area

The study area comprises Manitoba Sport Fishing Divisions 2 and 3 (Figure 1). These Divisions are similar in geography and allocation of resources to the sport fishery.

The study area lies within the Precambrian Shield. There is some dispersed overlay of glacially-deposited debris. Glacially excavated depressions created the random dispersion of lakes which together with rock outcrops, moraine, bogs, and limited to sparse coniferous forest, characterize this landscape. Access is achieved by road and/or air.

Division 2 comprises an area of northern Manitoba that is accessible via PTH 10 to The Pas and Flin Flon, and via PTH 39 and 6 northeast to Thompson. Branching out northeast and northwest from Thompson, PR 280 and 391 provide access to Split Lake and Gillam, and Leaf Rapids and Lynn Lake, respectively.

FIGURE 1: Manitoba Sport Fishing Divisions.



SOURCE: Manitoba Department of Natural Resources, "Sport Fishing in Manitoba, 1989".

In spite of their location, road access-dependent operations in Division 2 are still in a sense remote, as they are from 600 to more than 1000 kilometres beyond Winnipeg. Still, commercial flights of generally one hour from Winnipeg to The Pas or Thompson provide access to this relatively undeveloped region of the province.

Division 3 encompasses the entire northern portion of Manitoba to the District of Keewatin border, eastward to Hudson Bay, and the East Lake Winnipeg region. Lodge operations within Division 3 are classified as remote because there are no roads in this undeveloped and relatively unpopulated part of the province. Access is by connecting float-plane flights from the northern centres previously mentioned, and from smaller centres in the eastern region. As well, direct charter flights from Winnipeg access several operations with private air-strips.

Irrespective of differences in location and accessibility, lodge operators have maintained an emphasis on high-quality angling. Still, these factors affect the resource profile of each Division. Manitoba's Department of Natural Resources (Manitoba 1989) suggests that the fishery resource base in Division 2 is relatively small, due to a long established commercial-net and sport-fishing industry and few conservation practices. Division 3 has ample sport fishing potentials because of the greater area and the generally limited pressure on the resource base due to inaccessibility. Thus, location and access serve as important components for analysis and comparison of the marketing considerations and resource use policies of these operators.

Chapter II

REVIEW OF RELATED LITERATURE

2.1 General Trends in Sport Fishing in Manitoba

Two categories of licensed sport anglers; resident and non-resident/commercial, are prevalent in Manitoba. About 80% of fishermen are resident anglers who live in Manitoba and other parts of Canada, who qualify for 'resident' licences. Non-resident/commercial anglers are those who live outside Canada and who use commercial facilities such as sport fishing lodges (Manitoba 1989). Resident anglers under 16 and over 65 years of age may sport fish in Manitoba without a licence. Non-resident anglers 65 years and over require a licence. Together, the categories of sport anglers represent an important recreational and economic activity in Manitoba. Results of 1975, 1980 and 1985 nationally and provincially coordinated sport fishing surveys validate this point.

Although licence sales have remained steady, anglers have been spending more money while also doing more to conserve fish resources by releasing a larger proportion of their catch (Table 2).

TABLE 2 SPORT FISHING TRENDS

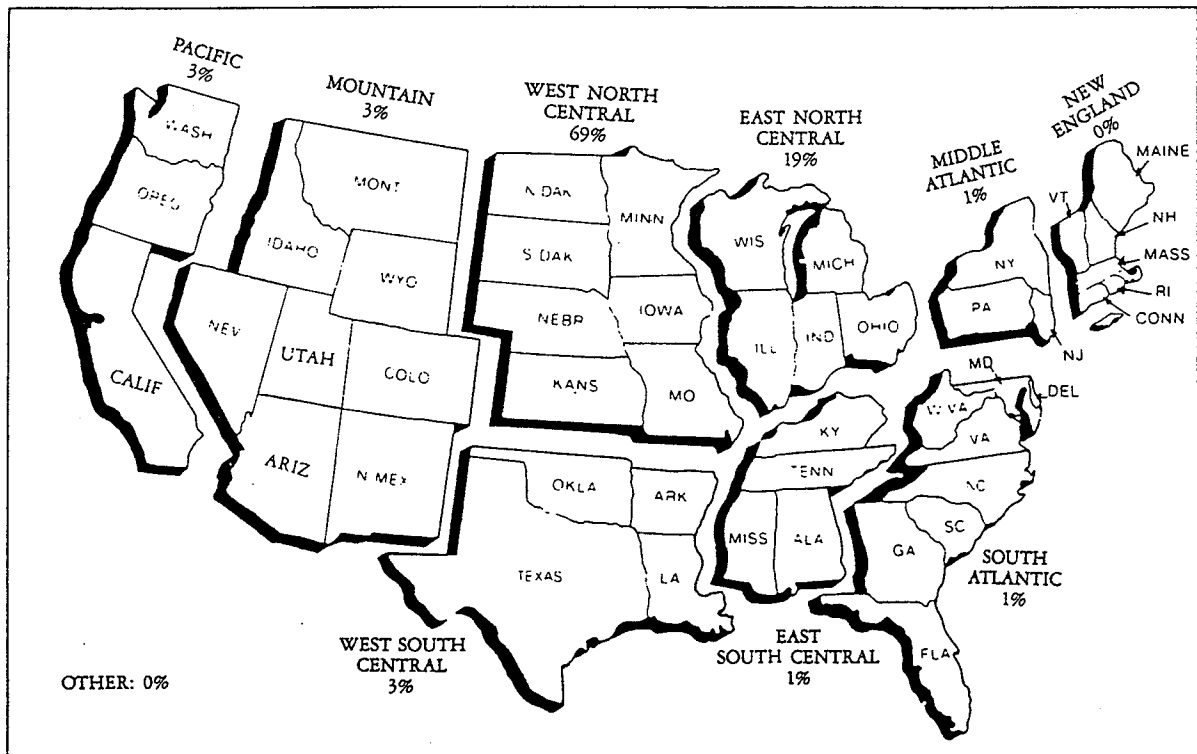
	1975	1980	1985
Number of Licensed Anglers	178,909	195,800	187,172
Angling Effort (days x millions)	2.5	2.9	2.7
Catch (no. x millions)			
Number of Fish Caught	8.4	10.7	9.6
Number of Fish Kept	4.9	5.6	4.3
Percentage Released	42%	48%	55%
Total Expenditure (\$ millions)*	193.0	196.0	283.0

*(Consumer Price Index (CPI) July 1991, all items)

Source: DFO "Sport Fishing in Manitoba" Surveys From 1975 to 1985.

Of the 187,172 licensed anglers in 1985, 78% (146,863) were residents of Manitoba. Of the 40,309 non-resident anglers, only about 19% were Canadians, mainly from Saskatchewan, Alberta and Ontario (Manitoba Department of Natural Resources 1988a). The majority of non-resident anglers were American citizens who came, for the most part, from the West and East North Central regions of the United States (Figure 2).

FIGURE 2: Regional distribution of United States residents who held Manitoba licences in 1985.



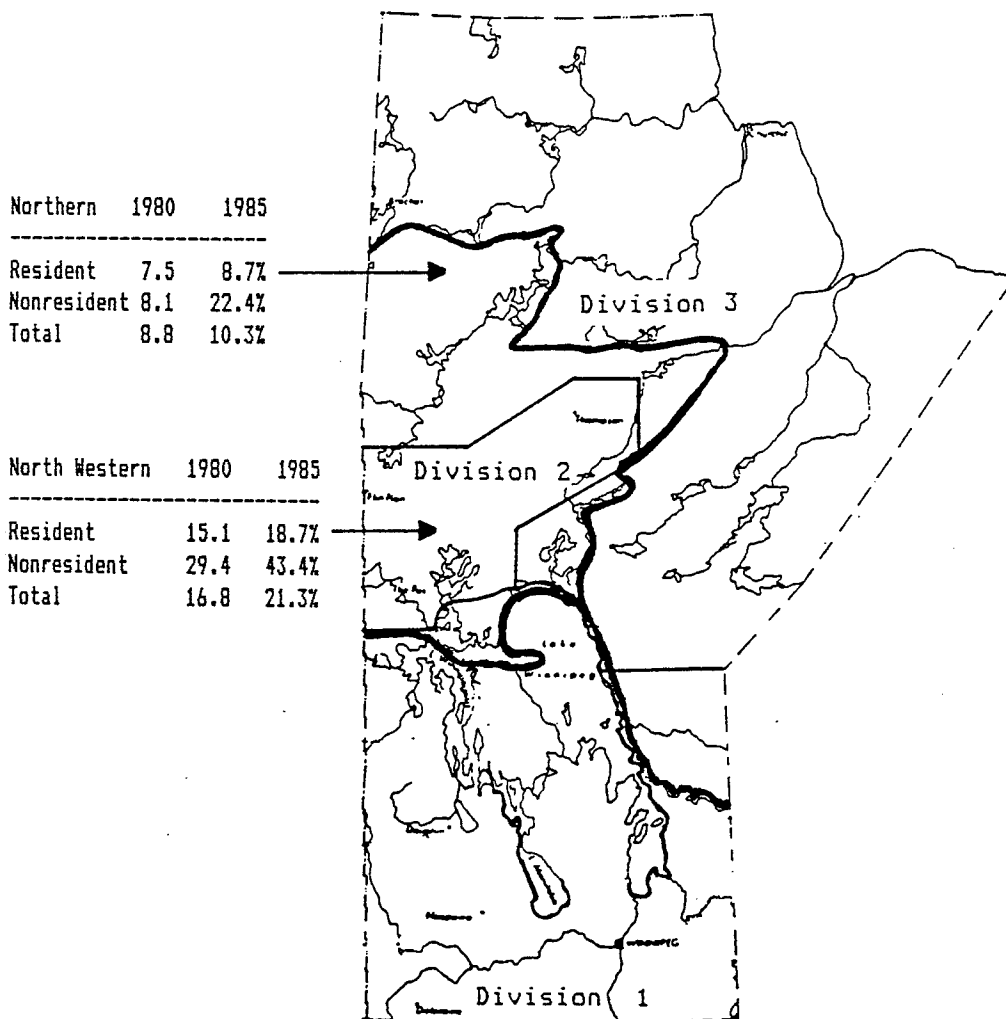
SOURCE: Department of Fisheries and Oceans "Sport Fishing in Manitoba, 1985".

Angler effort declined from 2.9 million angler days in 1980 to 2.7 million in 1985. Licensed residents averaged 17.7 angler days in 1985, compared to 7.4 days for non-residents. Although 68% of the total angling effort occurred in Division 1, 66% of non-residents went North to fish. Green and Derksen (1984) have suggested that to achieve greater angling success, an ever-increasing shift of angler preference for northern Manitoba lakes has occurred since 1967. The reasons are probably twofold: first, the prospect of angling success is perceived to be greater in the north due to decreased angling success in the south, and second, better roads and access to northern lakes, or to a combination of these and other factors (Green and Derksen 1984). For comparative analysis, Green and Derksen divided the Divisions into sections. The Northwestern and Northern sections each experienced an increase in activity from 1980 to 1985. This movement is confirmed by a comparative analysis of the 1980 and 1985 sport fishing survey results for percentage of angler-days expended by anglers in each fishing Division (Figure 3).

Harvest data from the five-year interval surveys indicate that the number of fish caught decreased from 10.7 million in 1980 to 9.5 million in 1985. The actual number of fish kept also decreased in 1985 to the lowest level of the three survey years. The proportional reduction in the catch retained is more clearly revealed by the catch-and-release data. The percentage of catch released rose from 42% in 1975 to 55% in 1985. In general, these figures indicate that anglers are more concerned with conserving limited fish resources than they were in the past.

Anglers also appear to be more conscious of their fishing environment. Resident and non-resident anglers alike respectively, listed 'water quality' and 'natural beauty' as the two most important factors that contributed to their enjoyment of sport fishing in Manitoba (MDNR 1988a).

FIGURE 3: Percentage of angler days expended by resident, nonresident, and total anglers in Manitoba, during 1980 and 1985.



SOURCE: Department of Fisheries and Oceans "Sport Fishing in Manitoba, 1980 and 1985".

The sport fisheries of Manitoba contribute considerable revenue to the provincial economy. Total expenditures by resident and non-resident anglers has steadily increased despite a reduction in license sales (Table 3). (License-exempt junior (<16) and senior (>65) resident anglers doubtless account for some part of this trend.)

 TABLE 3 EXPENDITURES BY LICENSED ANGLERS IN MANITOBA

Year	Anglers ('000s)		Total Expenditures (\$ millions)*
	Resident	Non-Resident	
1975	160.4	32.5	193.0
1980	160.1	35.8	196.0
1985	235.6	67.7	283.0

 SOURCE: Summary of Department of Fisheries and Oceans
 "Sport Fishing in Manitoba" Surveys From 1975 to 1985.

* CPI July 1991, estimates on all items.

Total expenditures by anglers have increased from \$196.0 million in 1980 to \$283.0 million in 1985. Resident anglers invested significantly more on major durables and investments such as boats and property, than on day-to-day expenses (MDNR 1988a). Non-resident anglers continued to spend more on services directly attributable to sport fishing (MDNR 1988a).

In summary, sport fishing trends in Manitoba reflect a persistent angling effort, with the further emergence of conservation-minded anglers who are willing to spend more of their investment and disposable income on sport fishing. Although angling effort levels vary among the three sport fishing Divisions, both resident and non-resident anglers appear to be placing increasing emphasis on the purely recreational

aspects of their sport, and less on the retained catch, especially of trophy fish. Trends in sport fishing management strategies appear to be similar for each of the three Divisions, in that they seek to lower resource consumption through regulation and public education.

Objectives of the Manitoba sport fishing industry as a whole are: to ensure reasonable levels of recreational sport fishing opportunities for Manitoba residents; and to realize acceptable returns from the sale of licenses to non-resident anglers (Manitoba, Fisheries Branch 1989).

For management purposes Manitoba is divided into three sport fishing Divisions. The management objectives for Divisions 2 and 3 are of importance to this study. Objectives for Division 2, which comprises areas of the North that can be reached by road, include:

- . maintenance of current angling quality and diversity, while continuing to provide opportunities for trophy fishing; and
- . improvement and enhancement of commercial lodge/outcamp operations and facilities.

Objectives for Division 3, which pertain to most fly-in commercial operations, include:

- . sustaining and improving the economic performance and quality of the remote lodge industry by maintaining high-quality trophy fishing; and
- . encouragement of northern communities to assume a more active role in the lodge industry (Manitoba 1989).

In Division 2, a demand-supply imbalance exists for specific lakes where long-established lodge developments and tourism-related investment, paralleled by commercial net-fishing, have exceeded the

resource's carrying capacity. Efforts have been made to provide increased angling opportunities through restocking of preferred species and encouraging the harvest of underutilized species. The future viability of lodge operations in this Division will depend upon resource conservation practices and the extent to which resource-access can be expanded by developing outcamps on outlying lakes (Manitoba, Fisheries Branch 1984a). Most of the new lodge operations have been constructed in Division 3. Potential for additional lodge development will depend upon commercial net-fishing and market demand for sport fishing. The future of the 'remote' industry will depend upon two factors: (1) the availability of trophy fish; and (2) success in providing a wilderness experience (Manitoba 1984a).

The management strategies for each Division are similar, in that they seek to conserve the fishery resource base. From 1982 to 1990, the Department of Natural Resources recognized growing concerns in respect to diminishing fish populations. To preserve the fishery and in an attempt to keep pace with the level of development and investment, a number of conservation-oriented management practices have been implemented. From 1982 to 1990 in Divisions 2 and 3, maximum retention-size limits on specific species, intensified management of specified lakes, and reduced daily catch limits were first implemented. Regulations have become more specific and encompassing:

- . reductions in daily catch limits;
- . reductions in maximum retained-fish size limits;
- . introduction of retained-fish slot limits (upper and lower length restrictions in respect to each species);

- . increased number of High Quality Management (HQM) lakes and rivers (reduced limits for certain species);
- . extended seasonal closures;
- . province-wide use of barbless hooks only, as of 1990.

Having recognized the interconnection between the extent of fisheries resources and their investments, lodge operators have advocated conservation regulations that will provide for greater control over the methods and levels of harvest in waters that have been allocated to them. In addition to the established regulation changes, they have voluntarily applied to the Manitoba Fisheries Branch for the implementation of conservation techniques such as:

- . one-retained-trophy-only policies;
- . no-kill trophy recommendations;
- . use of barbless and single hooks; and
- . no-kill (strictly catch-and-release).

These stricter regulations limit the number of fish that anglers may retain, but do not diminish angling opportunities. The underlying goal of fisheries regulations will be to strive for a balance between more distinct regional and lake-specific management objectives and the user's ability to cope with more complex regulations. Challenges for the Manitoba Fisheries Branch will be to ensure that fish resources will continue to be able to meet the expectations of sport fishermen as remote areas of Division 2 become more accessible, and to encourage expansion of the lodge industry in Division 3 while ensuring that the resource base is fairly and sensibly allocated between commercial and non-commercial interests (Manitoba 1989).

Successful implementation of proposed fisheries regulations will be difficult if user groups strongly oppose them. Angler preferences in respect to regulations appear to depend upon the individual's level of dedication to the sport (Renyard and Hilborn 1986). It also depends on biological potential, public information, and enforcement, as well as on differentiation of the needs of angler subgroups (Chipman and Helfrich 1988). Chipman and Helfrich suggest that a recreational specialization framework can provide a logical means of identifying angler subgroups and illustrate how these groups view the fishery resource and the angling experience. They imply that for many situations, three general angler groups could be distinguished; occasional, generalist, and specialist.

Occasional anglers seek escape from the work place, fish infrequently, place emphasis on activity with family and friends, and emphasize luck over skill as a reason for success. These anglers are pleased if they catch a few fish of any size or species and favour liberal harvest rules.

Angling success is a more important objective for generalist anglers than for either occasional or specialist fishermen. As novice anglers become more skilled, reaching the 'creel limit' is of primary concern. A preference for liberal limits supported by fish stocking is viewed by them as an important management tool.

If the acquired skill of anglers advances to a more specialized level, their focus shifts to a conservation of the fishery resource. Skilled specialists generally emphasize angling ability, fish frequently and want fisheries officials to assure a reserve of some trophy-sized

fish of their target species. They are more favourably disposed to restrictive regulations, including high minimum-size limits in respect to retained fish, low possession limits, catch-and-release measures, and strict limits on retention of trophy fish.

Manitoba Fisheries objectives and Divisional regulations for Divisions 2 and 3 have been designed to allow all angler subgroups the opportunity to fish in northern Manitoba waters (Carl Wall pers. comm.). Regulations in respect to Division 2 encourage retention of resource quality through daily limits, possession limits, maximum-size limits and designated High Quality Management waters (reduced possession limits of certain species). Division 3 regulations emphasize sustained trophy capabilities: no-kill (release); one-retained-trophy-only policy; and HQM stipulations. Clients of lodge operations in Divisions 2 and 3 represent all three angler subgroups, but a large percentage of guests are higher-level generalists and skilled specialists in search of a superior angling experience.

Fisheries management objectives and lodge operators' marketing strategies must also consider angler preferences and attitudes. In a review of previous studies, Hampton and Lackey (1975) concluded that many natural resource managers advocated that fisheries output be measured in more human-oriented terms such as satisfaction, which ultimately lead to human benefit. Depending upon the individual, the choice in recreational fishing may be to combine the quest for a preferred species of fish with sociability and the attainment of an improved sense of well-being. The wide range of potential satisfaction emphasizes the importance recreational fishing has in society and may

answer the question "why do people fish"? By definition, the basic purpose of sport fishing is, and always has been, recreation (Tuomi 1982). Reactions to the contrary indicate that sport fishing is not an activity that is free from debate among and between anglers, commercial net-fishermen and, in this case, lodge operators. Clawson (1965), challenges biologists' and social scientists' views of catch-per-unit-effort, by asking the question "...are fish necessary for fishing"?

A review of literature pertaining to angler preferences and demands indicates that the angling experience is a multidimensional activity. Earlier angler surveys (Duttweiler 1976, Hampton and Lackey 1975, Ley 1967, McFadden 1969, Moeller and Engelken 1972) have suggested that the outdoor experience, environmental aesthetics and the sporting challenge were considered to be very important relative to the presence of fish. However, Hampton and Lackey (1975) emphasized that there must be some base-line probability of angling success in order for intangible benefits to be realized. The indicators in respect to fishing enjoyment in Manitoba appear to be consistent with the results of such surveys. Anglers rated factors other than those relating directly to fish more highly, in reference to the total angling experience. From a list of eleven factors, species, number and size of fish ranked seventh, eighth and ninth respectively, (Manitoba 1988).

By comparison, the results of Baur and Rodgers 1983, Hudgins 1984, Hudgins and Davies 1984, Larkin 1988, Stoffle et al. 1987, and Weithman and Anderson 1978, imply that the presence of fish was considered to be very important to the overall angling experience. Still, the relative importance of factors that influence angling quality varies, depending

upon the angler. The species, number, and size of fish caught could, for any individual, make the difference between "good" and "excellent" fishing. The collective angling public may also judge the total on-site experience from an optimum-sustained-yield point of view. Public expressions of 'filling the box' and a 'stringer of fish' provide an indication of angler success, but not the total evaluation of the fishing experience. These views are somewhat at variance with the earlier studies cited, but, they illustrate that the availability of fish is still a primary variable in the recreational angling experience. An indication of this importance to lodge operators in Manitoba could be illustrated by the ever-increasing shift of angler preferences toward northern lakes and rivers in order to achieve greater angling success (Green and Derksen 1984). With reference to the several angler subtypes, it is suggested that anglers will patronize Division 2 and 3 lodge operations to exploit their angling potential and the environmental aesthetics of the north. Overall perceived angling quality at such lodges may also be influenced by the variables of angling success, environment and people. Therefore, the question of 'how many fish are required to make a successful trip while at a lodge?' appears to be unanswerable, because of the variability between and within angler subgroups and their preferences and attitudes. Angling is a very personal experience.

2.2 Profile of the Northern Manitoba Lodge Industry

The most recent examination of Manitoba's lodge industry was conducted in 1981 through a joint study by the Manitoba Departments of

Business Development and Tourism, Natural Resources, and the Federal Departments of Regional Industrial Expansion, and Fisheries and Oceans (Topolniski and Anderson 1985). The primary objective of the study was to estimate the economic impact of Manitoba's lodge industry on provincial and national economies. A related purpose of the research was to provide industry impressions of existing levels of resource use and resource management policies that are factors in industry viability. Manitoba Department of Natural Resources (1988b) updated portions of the existing regional data to 1988 financial and occupancy rate totals. Financial estimates were corrected to the 1991 Consumer Price Index.

2.2.1 Numbers and Capacity

From 1981 to 1988, lodge operations in the Northern and East Lake Winnipeg regions increased (Table 4). Remote lodges of the Northern region established the largest increase (16). Associated with this increase, total bed capacity expanded by 33.7% in the Northern region and 14.9% in East Lake Winnipeg (Table 5).

TABLE 4		NUMBER OF LODGES		
	<u>1981</u>	<u>1988</u>	<u>%</u>	<u>CHANGE</u>
Northern Region				
Road Accessible	20	23		+15.0%
Remote	24	40		+66.7%
Total	44	63		+43.2%
East Lake Winnipeg				
Remote	9	12		+33.3%

SOURCE: Manitoba Department of Natural Resources Update of Economic Survey Data, 1988

TABLE 5 BED CAPACITY OF MAIN LODGES AND OUTCAMPS

	<u>1981</u>	<u>1988</u>	<u>% CHANGE</u>
Northern Region			
Main Lodge	1,318	1,743	+32.2%
Outcamp	208	298	+43.3%
Total	1,526	2,041	+33.7%
East of Lake Winnipeg			
Main Lodge	294	330	+12.2%
Outcamp	94	116	+23.4%
Total	388	446	+14.9%

SOURCE: Manitoba Department of Natural Resources Update of Economic Survey Data, 1988

2.2.2 Services

Northern Manitoba and East Lake Winnipeg lodges are generally fishing and hunting facilities. Fishing is a primary activity at these lodges, as noted in the expanded range of services listed in Table 6. Operators have expanded their services to cater to corporate/conference and naturalist/outdoor adventure markets. In 1988, eight road accessible and five remote lodges in Northern Manitoba and one remote East Lake Winnipeg lodge had convention/banquet facilities. New establishments incorporated licensed dining and cocktail lounges. As well, corporate clients were influenced by the availability of commercial jet access ten of the 40 remote lodges in Northern Manitoba and one in the Eastern region had developed private airstrips capable of accommodating smaller commercial jets and turbo-prop aircraft.

 TABLE 6 ADDITIONAL SERVICES PROVIDED BY LODGES IN NORTHERN MANITOBA
 AND EAST LAKE WINNIPEG (1988)

Service	Northern Manitoba		East Lake Winnipeg
	Road Accessible	Remote	
Unlicensed Dining	9	21	7
Licensed Dining	3	5	-
Unlicensed Restaurant	3	-	1
Coffee Shop	5	-	-
Cocktail Lounge	2	2	-
Beer Vendor	1	3	-
Conventions/Banquets	8	5	1
Wheelchair Access	3	2	2
Sauna	1	2	-
Store	12	12	3
Beach	11	13	5
Boats, Canoes	20	33	12
Motors	20	33	12
Gas, Oil	19	33	12
Guides	20	31	9
Dock	19	30	11
Boat Launching	19	7	2
Camping Area	7	1	-
Fish Processing	21	32	11
Game Processing	9	11	3
Tackle, Bait	20	29	10
Fishing Licences	19	26	12
Hunting Licences	10	11	4
Fly-Out Service	9	25	7
TOTAL LODGES	22	34	12

SOURCE: Manitoba Department of Natural Resources update of Economic Survey Data, 1988.

2.2.3 Occupancy Rates

Seasonally in 1981, Northern region lodges used 35% of their total bed capacity, while in the Eastern region, the capacity utilization rate was 23% (Table 7). Since the majority of lodge guests were non-residents, occupancy trends were estimated through a review of non-resident fishing licences sold from 1980 to 1987 (Table 8). Overall, during this time period, non-resident licence numbers remained

relatively stable. Consequently, the number of available beds had increased by over 30%, amounting to greater competition for future guests.

 TABLE 7 OCCUPANCY RATES OF LODGES (May - October 1981)

	<u>Potential Guest-Days</u>	<u>Actual Guest-Days</u>	<u>Occupancy Rate</u>
Northern Region	228,541	79,415	35%
East Lake Winnipeg	65,900	15,177	23%

 SOURCE: Topolniski and Anderson, 1985.

 TABLE 8 NON-RESIDENT ANGLING LICENCES, 1981-1987

	<u>Non-Resident Conservation Licences</u>	<u>Non-Resident Licences</u>	<u>Total Licences</u>
1980/81	8,658	32,353	41,011
1981/82	8,439	32,037	40,476
1982/83	3,777	28,561	32,338
1983/84	3,592	29,852	33,444
1984/85	3,443	30,268	33,711
1985/86	10,325	22,239	32,564
1986/87	12,536	21,809	34,345

* Note: Non-resident 3-day licences were discontinued in 1985/86. Non-resident conservation licences were introduced in 1985/86.

 SOURCE: Manitoba Department of Natural Resources,
 Annual Report 1986-87.

2.2.4 Value of Assets

Due to inconsistencies in 1981 data, the value of capital assets for lodges was not calculated by Business Development officials. Instead,

industry officials used the 'rule-of-thumb' principle of assigning a capital cost of \$30,000 to \$50,000 per bed, depending upon the 'star' quality rating, as an estimate in calculating the total cost of establishing a new lodge (MDNR 1988b). This estimate included the cost of construction and options of an American Plan facility, complete with furnishings, boat, motors, kitchen supplies etc. As an example, one of the newly established remote lodges, a five-star facility with 32 beds, private airstrip included, was estimated to cost \$1.2 million. Other top quality remote lodges with airstrips varied from 48 beds, at an approximate cost of \$3.0 million, to a capacity of 28 beds, costing \$2.3 million.

2.2.5 Financial Variations Between Road-Accessible and Remote Lodges

Revenues and expenses for the Northern segment of the lodge industry were estimated by applying the appropriate Consumer Price Index (CPI) for 1991 to the 1988 data (Table 9). The CPI measures the average percentage change in the price of commodities bought by households, or in this case lodge operators. Statistics Canada officials assumed that a change in the CPI was .15 %, thereby increasing the price of commodities over the base year of 1988. Financial estimates present some of the key revenue/cost disparities between the types of lodge operations in the Northern region.

TABLE 9 ESTIMATED AGGREGATE REVENUES AND EXPENSES FOR
NORTHERN MANITOBA LODGES (in thousands of 1991 dollars)*

	Road Accessible	Remote	Total
Gross Income			
Package Plans	\$ 688	\$9,396	\$10,084
Accommodation	745	412	1,157
Outfitting	603	459	1,062
Retail Sales	1078	291	1,369
Miscellaneous	15	13	28
Total	3,130	10,574	13,704
Cost of Goods Sold			
Cost of Retail Goods	1,011	1,340	2,351
Direct Labour	391	2,187	2,578
Transportation	71	2,219	2,290
Property Operation	279	535	814
Energy	277	580	857
Vehicle	56	31	87
Miscellaneous	3	286	289
Total	2,091	7,180	9,271
Gross Profit	1,039	3,393	4,432
Marketing and Administration			
Admin. and General	70	312	382
Marketing	183	494	677
Indirect Labour	67	346	413
Insurance	80	129	209
Leases/Fees/Taxes	121	404	525
Total	523	1,687	2,210
Share Capital/Owners	515	1,705	2,220
Depreciation Allowance	189	944	1,133
Interest-Long Term	95	516	611
Interest-Working	53	112	165
Owners' Share/Net Income	176	132	308

SOURCE: Manitoba Department of Natural Resources Update of Economic Survey Data, 1988.
* Consumer Price Index (CPI) July, 1991 All Items

Remote lodges realized a substantial percentage of their gross income (88.9%) through package plans. The average package plan for 1991 was estimated to be \$2,080 U.S. for one week (including return airfare from Winnipeg or Thompson). Road-accessible lodges realized much of their income from retail sales (34.4%). These lodges tended to operate stores which also catered to casual road travellers.

The next most significant variation between road and remote access operations appeared under Cost of goods sold. Transportation and labour costs, respectively, were the two greatest expense items for remote lodges, amounting to 61.4% of total costs. Retail goods comprised 48.3% of total costs for road-access operations.

Cost of goods sold was estimated at 67.9% of gross income for remote lodges compared to 66.8% for road access operations.

Marketing expenditures and administrative costs between the two types of establishments amounted to 50.4% of gross profit totals for road access operations and 49.7% for remote lodges. However, remote lodges had greater expenses in depreciation allowances and interest payments, which constituted 46.4% of gross profits, compared to 32.6% for road-access operators.

Net income for remote lodges was estimated to be \$132,000 or only 1.3% of gross income, compared to \$176,000 or 5.6% for road-access operations.

2.2.6 Employment

Seasonal employment at northern Manitoba lodges was updated from 1981 data adjusted for the number of lodges existing in 1988. It was

assumed that northern Manitoba lodges employed primarily northern residents. An estimated seven hundred individuals were thought to be employed in seasonal duties (MDNR 1988a). The majority of employees served as guides, housekeeping and kitchen staff. Northern residents have been traditionally involved in commercial net-fishing. The promotion of licensed guides has provided an employment alternative within their value system. As well, northern communities have encouraged establishment of native-operated lodges on lakes traditionally fished by the Indian Bands. Among them are lodge developments at Big Sand Lake, Knee Lake and Kississing Lake.

2.3 Licensing and Tenure of Commercial Sport Fishing Operations

The Manitoba Fisheries Branch combines a series of policies, resource principles, and major issues and opportunities that together form the basis of a management strategy for the resource base. The general fisheries management policy allocates the fish resource in the following order of priority:

- 1) subsistence fishing
- 2) resident angling
- 3) commercial uses, such as commercial fishing, commercial sport angling, bait fishing and fish farming (Manitoba 1988).

The above order of priority among types of use serves as a guideline for allocating a limited resource base where two or more categories of users are seeking to exploit the same resource (Manitoba 1988). Established priorities of allocation for each use are intended as general guidelines for a flexible long-term management strategy.

Allocation priorities are not applied on a lake-by-lake basis. Consideration is given to pre-existing patterns and trends of resource supply and demand on a provincial, regional and local scale (Manitoba 1988). Allocation priorities are not intended to eliminate uses and users of lower priority, unless the resource base is threatened by over-exploitation, or where performance criteria are not met.

In Manitoba, existing commercial users who had prior access to the resource base are recognized as having some form of tenure (Manitoba 1988). In return for continued resource allocation, commercial users must meet specific performance standards. Even with the development of tenure, situations exist where a tiered multiple-use approach allows for a more beneficial use of the resource. The multiple-use approach is not suited to all situations and is therefore considered on an individual basis. A multiple-use approach does create the possibility of real or perceived conflicts between sport angling and commercial net-fishing. Resolution of conflicts between user groups is accomplished through the development of situationally specific lake plans and consultation with individual users regarding use of the resource base.

Manitoba appears to lead other provinces in offering established resort operators assurance - though informal - of tenure and protection against encroachment by new resource users (Pearse 1988). In fact, a recommendation was made to the British Columbia Ministry of Tourism, to consider establishing a freshwater lodge/resort licensing system that is similar to the management plan now in effect in Manitoba (DPA Group and Maclaren Plansearch 1988). The licensing system in Manitoba represents the primary mechanism for allocation of fish stocks to commercial users.

Lodge operations, outfitters and commercial netting are considered commercial consumption uses. Therefore, they compete for the resource base with each other and with subsistence and recreational fishing by residents of the province. Annual licensing of commercial users who meet prescribed standards and criteria can establish and maintain rights of resource access (Manitoba 1988). Although present policy and licensing systems recognize some priority for present users, long-term access to the resource base and the associated security is not assured (Manitoba 1988). Presently, the Fisheries Branch is developing more secure forms of tenure involving certain proprietary rights. The degree of tenure for commercial users will be dependent upon the level of investment that is geared to the resource capacity and value. Further licensing and tenure guidelines are also needed to deal with the allocation of resources between and among user groups, and the transferability of tenure rights between resource users.

To oversee the issuance or suspension of licences to operate commercial sport fishing facilities, a Licensing Advisory Committee (L.A.C.), was established, with representation from the Departments of:

- . Business Development and Tourism;
- . Natural Resources;
- . Health;
- . Northern Affairs;
- . Municipal Affairs; and
- . The Manitoba Liquor Control Commission

(Manitoba Department of Natural Resources 1984a).

A coordinated review of licence applicants by each Departmental representative culminates in a final discussion and recommendation of approval or denial. The general intent of the L.A.C. is to ensure that all tourism developments are consistent with interdepartmental policies, regulations and agreements. Under the general guidelines, lodge operators must be financially viable, compatible with, and not excessively intrusive upon, the carrying capacity of the resource base. Priority is given to the optimum sustained use of the renewable resource base. General priority for approval of development is based upon the following status of applicants:

- . Native Northern Manitobans with existing utilization;
- . Manitobans;
- . Other Canadians; and
- . Foreigners

Capital investment and employment generated as a result of development may modify these priority criteria.

Under the L.A.C. guidelines for tenure, the priority of development and resource tenure, where the capacity permits, are listed in the following order:

- . Lodge;
- . Outcamp;
- . Boat, motor and fuel cache; and
- . Test Fishing - single season.

A permit of tenure is valid for one year and can be extended by written request. Minimal use, or non-use of an approved resource base or facility after two years is cause for cancellation of operational

licences.

Where conditions permit lodge development, one lodge will be approved per body of water, or water system, and that proprietor will be encouraged to expand to the maximum potential of the resource base available. Lodge operators are given first chance to develop outcamps on lakes in close proximity to their main lodges. Only one outcamp per body of water or water system will be approved to the highest and best use except on native community lakes, where additional outcamps may be desirable.

In summary, the terms and conditions established by the L.A.C. enable lodge operators to assume the responsibility of managing the available resource base. The licensing system provides tenure and assurances that are needed to protect selected fisheries and the substantial investments in buildings, facilities and transport services against encroachment and/or dilution by new resource users.

2.4 Questionnaire-based Research

Questionnaire research is a systematic and objective method of obtaining information which can be used in decision-making (Kinnear and Taylor 1979). Questionnaires are used to measure attitudes and perceptions of a respondent group (Manson et al., 1983). Variations among individuals' attitudes and perceptions are particularly relevant to planners and policy makers (Sewell 1971). Moreover, an understanding of the operative terms is important in developing a relevant questionnaire (Mason et al., 1983). Kinnear and Taylor (1979) clearly describe attitude in terms of three components: (1) the cognitive

component, which refers to the respondent's awareness of and knowledge about some object or phenomenon; (2) the affective component, which refers to the respondent's liking or preference for an object or phenomenon; and (3), the behavioral component, which refers to what the respondent has done or is doing.

Perception is concerned with the impression an individual has of an object or phenomenon (Schiff 1971). An impression is further modified by the individual's past experience and his/her physical, emotional and mental state at the moment the object or phenomenon is encountered. Schiff (1971) suggests that perceptions may also be a function of the value of the object or phenomenon to the individual. He also proposes that perceptions may or may not have effective cognitive components, as they are narrower in scope, less stable and more subject to change than attitudes.

Design of a questionnaire will generally depend upon the method of contact. Three basic methods of contact are available: 1) personal interview; 2) telephone interview; and 3) mail-out survey. Various combinations of these approaches may be incorporated into the data-collection strategy. Selection of the particular method of contact is based upon anticipated response rates, logistics, sampling constraints and overall costs. In a review of survey techniques, Yu and Cooper (1983) confirmed that personal interviews averaged the highest response rate at 81.7%, followed by telephone interviews at 72.3% and mail surveys averaging a response rate of 47.3%.

Of the three procedures, the personal interview method is the most effective. The interviewer controls the process by clarifying the

questions, and may induce responses to avoid unanswered questions. Questionnaires used in this method can be complex, highly detailed and contain open-ended questions for exploratory research. However, personal interviews are usually an expensive method of contact because of travelling costs, and they are subject to a high degree of interviewer bias. As with personal consultations, telephone interviews can be controlled and include complex and open-ended questions. Generally, telephone interviews should be less expensive per response than personal interviews because the interviewer is not required to travel. Costs of telephone interviews will vary according to the duration of the interview and charges associated with local or long distance calls. Disadvantages include a lower response rate and interviewer bias, even though respondents are not in face-to-face situations.

Although mail-out questionnaires have limitations as a research technique, the review of literature indicated that Fisheries personnel generally opted for this method, since it also appears to have advantages. The disadvantages and advantages of this research method appear below:

Disadvantages

1. Response rates are often lower than in personal or telephone interviews. Generally, a 50% return rate for mail-out questionnaires is considered a good response (Goudy 1978).
2. If non-respondents differ markedly from respondents, the population investigated may result in predictions which are inaccurate and misleading (Filion 1975, Peterson and Lime 1973).

Advantages

1. Mail-out questionnaires are useful in studies where interviewer bias is of concern and where a standardization of responses is preferred (Linsky 1975);
2. Permits contact with persons living in remote areas (Linsky 1975);
3. Elicits response from people too busy for personal interviews (Linsky 1975);
4. The format is generally not as complex as personal or telephone interviews, as respondents are responsible for the interpretation of each question (Kinnear and Taylor 1979); and
5. Allows for constructive research at reduced costs (Dillman 1978).

2.4.1 Questionnaire Form

Self-administered questionnaires are essentially constructed around closed and open-ended questions. Closed questions have a fixed number of possible responses from which the respondent must choose. In contrast, open-ended questions provide space for the respondent to fill in his/her answer. For the most part, closed questions are more appropriate for self-administered questionnaires and open-ended questions for personal interviews (Kinnear and Taylor 1979). However, open-ended questions may be appropriate for exploratory research carried out in mail surveys, thereby allowing respondents an opportunity to express their attitudes and perceptions of issues in addition to the possible closed-question alternatives. As well, a popular technique for eliciting respondents' attitudes in self-administered questionnaires is Likert's method (Mason et al., 1983), which presents respondents with a gradient of choices between two extreme viewpoints, in terms of the extent to which they agree or disagree with a statement related to the attitude in question (Kinnear and Taylor 1979). With respect to the

number of questions, it is generally deemed advisable to keep the questionnaire as concise as possible to retain the attention of the respondent (Linsky 1975). The researcher will have to consider the questionnaire format against the quality of data collected. Thus, the combination of response rates, logistics, sampling constraints and costs will determine the method of contact selected.

2.4.2 Stimulating Responses

Recognizing the desirability of obtaining a high response rate to mail questionnaires, researchers focus directly on several response-inducement techniques. These procedures intend to increase response rates by making it easier for the respondent to reply and by making recipients more aware of having received the questionnaire. Several considerations were suggested by the literature (Brown and Wilkins 1978, Jolson 1977, Linsky 1975, Vocino 1977).

- . A comprehensible questionnaire;
- . Types of mailing for outgoing and return envelopes (prepaid, commemorative postage);
- . Precoded questionnaires and assurance of anonymity;
- . Covering letters and follow-up reminder letters;
- . Personalization;
- . Emphasis to the respondent, of the importance of his/her participation; and
- . Specific reference to sponsoring organizations (such as Governmental Departments, Sierra Club, Isaac Walton Society, etc.)

Chapter III

METHODOLOGY

3.1 Methods

Data for this study were primarily assembled from responses to a questionnaire, as well as from a review of sport fishing information from a wide range of sources. The questionnaire used in data collection is provided in Appendix A. The additional sources of evidence are summarized below.

3.1.1 The Questionnaire

The questionnaire form was designed to gather attitude and perception data from a purposive sample of lodge operators and outfitters in Sport Fishing Divisions 2 and 3, through contact by direct mail. Sport fishing operators and outfitters were asked to provide information on:

- operational characteristics and business intentions;
- current and intended marketing techniques and strategies;
- resource utilization, resource management practices and resource tenure;
- perceptions of constraints to the long-term viability of their operations.
- variations to their marketing techniques and changes to maintain or improve the management of the resource base.

Selection of the direct-mail method of contact was based upon the distribution and accessibility of respondents (Linskey 1975).

The direct-mail method also accommodated time constraints of operators. Generally, operators and outfitters returned to winter residences after seasonal closing of operations. There they compiled the year's results and initiated preparation for a new season of promotion and marketing. Next-season promotion is generally conducted at tourism-related exhibitions, away from their winter residences. The

period prior to promotion was concluded to be optimum for contact, year-end business having been resolved (Jan Collins and Carl Wall pers. comm.). The last week of October, together with November, was determined to be the period when respondents would most likely be free to concentrate on the questionnaire. At this time, the just-concluded season would also still be fresh in the minds of operators and outfitters.

Representatives from each of the following agencies served as a guiding committee for design and conduct of the questionnaire: Manitoba Department of Natural Resources, Fisheries Branch; Manitoba Industry, Trade and Tourism, Departments of Travel Manitoba - Marketing and Promotions; and the University of Manitoba, Department of Geography. After numerous revisions, the questionnaire was pretested to determine if the survey produced the desired information. Questionnaires were encoded to protect the identity of respondents.

Names and addresses were purposively selected from Lodge Operation Sections A, B and C, and the Licensed Outfitters' list, in the 1989 Travel Manitoba Master Angler Fishing Adventures Guide. An initial sample size of 76 potential respondents was chosen. Selection of operators and outfitters was also based upon exclusion of probable closures due to business failure or forest fire damage (Carl Wall pers. comm.). A purposive sample unit of 73 represented, as close as possible, a replica of the entire population. Fifty-nine were lodge operators and fourteen were licenced outfitters.

A personalized covering letter intended to promote response accompanied each questionnaire (Appendix B). Guidelines for its content

were obtained from Brown and Wilkins (1978), Duttweiler (1976), Jolson (1975), Linsky (1975), and Vocino (1977). A postage-paid return envelope was also enclosed to stimulate the return-mail response.

3.1.2 Additional Sources of Evidence

To complete the review of evidence pertaining to the sport fishing sector, information was compiled from the following sources:

- . Interviews with representatives of Manitoba Industry, Trade and Tourism, and Manitoba Business Development and Tourism;
- . Interviews with representatives of Manitoba Natural Resources, Fisheries Branch;
- . Interviews with sport fishing lodge operators;
- . Literature searches of the Sport Fishing abstracts assembled at the Freshwater Institute, Fisheries and Oceans Canada, Winnipeg;
- . Communication with the British Columbia Ministry of Tourism;
- . Communication with the Ontario Ministry of Tourism and Marketing; and
- . Communication with Tourism Saskatchewan, Marketing Division.

Interviews and communication with these representatives provided insights into the marketing activities and resource issues relevant to the respective commercial sport fishing industries. Interviews with industry participants also provided personal accounts of the daily operations, procedures, views on client needs and future viability concerns.

3.2 Data Tabulation and Analysis

Survey questions ranged from simple binary, to nominal and ordinal scaled queries. Two open-ended subjective questions were included. A modified Likert-type scale was used to indicate the degree of importance each nominally-scaled marketing and resource factor received. Response categories ranged from 'very important' to 'not important', with

numerical gradation from 1 to 5. Item scores were standardized in a similar manner to give them equal weight, and totals were summed within each category.

Rank order was obtained by weighing the choices relative to their indicated importance in each category. All responses in the "very important" category were assigned 5 points, with each succeeding category reduced by one, to 1 point for the "least important" category.

Data were analyzed using the Statistical Analysis System (SAS) computer programming package at the University of Manitoba. Given the objectives of the study, a general analysis of factors was provided with one-way frequency tables, indicating the distribution of variable values, cumulative frequency counts, and the percentage of the total number of subjects represented by each value. Two-way cross-tabulation tables indicated combined frequency distributions between two variables to reveal existence of any association. Analysis procedures used were those described by Shaw and Wheeler (1985).

Chapter IV

RESULTS OF THE QUESTIONNAIRE

This chapter presents the response rate and tabulated results of the questionnaire. Data are presented in two discrete sections: marketing considerations and resource utilization factors.

4.1 Distribution and Response Rate

The questionnaire, cover letter and pre-paid return envelope were mailed to seventy-three potential respondents on October 20, 1989. Of these, fifty-nine were lodge operators and fourteen were licensed outfitters. Thirty-five completed questionnaires were returned, giving an initial response rate of 48%. A second copy of the questionnaire, pre-paid return envelope and reminder cover letter were mailed to thirty-eight previously contacted non-respondents four weeks after the initial mailing. This elicited another ten responses, for a combined total of forty-five, and an overall return rate of 62%.

4.2 Operational Characteristics

The survey questionnaire began with questions regarding operational characteristics.

Services

Respondents indicated that clients' fishing experience was the primary focus of their operations (Table 10).

TABLE 10

TYPES OF SERVICES OFFERED

Services	% of Operations Offering	No. of Operations
Fishing Experience	100%	45
Wilderness Experience	47%	21
Corporate Business - Vacation	44%	20
Other Recreational Activities	33%	15
Other (Hunting)	24%	11

TOTAL N = 45 OPERATIONS

Eleven of the 45 operations provided sport fishing opportunities only. Two establishments listed the corporate business-vacation market as their leading target. The remaining 32 operations also targeted other interests incidental to the fishing experience. Four establishments provided the entire range of recreational opportunities related to fishing. None of the four catered also to hunters.

Accommodation

The operations generally offered more than one type of accommodation to their clients (Table 11). Most common were outpost camps (71%) providing guides, boats, tent/cabin accommodation, fully equipped kitchens, prepared meals, hot/cold water, showers, outdoor privy, freezing and shipping services, etc.

TABLE 11 LICENSED ACCOMMODATION FACILITIES

Facilities	% of Operations Offering	No. of Operations
Outpost Camps	71%	32
American Plan	60%	27
Housekeeping	42%	19
Trailer/Tent Sites	15%	7
Other	9	4

TOTAL N = 45 OPERATIONS

Only 12 of the 45 operations offered a single type of accommodation only. Of these, five operated as outpost camps, three as housekeeping facilities. All required guests to provide their own bedding, food and beverages. The remaining four offered the American plan only: guides, boats, tackle shop, modern accommodations; double beds, showers, private flush toilets, daily maid service, laundry, licensed dining room, all meals prepared, conference and lounge facilities, spacel telephone, fax machines, etc.

Nearly half (n=21) of all responding establishments were American plan / outpost camps combined, while 13% (n=6) also catered to "housekeeping" clients.

Access

Of the 45 operations, 31 were "remote", accessible by aircraft only. Thirteen were also accessible by road and one operation had access by road combined with a final stage by water.

The types of services and facilities available, based on access-

mode, are listed in Table 12. Remote access operations have the highest number of outpost camps, mainly because they are sub-camps of the main facilities.

 TABLE 12 TYPES OF SERVICES AND FACILITIES
 ASSOCIATED WITH ACCESS

Types of Service/Facility	Access		
	Remote	Road	Road-Boat
Angling Experience	31	13	1
Wilderness Experience	16	4	1
Corporate Business - Vacation	15	5	0
Other Recreational Activities (ie.) canoeing, hiking, photography	12	3	0
Accommodation Facilities			
Outpost Camps	25	7	0
American Plan	23	4	0
Housekeeping	8	10	1
Trailer/Tent Sites	0	7	0
<u>Other</u>	<u>3</u>	<u>1</u>	<u>0</u>

TOTAL N = 45 OPERATIONS

Length of Operation and Months Occupied

The majority of operations (nearly 60%) had been under the current management for five or more years (Table 13).

Years	NUMBER OF YEARS IN OPERATION		
	Access		
	Remote	Road	Road-Boat
0 - 4	16	2	0
5 - 9	6	1	0
10 - 15	5	3	0
16 - 40	3	7	1

TOTAL N = 44 OPERATIONS

Forty-one percent (n=18) of the operators had managed their operations for 10 years or more. However, an equal number had been under the current management less than five years. Of the 18 establishments that have been in operation for less than five years, 16 were remote-access.

The period of operation was generally concentrated within a Spring-to-Fall season whose length depended upon the climate and latitudinal location. During the 1989 season, 26 (50%) of the operations opened in May, 13 in June (Table 14). One outfitting operation opened in September. Four lodges remained open year'round. The majority of operations closed for the season toward the end of September. The others concluded their seasons in October, except for the outfitter catering also to hunters, who closed in December.

TABLE 14

PERIOD OF OPERATION

Month	No. of Operations	
	Open	Close
May	26	0
June	13	0
July	0	1
August	0	0
September	1	20
October	0	18
November	0	0
December	0	1
All-season	4	0
Total Respondents	44	

Occupancy rates attained the highest average in the month of June (82%) (Table 15), with July at 56% and May at 47%. Both single-and-multiple-product facilities experienced the same peak periods of occupancy. However, multi-product operations averaged higher occupancy rates in these three months than the single-product facilities. Occupancy rates in multi-product operations averaged 58% during the principal operating months of May to September, compared to 48% for the single-product facilities. May-July represented the peak period for both all-year and seasonal operations.

TABLE 15 SEASONAL DISTRIBUTION OF ACTIVE OPERATIONS

MONTH	MULTI-PRODUCT		SINGLE-PRODUCT		TOTAL	
	No.*	%	No.*	%	No.*	%
May	19	51	9	39	28	47
June	27	85	12	75	39	82
July	27	61	11	46	38	56
August	25	49	9	39	34	46
September	26	42	11	27	37	38
October	10	43	4	16	14	35

TOTAL OF 40 RESPONSES

* number of operations open and reporting occupancy rates

4.3 Client Prospectus

Client Age

The typical client was between 31 and 49 years of age. Forty percent (n=25) were 50 years or older (Table 16).

TABLE 16 CLIENT AGE GROUP

Age in Years	Average %	No. of Responses
Under 16	2%	1
17 - 30	2%	1
31 - 49	56%	35
50 - 64	35%	22
65 and over	5%	3
TOTALS	100%	62

Number of Clients

Operators were asked to approximate the number of clients that were served during the 1989 operating season. Totals were categorized as shown in Table 17.

TABLE 17 TOTAL NUMBER OF CLIENTS / SEASON

<u>No. of Clients</u>	<u>Category as % of total</u>	<u>No. of Responses</u>
10 - 50	8	3
51 - 99	12	5
100 - 250	22	9
251 - 500	35	14
501 - 900	15	6
Greater than 900	8	3
<hr/>		
TOTALS	100%	40

A crosstabulation of combined frequency distribution for the number of clients and access was analyzed to determine existence of any association. The range of 251-500 seasonal clients described 10 remote- and four road-access operations (Table 18). These data were further analyzed using a Cramer's V test to determine a possible correlation between the total number of clients and years in operation. A calculated coefficient value of +.35 indicated a limited degree of correlation between the two variables. Some operations serving a greater number of clients reported fewer years in operation. Therefore, the hypothesis of a correlation has been proven incorrect.

TABLE 18

CLIENT / ACCESS CORRELATION

NO. OF CLIENTS	ACCESS		
	REMOTE	ROAD	ROAD-BOAT
10 - 50	2	1	-
51 - 99	5	0	-
100 - 250	6	2	1
251 - 500	10	4	-
501 - 999	5	4	-
TOTAL N = 40	28	11	1

Market Origin

All responding operations reported that United States residents accounted for most of their market (83%). Next in order of importance were residents of Manitoba (11%), other Canadian residents (5%) and Europeans (1%) (Table 19).

TABLE 19

CLIENT / MARKET ORIGINS

CLIENT ORIGIN	AVERAGE % OF MARKET	OPERATIONS SERVING CLIENTS FROM:
United States	83	43
Manitoba	11	29
Other Canadian Provinces	5	20
Europe	1	12
Other	0	0
TOTALS	100%	No. of responses = 43

When separated by mode of access (Table 20), these rankings remained the same.

TABLE 20 CLIENT ORIGIN / OPERATIONAL ACCESS

CLIENT ORIGIN	Remote		Road		Road/boat	
	No.*	%	No.*	%	No.*	%
United States	30	90	13	68	1	100
Manitoba	18	10	11	23	0	0
Other Canadian Provinces	12	8	8	14	0	0
Europe	9	4	3	6	0	0
Other	0	0	0	0	0	0

TOTAL OF 43 RESPONSES

* number of operators responding

Operators were also asked to state the percentage of first-time clients among the total number served (Table 21). The majority of operators indicated that 21-40% of their clientele were first-time visitors. Well over one-third of the operators listed their percentage of first-time clients at 20% or less. Continuing on this theme, almost 70% of responding operators implied that 40% or fewer of their clients were first-time visitors. The results indicated that repeat business was of key importance to operators.

TABLE 22

CLIENT ATTRACTION FACTORS, AS EXPRESSED BY OPERATORS

FACTORS	VERY IMPORTANT	MODERATELY IMPORTANT	NEUTRAL	NOT VERY IMPORTANT	NOT IMPORTANT	NO OPINION	NO. OF RESPONSES
Abundance of fish resources	80	20	0	0	0	0	45
Opportunity to catch large (trophy) fish	65	31	4	0	0	0	45
Amenities of the lodge/camp	47	31	18	4	0	0	44
Location	38	38	15	2	7	0	44
Scenic beauty	27	29	29	9	4	2	45
Wilderness experience	23	39	20	7	9	2	44
Master Angler Program	20	25	13	13	20	9	45
Opportunity to catch 'rare' species	25	14	23	13	25	0	45
Advertising efforts of Travel Manitoba	18	20	20	11	22	9	45
Other recreational activities	0	7	32	23	29	9	45

Marketing Targets

The target market was assessed in order to determine the response of potential guests to the marketing efforts of operators. Eighty-nine percent (n=40) of reporting operators focused their marketing efforts on angling enthusiasts (Table 23), with substantial emphasis on corporate business-people/anglers (69%)(n=31).

TABLE 23

TARGET MARKET OF CLIENTS

TYPE OF CLIENTS	AVERAGE %	NO. OF RESPONSES
Angling enthusiasts	89	40
Corporate business-people/ anglers	69	31
Vacationers	40	18
Wilderness seekers	37	17
Other (ie. hunting)	11	5
TOTAL N = 45		

Of the 40 operations which targeted angling enthusiasts primarily, 28 were remote-, 11 were road-access, and one a road/boat-access operation (Table 24).

TABLE 24

TARGET MARKET OF CLIENTS / OPERATIONAL ACCESS

TYPE OF CLIENTS	ACCESS		
	REMOTE	ROAD	ROAD/BOAT
Angling enthusiasts	28	11	1
Corporate business-people/ anglers	22	9	-
Vacationers	11	7	-
Wilderness Seekers	15	2	-
Other (ie. hunting)	3	2	-
TOTAL N = 45 OPERATIONS			

Examination of access-mode revealed that 90% of the remote operators targeted angling enthusiasts primarily. Eighty-five percent of road- and 100% of road/boat-access clients were considered to be motivated primarily by their dedication to sport angling. Corporate business-

people/anglers were considered important to road-and remote-access respondents, as indicated by 69% promotional targeting of this group.

4.4 Marketing Considerations of Lodge Operators and Resource Attributes

Operators were asked to identify which product attributes received consideration in the promotion of their operations. Product attributes were identified either with lodge/camp operations or with resources, in order to determine the degree of emphasis accorded them, and their potential correlation with future marketing plans (Table 25).

TABLE 25 MARKETING CONSIDERATION OF LODGE/CAMP AND RESOURCE ATTRIBUTES

ATTRIBUTES OF THE LODGE/CAMP	MOST CONSIDERATION	MODERATE CONSIDERATION	NEUTRAL	LEAST CONSIDERATION	NO CONSIDERATION AT ALL	NO OPINION	NO. OF RESPONSES
Personal Services	56	28	12	2	2	0	43
Accommodation	52	34	14	0	0	0	44
Location	46	39	9	4	0	2	44
Meals	36	21	16	2	14	11	44
Guides	34	25	14	14	9	4	44
Other (management)	75	25	0	0	0	0	4
RESOURCE ATTRIBUTES							
Abundance of fish	77	23	0	0	0	0	43
Large (trophy) fish	70	21	9	0	0	0	43
Wilderness experience	27	29	29	5	5	5	41
Scenic beauty	21	33	35	7	2	2	43
'Rare' Species	20	20	28	10	22	0	40
Other (water quality)	50	50	0	0	0	0	4

From the lodge/camp attributes section, personal services (56%) were identified as the most considered product attribute. Personal services include complete arrangement for the client's trip and overseeing daily operations to ensure guests received personal attention from the staff. Accommodation facilities (52%) were rated next in relative importance. This level of perceived significance suggested that these attribute-variables were interdependent. The condition of accommodation facilities is usually monitored on a daily basis by management personnel. From a marketing perspective, location of the facilities (ie. northern Manitoba, Canada) (46%), meals (36%) and the provision of guides (34%) were deemed to be of moderate importance only.

The abundance of fish was highly emphasized by operators in promoting their operations. This, and the opportunity to catch large (trophy) fish were considered the two most significant resource attributes (77% and 70% respectively). 'Rare' species of fish did not constitute a major promotional element. Few operations have access to species such as brook trout and arctic grayling. However, operators who did, included this aspect as an important promotional presentation of their operations' angling prospects. Apart from angling-related attributes, wilderness (27%) and scenic resources (21%) were only moderately stressed. These results disclosed the level of significance attached to angling prospects when promotional strategies are determined.

Marketing Techniques

From among the promotional techniques listed in Table 26, operators

identified which methods they employed in advertising their operations' attributes. Generally, respondents resorted to several promotional thrusts.

Successful marketing depended heavily on word-of-mouth (93%) and reliance on repeat business (91%). Six operators depended on these forms of promotion alone. One respondent relied strictly on word-of-mouth. Overall success depended primarily upon the individual operator providing his clients with a rewarding experience. This experience was then relayed to friends and associates who shared similar interests and resulted in return visits by the original clients with "recruited" guests.

TABLE 26

MARKETING TECHNIQUES CURRENTLY IN USE

TECHNIQUES	% IN USE	NO. OF RESPONSES
Word of mouth	93	42
Return clientele	91	41
Sport shows	60	27
Master Angler Program	42	19
Sport fishing magazines	40	18
Manitoba Sports Fishing Guide	38	17
Sponsored angler trips	33	15
Self - produced video	29	13
Newspaper ads	15	7

Twenty-seven operators (60%) booked into sportsman/trade shows to pursue direct-contact marketing. A limited number of operators (29%;

n=13) presented videotapes of their operations at sport shows.

The next most widely applied promotional mechanism was Manitoba's Master Angler Awards Program. Forty-two percent (n=19) of respondents viewed official recognition for trophy catches as promotionally significant to their operations as they are to the client. Catch location, date and trophy details are recorded in the Manitoba Master Angler Adventure Guide produced by Travel Manitoba and the Department of Natural Resources. As well, lodge operations and outfitters are listed in the Master Angler Guide. The guide is available to residents and non-residents. Still, only 38% (n=17) of respondents indicated they availed themselves of the Manitoba Sports Fishing Guide as a marketing tool. The guide book includes the Master Angler Award application form.

Respondents preferred media such as sport fishing magazines (40%) to newspapers (15%) because of their more focused readership. They reported placing advertisements in:

- . Corporate Incentive Travel
- . Fishing Facts
- . Field & Stream
- . Gray's Sporting Journal
- . The In-Fisherman
- . North American Fisherman
- . Minnesota Outdoor News
- . Walleye Magazine

The majority of these magazines have established readerships throughout Canada, but their heaviest readership concentration is in the West and East North-Central regions of the United States. Advertisements were placed in New York, Toronto, Chicago and in smaller cities within the North-Central regions of the United States. While few respondents advertised in newspapers, it nevertheless represented a strategy for reaching a wider range of potential clients in highly populated areas.

"Visits" by well-known "television anglers" and syndicated magazine writers were sponsored by one-third of the respondents. These promotional guests would compose an angling segment for a television show or feature article, at the same time promoting the location where the experience occurred. Amenities of the lodge/camp and surrounding resource attributes were visually and graphically illustrated to interested viewers and readers. Sponsorship of such special guests enabled operators to advertise in media which reached a large potential market.

In addition to the listed marketing techniques, the majority of operators used brochures to advertise their operations. Brochures featured resource attributes, amenities and location of the lodges/camps, in a full-colour and/or black-and-white presentation. As a rule the brochures included current prices for vacation packages and general information and suggestions as to bring-along equipment and personal necessities. Brochures were mailed directly to past clients as a reminder, to enhance prospects of a return visit. They were also available as handouts at sport shows. Brochures also acted as a follow-up to contact potential guests through mail and telephone inquiries or by word of mouth. In addition to brochures, some operators developed newsletters which summarized past seasons through items highlighting satisfied clients. Newsletters also announced new developments within the operation and reminded the reader of the rewarding experience to be anticipated. Brochures and newsletters owed their popularity as marketing techniques to their visual impact. They were mailed directly to past and prospective clients, hopefully to become a focus of

discussion by and among them.

Business: Experience and Prospects

With respect to trends in volume of business, respondents who had managed their operations for 5 years or more were polled (Table 27).

Table 27	Trends 1985 - 1989

VOLUME OF BUSINESS	% OF RESPONDENTS AFFECTED

Significantly Increased	24% (N=6)
Moderately Increased	24% (N=6)
No Change	24% (N=6)
Moderately Decreased	16% (N=4)
Significantly Decreased	12% (N=3)

TOTALS	100% (N=25)

Changes to Marketing Techniques

Respondents who had been operating their establishments for five years or more were then asked if they had undertaken any changes in their marketing strategy within this time period. Thirteen of the 25 respondents reported none. Of the other twelve, 10 indicated what modifications they had undertaken:

- . Improved colour brochures (3)
- . Increased magazine advertising (2)
- . Increased presence at sport shows (2)
- . Increased direct contact with clients (1)
- . Provision of promotional trips to syndicated writers and "television anglers" (1)
- . Direct mailing of brochures (1)
- . Increase advertising in other media in place of sport shows (1)
- . Delete attendance at sport shows (1)

() = number of operators

Changes in the numbers of clients and in marketing techniques over the 1985 - 1989 period were crosstabulated. Modifications in the marketing strategy resulted in increases in clientele for 36% (n=9) of the respondents (Table 28).

 TABLE 28 CHANGE IN CLIENT VOLUME VIS-A-VIS ALTERATIONS TO
 MARKETING TECHNIQUES FROM 1985 - 1989 (%)

MARKETING STRATEGY: NUMBER OF CLIENTS	Yes	No
Marketing Intensified: Client Volume Significantly Increased	20	4
Marketing Intensified: Client Volume Moderately Increased	16	8
Marketing Strategy Maintained: Client Volume Stable	8	16
Marketing Effort Reduced: Client Volume Increased	4	12
Marketing Effort Reduced: Client Volume Diminished	0	12
TOTAL: N = 25	48%	52%

Business Prospects

Over three-quarters (78%; n=35) of respondents anticipated that their volume of business would increase during the next five years (1990-1994) (Table 29).

TABLE 29 ATTITUDES IN RESPECT TO FUTURE BUSINESS PROSPECTS

ANTICIPATED TRENDS	% OF RESPONDENTS	ACCESS		
		Remote	Road	Road-Boat
Moderate Increase	49%	61%	23%	-
Significant Increase	29%	36%	8%	100%
No Change	11%	-	38%	-
Moderate Decrease	9%	3%	23%	-
Significant Decrease	2%	-	8%	-
TOTAL: (N = 45)	100%			

Eleven percent (N=5) of respondents considered that their volume would not change. Varying decreases were anticipated by an equal number. Accessibility was a contributing factor in respect to the variations in outlook. All but one remote-access operator and the lone road-boat-access operator anticipated an increase in business. Road-access operators were substantially less optimistic.

Attracting Future Clientele

From among the factors that were deemed important in attracting clientele, operators indicated the three they considered to be the most important in attracting future clientele (Table 30). Of 45 responses, 20% (n=9) identified "abundance of fish resources", the "opportunity to catch large (trophy) fish" and "amenities of the lodge/camp" as the three most important factors.

 TABLE 30 THREE IMPORTANT FACTORS IN ATTRACTING FUTURE CLIENTELE

FACTORS	% RESPONSE	n
Abundance of fish resources Opportunity to catch large (trophy) fish Amenities of the lodge/camp	20.0%	9
Abundance of fish resources Opportunity to catch large (trophy) fish Opportunity to catch unique species	8.9%	4
Abundance of fish resources Opportunity to catch large (trophy) fish Wilderness experience	8.9%	4
Abundance of fish resource Opportunity to catch large (trophy) fish Scenic beauty	8.9%	4
Abundance of fish resources Opportunity to catch large (trophy) fish Advertising efforts	8.9%	4
Abundance of fish resources Scenic beauty Amenities of the lodge/camp	6.7%	3
Abundance of fish resources Opportunity to catch large (trophy) fish Location of operation	4.4%	2
Abundance of fish resources Wilderness experience Scenic beauty	2.2%	1
Abundance of fish resources Wilderness experience Location of operation	2.2%	1
Abundance of fish resources Wilderness experience Advertising efforts	2.2%	1
Abundance of fish resources Scenic beauty Location of operation	2.2%	1
Abundance of fish resources Amenities of the lodge/camp Location of operation	2.2%	1

Opportunity to catch large (trophy) fish		
Opportunity to catch unique species	2.2%	1
Amenities of the lodge/camp		
Opportunity to catch large (trophy) fish		
Wilderness experience	2.2%	1
Scenic beauty		
Opportunity to catch large (trophy) fish		
Wilderness experience	2.2%	1
Other recreational activities		
Opportunity to catch large (trophy) fish		
Wilderness experience	2.2%	1
Amenities of the lodge/camp		
Opportunity to catch large (trophy) fish		
Amenities of the lodge/camp	2.2%	1
Location of operation		
Opportunity to catch large (trophy) fish		
Amenities of the lodge/camp	2.2%	1
Advertising efforts		
Opportunity to catch large (trophy) fish		
Location of operation	2.2%	1
Advertising efforts		
Wilderness experience		
Scenic beauty	2.2%	1
Location of operation		
Wilderness experience		
Amenities of the lodge/camp	2.2%	1
Location of operation		
Amenities of the lodge/camp		
Location of operation	2.2%	1
Opportunity to catch large (trophy) fish		

Totals	100%	n=45

Seventy-eight percent of respondents (n=35) indicated the abundance of fish resources as one of the top three factors. Seventy-six percent (n=34) considered the opportunity to catch large (trophy) fish to also be one of the three most important factors. Forty-two percent (n=19) of

respondents were of the opinion that amenities of the lodge/camp would be the most important non-resource factor in attracting future clientele. Ninety-one percent (n=41) of respondents indicated that their marketing strategies and future operations would be focused upon these three primary factors. Only 9% (n=4) indicated they would expand their marketing strategies beyond the three most prevalently identified factors. It was clear, however, that abundance and size of fish would continue to be the primary selling points in all future marketing plans.

Future Business Intentions

In order to expand the perceived prospects of the industry, respondents were asked to outline their business intentions during the next five years (Table 31).

TABLE 31 FUTURE BUSINESS INTENTIONS

	RESPONSE BY ACCESS-MODE			AVERAGE OF ALL RESPONDENTS	
	Remote	Road	Road-Boat		
Maintain Current Operations	32%	69%	100%	44%	(n=20)
Expand Existing Operations	45%	15%	-	36%	(n=16)
Diversify (recreational services)	10%	8%	-	9%	(n=4)
Offer Different Fishing Opportunities	10%	-	-	7%	(n=3)
Discontinue Operations	3%	8%	-	4%	(n=2)
TOTAL: n = 45				100%	

Forty-four percent (N=20) of all respondents were of the opinion that "maintain current operations" best described their business

intentions during the coming five years. Over one-third (36%; n=16) indicated an intention to expand operations. A few respondents hoped to diversify into recreational services (9%) and to offer a broader range of fishing opportunities (7%). Very few operators would discontinue operations (4%). Of the respondents who intended to remain in business, the majority of road-access operators (69%; n=31), and the road-boat respondent, intended to maintain current operations. On the other hand, a substantial proportion of remote-access operators felt they would expand their operations (45%; n=14) and/or diversify (20%; n=6).

4.5 Resource Utilization

In the previous section, abundance of fish, the prospect of catching trophy and rare fish species were listed as attributes affecting business and overall marketing schemes. Analysis in this section focuses on the impact fish resources have on industry viability. Results of the questionnaire revealed the importance of individual preferred fish species, levels of resource extraction and the relevance these factors had on the quality and quantity of the fish resource base. Also presented are resource management practices of the industry, the factors lodge operators considered to be constraints to the long-term viability of their operations, and operators' views on issues regarding assured access to the resource base.

Species Preference

From a compiled list of native and stocked fish species, the relative importance of individual game fish species was identified by

respondents (Table 32).

TABLE 32 IMPORTANCE OF FISH SPECIES

Species/Ranking	Very Important	Moderately Important	Neutral	Not Very Important	Not Important	Species Not In the Area	No. of Responses	Rank Score
Northern Pike	38	5	2	0	0	0	45	219
Walleye	32	7	2	0	0	3	44	194
Lake Trout	16	7	4	4	2	6	39	130
Whitefish	1	1	9	4	14	4	33	58
Brook Trout	5	1	3	0	1	21	31	40
Grayling	4	2	3	0	1	19	29	38
Rainbow Trout*	2	1	4	1	2	19	29	30
Smallmouth Bass*	2	1	3	0	1	22	29	14
Other (Perch)	0	2	2	0	0	0	4	14

* = Stocked

Northern pike was the species considered to be the most important by responding operators, due in large part to its widespread availability throughout Divisions 2 and 3 (Table 32). Walleye, lake trout and whitefish were considered the next three important species, respectively. While these results implied that these four species were considered most important to anglers, the majority of respondents lacked access to game fish such as brook trout, grayling, stocked trout (ie. rainbow) or smallmouth bass. However, if such species were present, respondents considered brook trout and grayling as superior to northern

pike. The presence of these game fish enhanced angling opportunities and, therefore, commercial prospects.

Species Caught

Operators ranked fish species most often caught by clients (Table 33). A rank value of 1 denoted the species most often caught; a value of 7 represented the species caught least often. A rank order from 1 to 7 was provided for 9 fish species, as not all listed species were available at any one operation. Northern pike, walleye, lake trout and whitefish remained the species most caught by clients. Of the remaining 5 species, they were either absent or not pursued.

TABLE 33 FISH SPECIES MOST OFTEN CAUGHT

Species	Rank Order
Northern Pike	1
Walleye	2
Lake Trout	3
Whitefish	4
Grayling	5
Stocked Trout (ie. rainbow)	6
Smallmouth Bass	7
Brook Trout	8
Other (Trout)	9

Resources Harvested

Respondents estimated the number and size of catch their average

client would allocate to meals and to take-home possession. Appended comments revealed that it was uncommon for operators to take specific note of creel counts and size of catch. The majority of operators indicated they were not always present for the preparation of shore lunches, meals and take-home limits. However, they provided estimates based upon personal recollection and reliance upon input of staff directly involved with clients on a day-to-day basis.

Estimated Number of Fish Harvested for Meals and Take Home Possession

Respondents indicated that northern pike and walleye predominated at catch-of-the-day meals (table 34) and in take-home possession (table 35). This observation is consistent with responses in respect to species importance and species most often caught (Tables 32 and 33), northern pike and walleye. Quantitatively, lake trout ranked third in meal and take-home prevalence. Estimated average number of fish utilized for meals and retained for take-home possession per client were within the Division 2 and 3 1989 general catch regulations for the daily limit per angler in Divisions 2 and 3.

 TABLE 34 TOTAL ESTIMATED AVERAGE NUMBER OF FISH HARVESTED FOR
 MEALS PER ANGLER CLIENT

Species	Number of Fish/Client	No. of Respondents
Northern Pike	5.2	21
Walleye	4.6	27
Lake Trout	2.2	15
Whitefish	-	-
Stocked Trout	-	-
Brook Trout	2.6	3
Grayling	-	-

- = none reported

 TABLE 35 TOTAL ESTIMATED AVERAGE NUMBER OF TAKE-HOME FISH PER
 CLIENT

Species	Number of Fish/Client	No. of Respondents
Northern Pike	5.3	21
Walleye	5.3	25
Lake Trout	2.2	13
Whitefish	1.0	1
Stocked Trout (ie. rainbow)	3.0	1
Brook Trout	1.0	1

Estimated Size of Fish Assigned to Meals and Take-Home Possession

A weight rather than length-measure was the most prevalent response in respect to estimation of average size of fish assigned to meals and

take-home limits. The majority of operators responded to the size of fish harvest categories in a measure of pounds (lbs) or kilograms (kg) and not inches (in) or centimetres (cm). These responses were converted and presented in kilograms (kg).

Tables 36 and 37 indicate the average size of fish, by species, assigned to meals and taken home. Comparison of the tables indicated that the majority of fish harvested for meals were generally smaller in size than those kept in take-home possession.

 TABLE 36 ESTIMATED AVERAGE SIZE OF FISH ASSIGNED TO MEALS

Species	Average in kg	No. of Respondents
Northern Pike	1.8	17
Walleye	.9	21
Lake Trout	2.2	12
Whitefish	.7	3
Stocked Trout (ie. rainbow)	1.4	1
Brook Trout	-	-
Grayling	-	-

- = none reported

TABLE 37 ESTIMATED AVERAGE SIZE OF TAKE-HOME FISH

Species	Average Weight in kg	No. of Respondents
Northern Pike	2.5	21
Walleye	1.2	23
Lake Trout	3.2	11
Whitefish	.7	3
Stocked Trout (ie. rainbow)	1.4	1
Brook Trout	1.3	1
Grayling	.9	1

Fish size estimates were within the Provincial length regulations for Divisions 2 and 3. As well, the larger-sized take-home fish did not, on average, exceed established minimum-weight classifications for Manitoba's Master Angler Award Achievement (Table 38) (Manitoba, 1989a).

TABLE 38 FISH SPECIES MINIMUM WEIGHT FOR MASTER ANGLER ACHIEVEMENT (kg)

Species	kg
Northern Pike	9.0
Walleye	3.6
Lake Trout	9.0
Whitefish	1.8
Stocked Trout	(Rainbow 1.8)
Brook Trout	1.8
Grayling	1.0

Source: Manitoba, Industry, Trade and Tourism, 1989a.

Resources Harvested Over Last Five Years (1985 - 1989)

Angling quantity and quality were measured by both the number and size of fish harvested, 1985 through 1989. For this period, 48% of respondents (n=20) reported no discernible change in client angling success (Table 39).

TABLE 39 CHANGE IN THE NUMBER OF FISH HARVESTED
(1985 - 1989)

Rating	Frequency (%)	No. of Responses
A significant decline	17	7
A moderate decline	17	7
No real change	48	20
A moderate increase	9	4
A significant increase	9	4
TOTAL	100%	42

Thirty-four percent (n=14) of respondents reported a decline in the number of fish caught, with the percentages of moderate and significant degrees of decline evenly divided at 17%. In contrast, 8 operators reported an increase in angling success (18%), with the respective degrees of increase equally divided at 9%.

Operators were requested to assess a change in the size of fish taken over the same time period. Over one-third of respondents (36%; n=15) experienced no perceptible change in the size of fish caught (Table 40). More than one quarter (27%; n=11) noted a moderate decline and only 4 respondents a significant decline. Twenty-seven percent of

operators (n=11) experienced an increase in the size of fish caught, with 17% indicating a moderate increase, 10% a significant increase.

TABLE 40 CHANGE IN THE SIZE OF FISH CAUGHT
(1985 - 1989)

Rating	Frequency (%)	No. of Responses
A significant decline	10	4
A moderate decline	27	11
No real change	36	15
A moderate increase	17	7
A significant increase	10	4
TOTAL	100%	41

A cross-comparison between access-mode and the quantity and quality of fish caught revealed a significant difference in the distribution of relative angling success and access-mode (Table 41). The road-boat respondent and over half (57%; n=16) of remote-access operators indicated no perceptible change in the number of fish caught. Sixty-one percent (n=8) of road-access operators perceived varying degrees of decline. Forty-three percent of remote-access operators and the road-boat respondent experienced no change in the size of fish caught. Seventy-five percent (n=9) of road-access respondents indicated varying declines.

TABLE 41

TRENDS IN OVERALL ANGLING SUCCESS,
1985 - 1989 / OPERATIONAL ACCESS

Rating/Access	Number of Fish			Size of Fish		
	Remote	Road	Road-Boat	Remote	Road	Road-Boat
A significant decline	3	4	-	1	3	0
A moderate decline	3	4	-	5	6	0
No real change	16	3	1	12	2	1
A moderate increase	2	2	-	6	1	0
A significant increase	4	0	-	4	0	0
TOTALS	28	13	1	28	12	1

4.6 Fishery Resource Base and Related Business

Operators were presented with questions that pertained to further resource base utilization and business concerns. Questions related to adequacy of fish stocks, quantity and quality of the resource, and anticipation of any deterioration in these factors corresponding to a threat to future viability of lodge operations.

Fish Stocks

Most operators were confident that there were sufficient fish stocks in their area to satisfy their client base (Table 42). The majority of operators (86%; n=38) held the view that adequate fish stocks were available. Relatively few operators (14%; n=6) were of the opinion that fish stocks were not adequate (Table 42).

 TABLE 42 OPERATORS' OPINIONS AS TO ADEQUACY OF FISH STOCKS

Adequate	Inadequate	N
38	6	44

Operators' perceptions of fish stocks were crosstabulated with access-mode (Table 43). Ninety-three percent (n=28) of remote-access respondents, 69% (n=9) of road-access operators, and the road-boat respondent, were confident that fish stocks were sufficient to maintain their client base.

 TABLE 43 PERCEPTIONS OF ADEQUACY OF FISH STOCKS IN
 AREA OF OPERATION / ACCESS

Rating/Access	Remote	Road	Road-Boat
Yes	28	9	1
No	2	4	0
No. of respondents	30	13	1

Resource Base Attributes

To further expand assessment of the resource base, operators were asked their opinion as to whether a direct relationship existed between quantity and quality in respect to angling, and their own operational success. Of 45 respondents, ninety-one percent (n=41) were convinced that a positive correlation existed between the two resource variables and operational success.

Operators were queried as to whether a decline in the quality and

quantity of the resource base would affect their business. Their opinions were derived via a three-level scale of response; "no real change", "moderate decline" and "substantial decline" (Table 44). Of 45 responses, few respondents (9%; n=4) anticipated that no perceptible change in business would occur. Forty-two percent (n=19) expected a moderate decrease, and almost half (49%; n=22) anticipated a substantial decrease. Opinions as to a perceptible decline in the quality and quantity of the fishery resource base as a cause of business recession were closely shared by remote-access and road-access respondents (Table 45). Fifty-one percent (n=16) of remote-access operators and 46% (n=6) of road-access respondents anticipated a substantial business decline as a consequence of diminished angling success, should this occur. Thirty-eight percent (n=12) of remote-access operators, 46% (n=6) of road-access respondents and the road-boat operator anticipated a moderate decline in business under such circumstances.

 TABLE 44 ANTICIPATED EFFECT IN BUSINESS OF DIMINISHED QUALITY AND
 QUANTITY OF THE FISHERY RESOURCE BASE

No Real Change	A Moderate Decline	A Substantial Decline	N
4	19	22	45

 TABLE 45 ANTICIPATED IMPACT ON BUSINESS OF DIMINISHED QUALITY AND
 QUANTITY OF THE FISHERY RESOURCE BASE, BY ACCESS-MODE

Access Rating	Remote	Road	Road-Boat
No real change	3	1	-
A moderate decline	12	6	1
<u>A substantial decline</u>	<u>16</u>	<u>6</u>	<u>-</u>
No. of responses	31	13	1

Operators were asked to project which two of the five presented marketing features in question #26d they would more intensively emphasize to prospective clientele, should a decline in fish catches be reflected in a decrease in business. Table 46 summarizes the percentages and frequency response to the two selected feature-pairings. Seclusion/amenities (28.9%; n=13) was the pair most frequently selected. Water quality/seclusion (20%; n=9), and seclusion/wilderness (17.8%; n=8) were regarded as the next most important feature-pairings.

The opportunity to angle in secluded lakes and rivers was the prime attribute of the five preference features. Angling, awareness of the environment and amenities of the lodge/camp were deemed more significant than the availability of other recreational pursuits.

TABLE 46 CONSIDERATIONS OF ATTRACTING CLIENTELE WITH A POTENTIAL
DECLINE IN FISH CATCHES

Features	% Response	Frequency Response
Opportunity to fish in secluded lakes and rivers . . .		
Amenities of the lodge/camp	28.9%	13
Opportunity to fish in unpolluted water		
Opportunity to fish in secluded lakes and rivers . . .	20%	9
Opportunity to fish in secluded lakes and rivers . . .		
Opportunity of a wilderness experience	17.8%	8
Opportunity for a wilderness experience		
Amenities of the lodge/camp	8.9%	4
Opportunity to fish in unpolluted water		
Amenities of the lodge/camp	8.9%	4
Opportunity to fish in unpolluted water		
Availability of recreational activities other than fishing	4.4%	2
Amenities of the lodge/camp		
Availability of recreational activities other than fishing	4.4%	2
Opportunity to fish in unpolluted water		
Opportunity of a wilderness experience	2.2%	1
Opportunity to fish in secluded lakes and rivers . . .		
Availability of recreational activities other than fishing	2.2%	1
Opportunity of a wilderness experience		
Availability of recreational activities other than fishing	2.2%	1
TOTALS	100%	45

4.7 Resource Management Practices

From a list of resource management practices, respondents declared which procedures were incorporated or could be introduced into their

operational practices (Table 47).

TABLE 47 CLIENT-RELATED RESOURCE MANAGEMENT PRACTICES USED OR INTRODUCED

Practices	% Response				Introduction Desired	How in Regulation	No. of Responses
	Always	Usually	Occasionally	Seldom/Never			
Compliance with Sport Fishing Regulations	97	0	3	0	0	0	39
One Trophy Fish per Species per Client	70	10	5	13	2	9	40
Use of Barbless Hooks	63	17	10	7	3	13	41
Encourage Registration of Master Angler Catches	60	14	14	12	0	0	42
Trophy Fish Registered with the Master Angler Program	56	17	17	10	0	0	41
Reduced Species Limits for High Quality Management (HQM)*	63	6	17	11	3	12	35
Catch and Release, Except for Meals	40	40	15	5	0	7	40
Size Restrictions for Trophy Species	56	12	3	20	9	9	34
Photos of Clients and Catch	34	34	12	20	0	0	41
Availability of Lifesize Species Replicas	40	12	18	23	7	7	40
Use of Single Hooks	23	24	35	9	9	3	34
Total Catch and Release, or No-Kill Policy	24	0	21	46	9	5	33
Use of Slot Limits**	32	0	7	47	4	5	28

* Waters that have limits of four walleye, four pike, one lake trout, and two smallmouth bass.

** Fish caught between upper and lower length limit must be released.

Respondents selected the values "always", "usually", "occasionally" and "seldom/never", as merits to indicate the respective degrees of commitment or non-commitment. A value of "introduction desired" suggested the introduction of management practices and "now in regulation" served as a check measure to identify whether operators involved the regulatory practices.

The majority of respondents incorporated several client-related resource management practices into their operational strategies. Nearly all respondents (97%) took active steps to insure anglers "always" complied with the sport fishing regulations. Based on the response "always", 70% of respondents encouraged the retention of no more than one trophy fish per species per client. Sixty-three percent (n=26) indicated they complied with the barbless hook regulation. Encouraging the registration of Master Angler catches (60%) was slightly higher than actually registering the trophy fish with the Master Angler Program (56%). Sixty-three percent of respondents promoted reduced species limits for High Quality Management (HQM). The practice of catch-and-release (except for meals) (40%), and the technique of photographing clients with their catch (34%), generated equal response values for the categories of "always" and "usually". Almost half of the operators indicated they "seldom or never" insisted on a total catch-and-release policy (46%), or the use of slot limits (47%). Few respondents indicated a commitment to introduce the listed conservationist practices. Tentatively recommended were upper size restrictions for trophy species (9%), use of single hooks (9%), a total catch-and-release policy (9%). Substitution through lifesize species replicas (7%) was

accorded a modest level of potential support.

Operators' Attitudes and Perceptions of Resource Base Maintenance or Improvement

Operators' attitudes and perceptions in respect to resource base management were further examined by incorporating an open-ended question (No. 28) into the questionnaire. A wide range of responses were compiled into corresponding associations for subsequent analysis. Of the 45 completed questionnaires, 36 respondents (80%) answered the open-ended question. Sixteen (44%) raised a single issue, while 20 operators (56%) raised two or more issues. Responses were compiled into four classifications; Regulations, Recommended Initiatives, Education, and Other. Table 48 indicates the section/issue and frequency of response.

The majority of respondents (58%; n=21) were of the opinion that fine-tuning of **Regulations** would promote improved resource management. Responses were distributed among various issues, with the reduction of catch limits (n=5) as the most frequently recommended regulatory amendment. Other regulatory revisions involving fish oriented concerns included the possible implementation of slot limits, high quality management, catch-and-release angling and stricter enforcement of existing regulations.

TABLE 48 ATTITUDES AND PERCEPTIONS RELATIVE TO IMPROVING RESOURCE MANAGEMENT

REGULATIONS	FREQUENCY RESPONSE	RATIO (%)
. Reduce catch limits	5	10
. Introduction of slot limits and high quality management regulations (HQM)	3	6
. All fly-in lodges should be catch and release only, except for shore lunches	3	6
. Stricter enforcement of sport fishing regulations	3	6
. Maintain existing daily limits	2	3
. Restrict all fishing on lakes to registered guests of the lodge	1	2
. Designation of restricted areas on large lakes for sport fishing only	1	2
. Reduce the allowable length of slot limits	1	2
. Develop no-kill slot limits for lake trout	1	2
. Require yearly use of resources for lease renewal	1	2
	21	41%

RECOMMENDED INITIATIVES

. Enhance hatchery-based restocking	4	8
. Vigorously prosecute perpetrators of illegal commercial net-fishing	3	6
. Where legal, restrict commercial net-fishing	3	6
. Devote additional effort to promotion and public relations	3	6
. Promote development of stronger market for rough fish	1	2
. Continue with positive resource management program	1	2
	15	30%

EDUCATION

. Promote public awareness of the environment, resources, and fish-handling techniques	4	8
. Intensify communication between lodge operators and resource management officials	3	5
. Broaden client exposure to wilderness landscape	1	2
	8	14.5%

OTHER

. Intensify promotion of Provincial tourism and wildlife potentials	2	3
. Continue provincial government financial grants to lodge operators	2	3
. Strengthen the Manitoba Lodge Operators Association (M.L.O.A.)	1	2
. Promotion of replica mounts	1	2
. Limit government grants to well established operations	1	2
. Promote catch-and-release fishing derbies	1	2
	8	14.5%
(n=36 RESPONDENTS) TOTAL NO. OF RESPONSES	52	100%

Forty-one percent (n=15) of respondents proposed changes to improve resource-base administration through direct **Recommended Initiatives**. Respondents perceived fish population enhancement (stocking) (n=4) as the initiative most likely to improve resource quality. Concern was also expressed in respect to the negative impact of commercial net-fishing upon lakes where it co-exists with sport fishing operations. Respondents supported Provincial Fisheries Branch promotion of information on the industry and in respect to resource management policies.

Eight respondents implied that **Education** would promote improved resource management. Four respondents in this category suggested that public awareness of environmental and resource factors, and of fish-handling techniques (proper methods of grasping and resuscitating common sport fish species) deserved urgent attention. Respondents also held the view that increased communication between operators and natural resource management officials would serve as an educational platform to further public awareness in respect to these issues.

Other management improvements suggested were greater government involvement in promotion, and a more articulated stand on catch-and-release angling competitions. Respondents viewed Provincial government grants to operators as a positive measure to aid industry viability. However, respondents also stated that assistance to well-established operations should be curtailed.

4.8 Constraints to Viability

Issues such as resource security, operating costs, and conflicts between competing users were considered to be factors affecting the viability of sport fishing operations. Operators were asked to state which of the factors they considered to represent the most serious constraint to the long-term viability or future expansion of their operation. Operators' attitudes toward these issues were surveyed using a 5-point Likert scale (1 = "very serious", 3 = "neutral", 5 = "not serious"). Value 6 indicated "no opinion". Table 49 illustrates the frequency of response in respect to prospective constraints to industry viability.

TABLE 49 PERCEIVED CAUSE-EFFECT FACTORS CONCERNING CONSTRAINTS TO INDUSTRY VIABILITY

Factors	Perception (%)						No. of Responses
	Very Serious	Moderately Serious	Neutral	Not Very Serious	Not Serious	No Opinion	
Long-Term Resource Security	77	15	2	2	2	2	43
Escalating Operating Costs	55	26	12	5	2	0	42
Government Restrictions on Development of Lodges or Outpost camps	51	19	7	9	14	0	43
Funds Available for Expansion/Upgrading	48	19	14	5	9	5	42
Fishery Resources Available to Expand Operations	46	26	11	5	7	5	43
Allocation of Fish Resources Between Competing Uses	39	28	12	7	9	5	43
Enforcement of the Sport Fisheries Regulations	38	21	10	7	24	0	42
Competition from Recreation Anglers not Staying at the Operation	26	28	11	9	26	0	43

Seventy-seven percent of respondents (n=33) were of the opinion that threats to long-term resource security constituted a "very serious" potential constraint to industry viability. Escalating operating costs (55%; n=23) and government restrictions on development (51%; n=22) were also regarded as "very serious" constraints by the majority of respondents. Availability of funds for expansion/upgrading of facilities (48%; n=20) and adequacy of fishery resources to permit expansion of operations (46%; n=19) were deemed "very serious" constraints by slightly fewer respondents. Competition from other users

(39%; n=17), level of enforcement of sport fishing regulations (38%; n=16) and competition from independent-access recreational anglers (26%; n=11) were regarded as being of potentially moderate consequence and concern.

A cross-comparison of operational-access and opinions as to the "very serious" elements affecting viability, revealed perceptual differences among respondents (Table 50). The majority of remote-access (81%; n=25) and road-access operators (73%; n=9) viewed threats to long-term resource security as the factor that would exert a "very serious" constraint to industry viability. For the most part, road-access operators did not contemplate the remaining factors with the same perception of seriousness as did remote-access respondents.

 TABLE 50 OPINIONS AS TO "VERY SERIOUS" CONSTRAINTS TO INDUSTRY VIABILITY / OPERATIONAL ACCESS

Factor/Access-mode	% Response		
	Remote	Road	Road-Boat
Long-term resource security	81	73	0
Escalating operating costs	63	36	0
Government restrictions on development of lodges or outpost	55	45	0
Funds available for expansion/upgrading	53	36	0
Fishery resources available to expand operations	48	45	0
Allocation of fish resources between competing uses	23	27	100
Enforcement of the sport fisheries regulations	40	36	0
Competition from recreation anglers not staying at the operation	23	27	100
n=TOTALS	31	13	1

4.9 Operators' Attitudes Toward Resource Tenure

A statement defining resource tenure was presented to operators. Respondents were asked to base their responses in respect to four issues of resource tenure upon a three-level scale of response; "considerable importance", "moderate importance" and "minimal importance". Table 51 illustrates the frequency response to the four related issues.

TABLE 51 PERCEIVED IMPORTANCE OF ISSUES REGARDING RESOURCE TENURE

Issues	% of Response			No. of Responses
	Considerable Importance	Moderate Importance	Minimal Importance	
Tenured Resource Rights	75	20	5	41
Imputed Tenure Through Allocation of Long-term Licences and/or Leases	69	20	12	42
More Generous Allocation of Resources	48	32	20	39
Extended-Time Resource Licence	49	34	17	34

Three quarters (n=31) of respondents held the view that allocation of tenured rights in respect to the resource base was of "considerable importance" to industry viability. Many respondents (69%; n=29) considered the allocation of long-term licences and/or leases to be of "considerable importance". Multi-year licenses (49%; n=17) and a more generous allocation of resources to sustain operations (48%; n=19) were regarded as being of "considerable importance" by just under half of the respondents.

Responses of "considerable importance" to resource tenure issues were cross-compared with operational-access mode (Table 52).

TABLE 52 RESPONSES OF "CONSIDERABLE IMPORTANCE" TO RESOURCE TENURE ISSUES
CROSS-COMPARED TO OPERATIONAL-ACCESS MODE

Issues / Access Mode	% of Response / n=()			No. of Responses
	Remote	Road	Road-Boat	
Tenured Resource Rights	86 (25)	45 (5)	100 (1)	31
Imputed Tenure Through Allocation of Long-Term Licences and/or Leases	70 (21)	64 (7)	100 (1)	29
More Generous Allocation of Resources	48 (14)	50 (5)	n.r.	19
Extended-Time Resource Licence	54 (13)	40 (4)	n.r.	17

n.r. = none reported

Generally, the cross-comparison revealed that remote-access operators were of the opinion that assured rights in respect to the resource base was of "considerable importance". The lone road-boat-access operator also expressed this view. The majority of road-access operators viewed attributed tenure through either long-term licences or leases as being of "considerable importance".

Chapter V

DISCUSSION

5.1 Marketing Considerations

This section attempts to develop an industry profile based on client-, operator- and environmental perspectives.

An interrelationship became apparent when operational-access mode was correlated with available services and accommodation. Accessibility and physical landscape appeared to be reflected in the range and type of services offered. Factors such as convenience of access to remote locations, the nature of licensing and tenure provisions, and pricing conditioned clients' responses to the range of "products" on offer.

Improved aircraft-access to remote locations has stimulated the introduction of operations spanning an impressive range of accommodations/services. Client preference for modern conveniences and a high standard of comfort in remote-access locations has led to the construction of up-to-date facilities. Road-access facilities have not proceeded with a comparable level of development, despite - and probably, to an extent, because of - their accessibility, since the inevitably attendant price hikes might stimulate prospective clients to opt for self-sufficiency to a degree even greater than that currently prevailing.

The element of wilderness seclusion at remote-access locations was viewed as a primary client concern by only 51 percent (n=16) of respondents who operated such facilities. Recreational expectations and private business seminar facilities were, they thought, being accommodated. Solitude appealed, as well, to many clients of road-

access operations. However, these operations offered only a limited degree of seclusion because of their accessibility. Still, road-access operations can provide an environment suitable for working holidays. Virtually all road-access operators stressed client angling success over the last decade (1980-1990). Up-scale amenities probably could attract a corporate-business clientele.

In return for operators' involvement in promoting good management, Provincial licensing and tenure provisions have assured them of continued access to the resource base to encourage investment and the construction of up-to-date facilities.

Managerial turnovers occur for personal reasons as well as from business failure. Personal stress, financial requirements, and the risks associated with this type of investment, resulted in only 41 percent (n=18) of the operations retaining their current managers for 10 years or more. Sixteen remote-access operations managers held their current jobs for four years or less. Stress, economic factors and proprietor-turnover were among the causative factors. These conditions may be linked to the character and diversity of accommodations/services available at remote-access operations. By comparison, 77 percent (n=10) of the road-access respondents had managed their operations for 10 years or more but were also susceptible to personal and financial stress situations.

In summary, the clients' angling experience was of focal concern to all operators. However, the range of direct and ancillary services and accommodations varied among establishments. In large measure, remote-access operations catered to a working-holiday clientele. The angling

experience was the dominant concern of road-access clientele.

5.1.1 Period of Operation and Occupancy Rates

June, July and May, in that order, were the peak months. All facility-types had similar periods of operation and peak months of occupancy.

For the most part, single-product respondents intended that their facilities be filled by sport anglers. Only two single-product operations focused exclusively upon corporate working-holiday clients. Single-product establishments could expand their range beyond the focus on angling. Multiple-product operators could continue to expand their services to blend the angling experience with other environmental/recreational aspects.

5.1.2 Client Characteristics

The client base was dominated by middle- to older-age patrons, with the typical client being between 31-49 and many guests between the ages of 50 and 64. These age groups tend to represent clients involved in the workplace, professionals, semi-retired or retired individuals. Clients 16 years of age and under were essentially absent. Cost was certainly a factor in determining participation.

Client/market results are supported by the Manitoba Department of Industry, Trade and Tourism (I.T.T.) observation that clients of operations within Divisions 2 and 3 were drawn from the same geographic base as that identified in the 1985 Federal Fisheries study on sport fishing in Manitoba (Manitoba 1988a). The majority of American anglers

originated from the North Central region of the U.S. (Figure 2). Canadian non-resident anglers were drawn primarily from Saskatchewan, Ontario and Alberta. These regions were suggested as priority client markets because of high indicated angling interest and proximity to Manitoba. On a percentage basis, it appears that few Manitobans patronize sport fishing lodges. Manitobans are neglecting a large number of good angling opportunities. Based on independent observation, however, this appears to be a reflection of the ease of access to less exclusive but nevertheless satisfactory angling opportunities. Remote lodges offer the opportunity to catch trophy sized lake trout, brook trout and arctic grayling. This should provide some appeal to anglers who may already have taken Master Angler awards in respect to pike, walleye, catfish and sturgeon in southern Manitoba.

5.1.3 Client-Attraction Factors

The majority of respondents were of the opinion that the abundance of fish influenced all other client-attraction factors and that large (trophy) fish created further appeal. In addition, the few operators who had access to species such as arctic grayling and/or brook trout, considered this to be a very important marketing factor.

Amenities of the lodge/camp were perceived to be the most important non-resource factor in attracting clientele. Variation in the importance placed upon amenities reflected the accommodation types offered. Respondents offering the all-inclusive "package" American plan considered it to have strong appeal to prospective clients.

Thirty-eight percent (n=17) of respondents considered

situation/location, in relation to angling prospects, a strategic factor in attracting clientele. Two other factors associated with situation/location, scenic beauty (27%; n=12) and wilderness (23%; n=10), were rated less highly. A study comparing lodge operations in British Columbia and Manitoba suggested that Manitoba establishments could not offer comparable scenic beauty (DPA Group Inc., 1988). In regards to this, Manitoba lodge operations focus on "World-class" or high quality angling experiences, in a scenic natural setting. Scenic beauty and wilderness appeared to be of concern primarily to clients who sought a broad-spectrum aesthetic and recreational experience.

To summarize, the majority of respondents believed that quantity and quality in terms of angling prospects outweighed other situational factors in attracting clientele.

5.1.4 Market-Targeting Strategies

A large majority of respondents (89%; n=40) considered angling enthusiasts as their primary target market. This response supports the client-attraction indicators, which established abundance of fish and the opportunity to catch trophy fish as "very important" considerations. It is altogether expectable, therefore, that the majority of respondents should target angling enthusiasts. General vacationers (40%; n=18) and wilderness seekers (37%; n=17), were much less specifically targeted. Future marketing strategies more intensively directed also at these client sectors could expand complementary markets.

5.1.5 Product Attributes

An abundance of fish (77%; n=33) and the opportunity to catch large (trophy) fish (70%; n=30), were the focus of marketing strategy of the majority of respondents. The 1985 Manitoba Sport Fishing Survey (Manitoba 1988a) indicated that both resident and non-resident anglers listed the environment as the most important factor affecting their sport fishing enjoyment in Manitoba. Factors such as water quality, natural beauty, weather conditions and wilderness, were considered very important components of the environment. Anglers placed less importance on resource elements such as the number and size of fish caught. It appears, therefore, that lodge operators are to some extent neglecting a market segment capable of exerting considerable appeal to prospective clients.

Topolniski and Anderson (1985) revealed distinct regional variations in the Manitoba lodge industry. They indicated that operators in the Northern and Eastern regions of Lake Winnipeg identified the prospect of catching large fish as the single most important factor in attracting clientele. Emphasis was also placed on the prospects of catching large numbers of fish. Results of this survey appear to mirror the results of Topolniski's and Anderson (1985). Similarly, northwestern Ontario lodge owners also favoured lots of fish over fewer but bigger fish (McTavish 1990).

5.1.6 Applied Marketing Techniques

The majority of respondents depended heavily upon repeat business (91%) and unsolicited word-of-mouth promotion (93%) to maintain their

client base. Forty percent or less of clients were first-time visitors. Of the overall number of clients, repeat guests were of primary importance to operators. Satisfied patrons, upon returning home, regale friends and associates with accounts of their experiences and incidentally influence other potential guests (Jan Collins pers. comm.). The overall effectiveness of repeat clientele as propagandists is important for operators. Dissatisfied clients downgrade their vacation experience and, consequently, the establishments' image.

Sixty percent (n=27) of respondents relied on sportsman/trade shows to establish contact with potential clients. While operators recognized the importance of direct contact, costs associated with exhibiting at shows force a limit on the number of shows that can be attended.

Other marketing techniques employed by operators included print media: the Master Angler Adventure Guide (42%; n=19) and sport fishing magazines (40%; n=18). Client names are published in the Master Angler Adventure Guide. The Master Angler program should therefore continue to combine positively with unsolicited word-of-mouth promotion and repeat clientele in enhancing the recognition factor for Manitoba lodge operations.

On balance, respondents recognized repeat business and the associated unsolicited promotion of their establishments by satisfied clients as the most effective form of advertising, ahead of trade-show presentation and the printed media.

5.1.7 Intentions

Of the twenty-five respondents who had managed their operations for

five or more years, twelve stated that their average number of clients had been increasing. Of the seven operators who noted declines, only one respondent had made any attempt to change/adapt his/her marketing techniques. Nine operators experienced varying increases subsequent to alterations to their marketing techniques specifically aimed at increasing contact with prospective clients.

The majority of respondents emphasized their concern over the image projected by lodge operations in Divisions 2 and 3. They maintained that the industry's image as a whole, including individual operators and the Manitoba Lodge Operators Association (M.L.O.A.), required general upgrading. Respondents stressed that, due to the competitive nature of the industry, aggressive, positive image projection is essential to promote the industry.

Some respondents questioned the "World Class" image promoted by Industry, Trade and Tourism (I.T.T.). Comparison to the "World Class" resorts situated in Europe and the U.S. was deemed disadvantageous and, indeed, inappropriate. Still, a "World Class" image projecting the unique qualities of the natural and sporting environment available here would emphasize equivalence while at the same time stressing "non-sameness".

The Master Angler program was viewed as the most effective industry marketing tool produced by Travel Manitoba. However, repeated reference to locations where trophy fish were taken was viewed as discrimination in advertising against operations where trophy fish were not caught as often. However, recent regulation changes and conservation themes calling for the mandatory release of trophy fish, should gradually

improve trophy potentials at operations with modest reputations in respect to trophy prospects.

Operators were dubious as to the overall effectiveness of existing promotional efforts and were skeptical as to the benefits of advertising in major magazines and on television. They claimed to have been generally unable to discretely identify client recruitment attributable to promotional outlays.

Operators also wished to know what effect was achieved through co-operative cost-sharing advertising with I.T.T. Others suggested that I.T.T. should intensify the promotion of northern Manitoba, thereby seeking additional recognition at the expense of the Province. Some operators felt that Tourism officials could be more cognizant and supportive of private businesses such as lodge operations. Since I.T.T. deals with many tourism sectors, respondents were of the opinion that this expertise should be shared with the M.L.O.A..

In summary, respondents emphasized direct contact with clientele as the major thrust of their marketing strategy. An enhanced industry image and further promotion of northern Manitoba should lead to greater recognition and increased client recruitment.

5.1.8 Anticipated Business Prospects

Generally, respondents had positive expectations as to future business prospects. Seventy-eight percent (n=35) of respondents anticipated that business volume would improve during the coming five seasons (1990 - 1994). Only 11 percent expected business to hold steady, and the same proportion anticipated a decrease. Remote-access

operators (96%; n=30) had very positive expectations, while road-access respondents either anticipated no significant change (38%; n=5), or varying levels of reduction (31%; n=4) in business. The substantial range of expectations reported by respondents may, to some degree, have been related to the number of years in operation. Over half of the remote-access operators had been in business for fewer than five years. Their more enthusiastic outlook could be attributed to having experienced consistently positive business trends. Road-access operators maintained a guarded outlook, having experienced considerable fluctuations over the preceding decade.

5.1.9 Attracting Future Clientele

Twenty percent of respondents (n=9) considered the abundance of fish, the opportunity to catch large (trophy) fish, and amenities of the lodge/camp to be the factors most important in attracting new and repeat clientele. Relative weighting was: abundance of fish (78%), the opportunity to catch large (trophy) fish (76%), and amenities of the lodge/camp (42%). These factors were considered most potent in influencing clientele. Comparison of the marketing results from each section of the questionnaire supported respondents, who collectively rated these three factors as "very important" for attracting clientele. These product attributes were most highlighted in operators' promotional efforts, in which abundance of fish (77%), large (trophy) fish (70%) and personal services (56%) were ranked in that order.

A large majority of respondents (91%; n=41) will continue to base marketing strategies on these factors. They will continue to emphasize

the angling experience and to target angling enthusiasts. Other recreational potentials, scenic beauty and wilderness receive only limited consideration in projected marketing strategies.

5.1.10 Projections

In projecting their intentions over the ensuing five years (1990 - 1994), 44 percent (n=20) of respondents anticipated little or no change of focus or thrust. Only a few operators considered diversification into other recreational services (9%) and broadened angling opportunities (7%). Comparison of projections with prior experience revealed respondents' anticipated adaptations. Forty-four percent (n=20) expected to continue as before, while 78 percent (n=35) anticipated expansion in business volume, partly as a function of an enhanced breadth of program. Respondents were generally optimistic. Remote-access respondents' optimism, particularly, suggests that the bulk of future expansion may well occur at remote-access facilities.

5.2 Resource Use

5.2.1 Species Importance

Survey results indicated that northern pike, walleye, and lake trout, in that order, were the species deemed most important to business success. Their species ranking differs from the results of two previous studies. Topolniski and Anderson (1985) determined that walleye was the most important species to lodge operators of the three Manitoba sport fishing Divisions. A 1985 survey of sport fishing in Manitoba (Manitoba 1988a) also identified walleye as the species preferred by most anglers.

The difference between the two previous studies and this survey may, at least in part, reflect the current geographical distribution and relative abundance of each of the dominant gamefish species.

The southern region of the province (Division 1) has limited lake trout populations due to a lack of suitable habitat (oligotrophic lakes). The relative absence of this species, combined with high levels of angler activity, creates a reliance upon walleye and northern pike. The greater presence of lake trout in Divisions 2 and 3 reduces dependence and angler concentration on walleye and northern pike. Several respondents identified lake trout as the species most important to their operations. Respondents also considered arctic grayling and native brook trout important, not least because of remoteness/exclusivity and the unique diversity of angling opportunities they, together with walleye, pike and lake trout, provided.

Unlike walleye, whose range barely extends to Manitoba's northern border (60 degrees latitude), northern pike are well represented throughout the province. Consequently, all lodge operations had access to this species. Respondents indicated that many anglers prefer trophy pike over walleye. The abundance of pike accessible to all operations, and their trophy potential, appear to be the main factors generating this response. Northern pike was also the species caught most often, suggesting that it may be the easiest to catch for unskilled anglers. Its aggressiveness, fighting qualities and sheer size as a trophy fish also undoubtedly influence angler preference for pike.

5.2.2 Estimated Fish Harvests

Northern pike, walleye and lake trout, respectively, were also the client-preferred species for meals and take-home possession. Operators generally did not personally take note of creel counts or make size verifications. Their estimates were aided by staff input, but, their appended comments also emphasized that number, size, and species of fish taken are vital to the welfare of the industry. Reducing fish wastage at meals and, selecting juvenile species in place of more mature fish to preserve the breeding stock, were their concerns.

5.2.3 Creel and Size Estimates (1985 - 1989)

For 1985 through 1989, 48 percent of respondents (n=20) indicated no perceived change in the number of fish caught. Eighteen percent of respondents, in fact, implied some degree of increase in number and size of fish taken.

The majority of road-access operators perceived a decline in both the number and size of fish caught. Most road-access establishments are located within Division 2, where the available resource base is relatively limited compared to that in Division 3. Angling pressure has increased in Division 2 (Green and Derksen, 1984). Perceptions of road-access respondents tend to confirm Fisheries Branch concerns, that certain lakes in Division 2 may no longer possess the resources required to sustain a "quality" angling experience or future industry expansion. Since Division 3 contains mainly remote-access lodges constructed after 1984, the concern there is on holding expansion to a level consistent with the intent to conserve the resource. In general, respondents'

perceptions suggest the need for future programs to ensure habitat quality and forestall overharvest.

5.2.4 Angler Satisfaction

The majority of respondents (86%; n=38) were confident that fish stocks continued to be adequate to maintain client satisfaction. The majority of respondents (80%; n=36) held superior angling prospects to be a "very important" factor in attracting clientele. In summary, fish stocks were deemed adequate to sustain client interest.

5.2.5 Angling Potentials - Quantity and Quality

Most operators (91%; n=41) were persuaded of a direct relationship between the quantity and quality of the angling potentials and the success of their operations. These respondents were convinced that diminished angling potentials would result in a decline in the economic viability of the industry.

A mature fish population, in trophy or near-trophy size, is required to both satisfy clientele and to sustain reproduction. Should a decline in the quality or quantity of the resource base occur, respondents would consider promotion of other features to attract clientele, to forestall a decline in business. Seclusion, and the amenities of the lodge/camp, were the features respondents (29%; n=13) most emphasized. Currently, 89 percent (n=40) of respondents concentrated their marketing efforts on angling enthusiasts, who are expected to continue to be the primary client segment for the foreseeable future.

5.2.6 Resource Management Practices and Improvements

Ninety-seven percent of respondents (n=38) declared they "always" complied with the prevailing regulations. This suggests that operators make an effort to ensure that clients conform to the Fishery regulations. Still, five of the thirty-eight respondents indicated they "seldom or never" advocated a limit of one-trophy-fish-per-species-per-client, and seven "seldom or never" suggested maximum size (length) restrictions for trophy species to clients. Further acceptance of such management practices needs to be voluntary. McTavish (1990) found that Northwestern Ontario lodge owners favoured new size (species) regulations. He suggests that if lodge owners perceive their guests as favouring new regulations then the lodge owners themselves are more apt to accept them. Manitoba Fisheries Branch should convince lodge operators that such measures would forestall overharvesting of trophy species and increase the acceptance of selective harvest/catch-and-release angling.

Virtually all operators promoted some level of catch-and-release angling. Still, only 40 percent (n=16) claimed to be promoting it vigorously. Only three respondents expressed a willingness to support a total catch-and-release policy.

Sixty-three percent (n=26) of operators claimed that they permitted only barbless hooks. Barbed hooks were disallowed in the province of Manitoba as of 1990, but barbless hooks were strongly endorsed for several years prior. Respondents suggested that this regulation might be taken one step further, by stipulating the use of single hooks on fishing lures to reduce snagging injuries and aid in the release of

fish.

Sixty percent (n=25) of respondents encouraged the registration of Master Angler (trophy) catches. Of these, twenty-three directly oversaw registration of the trophies.

Twenty-three percent of respondents (n=9) indicated they "seldom or never" advocated the use of replica mounts in place of the traditional skin mounts of trophy fish. Adoption of this alternative would enhance the sport-angling image which operators are increasingly attempting to project. Operators may not be sufficiently aware of the potentials of replica mounts in undergirding the overall momentum toward catch-and-release and Master Angler recognition.

Other responses suggested further management improvements could be achieved through education, conservation initiatives and refinement of regulations. These responses reflected agreement with Fisheries initiatives to improve angling quality and conservation awareness. Respondents were not, however, totally in agreement with all management practices advocated by Fisheries officials.

Regulations: There is general consensus among respondents that a reduction in catch-and-keep limits could benefit angling potentials. Respondents also suggested the introduction of specific amendments to the general sport fishing regulations; slot limits (release of selected species between upper and lower length limit), High Quality Management (HQM) restrictions, a strict catch-and-release policy in respect to trophy fish at all remote-access locations, and elimination of commercial fishing on some lakes with high calibre sport fishing potentials. Some respondents, however, were of the opinion that a

reduction in catch-and-keep limits would not be beneficial. They held that fish stocks were adequate to sustain current levels of angling intensity. Therefore, an effort to further reduce limits was seen as potentially diminishing the "world class" image of angling in Manitoba. Reduced catch-and-keep limits would imply that the resource base was in distress, and might well evoke a negative reaction from potential clients.

Respondents who disagreed with a strict total catch-and-release policy in respect to trophy fish predicted that such a regulation would be injurious to business. Whereas a certain level of number-and-size restrictions promoted sound management, there is a persistent demand for take-home catches. The attendant display of angling success "back home" is also viewed as benefitting the lodge industry because of its acknowledged potentials for attracting new clients.

Respondents from all access-mode sectors expressed concern regarding effective enforcement of regulations. There are too few Natural Resource Officers in the field to effectively monitor all locations at all times. Fisheries officials need to ensure that field officers are sensitive to the effectiveness of regulations and invite user feedback in order to further develop and refine the management strategy. Of great importance would be the enhancement of angler awareness regarding the detrimental effects of overharvesting, and the enlistment of anglers in the promotion of an aggressive conservation strategy.

Fishery enhancement through stocking programs was the primary recommended initiative advanced by respondents. Stocking programs would reinforce populations of self-propagating native species that had

declined due to over-exploitation and introduce exotic species to waterbodies where they were hitherto not represented. Increased populations and species diversity would promote expansion of the potential client base. While the stocking of exotic and native species for angling may be justified by Fisheries management, supplementing stocks is not viewed as an effective management tool for sport species depleted through over-exploitation. Such populations will normally recover if angling pressure is reduced. Native and exotic species could be subjected to strict, low creel limits or catch-and-release only, until populations recover. Operators, too, would have to accommodate to such strictures. Over time, a sustained angling potential is crucial to the lodge industry's future.

Quota allocations and HQM regulations have resulted in conflicts between commercial net-fisheries and lodge operators. Respondents view net-fisheries as a threat to lodge operations. Net-fishing tends to capture particularly the larger fish spared by catch-and-release anglers. Fisheries officials agree that commercial net-fisheries are not compatible with HQM procedures in most circumstances. However, they also indicate that the elimination of multiple-use situations may result in under-harvest (Manitoba 1989). Therefore, the resolution of this conflict does not necessarily require the elimination of one or other of the resource users. Multiple-use situations can be designed to conserve fishery resources and improve business opportunities. With this in mind, large lakes with adequate stocks may be able to sustain both a commercial net-fishery and sport fishing.

Net-fisheries in the same waters generally degrade the sport fishing

image projected by lodge operators. However, segregated or zoned areas, as proposed by Sawatzky and Unger (1970), would help to avoid clashes between the commercial and the recreational fishery. A high quality management approach via imposition of strict mesh-size limits (to exclude large as well as small fish) could be applied to net-fishermen, to the benefit of fish populations. Respondents also advocated the development of a stronger commercial market for rough fish (sucker, carp, burbot) as a factor in sustaining a multiple-use approach. Respondents were generally receptive to management modifications intended to benefit both resource-user groups.

Respondents recommended that the Department of Natural Resources promote lodge industry awareness more intensively. Again, suggesting free advertising. Manitoba sport fishing operators in Divisions 2 and 3 have received recognition throughout the United States, Canada, and Europe, due in part to management policies implemented by the Department of Natural Resources. The industry has become a priority concern for Fisheries representatives, who maintain liaison with user groups to promote policies aimed at sustaining industry viability. Fisheries staff have achieved a high level of resource management coordination despite austerity measures which have curtailed staffing levels.

Although few operators specifically identified education as a resource-maintenance and -improvement factor, suggestions in respect to regulations and recommended initiatives inferred this as a concern. Referring specifically to education, respondents suggested the development of a stronger public awareness of the environment, resources, and lodge-industry-compatible conservation techniques (catch-

and-release, barbless hooks, etc.).

Respondents implied that anglers now and in the future need to be fully apprized of environmental problems, resource limitations and the purpose of management programs, to appreciate the position of resort operators. They were of the opinion that habitat protection in Divisions 2 and 3 should emphasize greater understanding of the 'wilderness' concept and the overall fragile state of the environment. This should evoke a greater overall angler respect for the environment and elevate the profile of Manitoba lodge operations.

Angler education must persist in focusing on the fishery resource and prevent careless abuse. To sustain 'quality' angling, industry officials have been promoting the theme of less consumptive fishing through reduced catch limits and catch-and-release regulations. Respondents suggested supplementing the traditional pamphlets, brochures and promotional stickers with educational articles in sport fishing magazines and newspapers. It was deemed important to highlight differences in regulations between Divisions, particularly as these distinctions might influence clients in respect to choice of destination in selective-retention or strictly catch-and-release angling zones.

Other recommendations included government grants-in-aid to lodge operators and a strengthening of the M.L.O.A. The subject of grants unleashed vigorous debate among respondents. Provincial aid was generally perceived as being offset by improved maintenance and upgrading of establishments and closer adherence to resource-management guidelines and angling regulations. One faction advocated that grants should be made available to operations in the construction stage, or

when existing facilities require support to maintain their viability. Others viewed funding as biased support of 'exclusive' operations that should have no claim on public funds. Opponents argued that financial support could lead to overdevelopment, thus possibly fostering a permanent "welfare mentality" in the industry.

Advocates of funding maintained that if provincial aid was made available, a balanced allocation of funds would provide support for sustained economic development in the north. The Licensing Advisory Committee (L.A.C.) and the M.L.O.A. should review government grant programs to determine whether they meet the requirements of committed operators.

The subject of catch-and-release angling competitions at lodge operations was raised. Live-release angling tournaments could promote awareness of the 'quality' resources accessible from Manitoba lodge operations. If properly organized, corporate sponsorship, the participation of well-known anglers, and derby events, could be documented on television and in sport fishing magazines. Contest objectives could earmark a portion of the prizes and entrance fees for species enhancement, habitat renewal and conservation within Manitoba.

The overall acceptability of angling competitions raised some valid concerns. Such events can promote conservation. Still, they may induce additional pressure on trophy stocks. Even a strict catch-and-release policy raises concerns regarding mortality rates. Other respondents were of the opinion that fishing derbies degraded the spirit of the sport and the quality of the resource.

The argument in respect to promotion of catch-and-release angling

derbies remains open. I.T.T. and Fisheries officials, together with lodge operators, need to decide whether these such events can serve as effective promotional ventures.

In summary, individual lodge operators maintained a variety of resource management practices that complied with sport fishing regulations and, variously, they supported catch-and-release angling. Appended responses suggested major management improvements; a reduction of catch-and-keep limits, enhanced hatchery-based restocking programs, fine-tuning of multiple-use situations, and greater environment/resource education for anglers.

5.2.7 Viability

The majority of operators (77%; n=33) considered long-term resource availability as the major concern in respect to industry viability. Resource security governs long-term commitments to development.

It appears that, relative to sustained angling potentials, other factors were of less concern, presumably because of the Manitoba lodge licensing and tenure system, which also deals with multiple-use resource allocation. Nonetheless, conflicts arise, despite allocation of resource-access. Thirty-nine percent (n=17) of respondents considered competing uses as a "very serious" constraint to the long-term viability of their operations. This suggests that Fisheries should more involve itself to ensure compatibility among users. Net-fishing and angling co-exist on large lakes (eg. Kississing Lake, Cormorant Lake, Wekusco Lake). To diminish the prospect of a negative image which may be generated in multiple-use situations involving lakes that support or

could support lodge operations, segregated zones could be designated in such a way as to favour greater retention of angling target-species to the benefit of the lodge industry.

Competition from recreational anglers not staying at lodge operations was a concern of operators. Respondents held the view that itinerant anglers (resident and/or non-resident) are pursuing the same fish as lodge clients, but without the associated costs of staying at the resort. Itinerant anglers threaten overharvest. Respondents were also concerned lest itinerant anglers cause a decline in value of their establishments through diminution of the image of exclusiveness and/or remoteness. Understandably, this view was held primarily by road-access respondents. However, increasingly frequent day trips by itinerant fly-in anglers could jeopardize the image of even remote establishments. Zone allocation on larger lakes could restrict access to prime angling waters to lodge clients only.

Zone allocation might well protect lodge operations. Northern communities, however, could also reap economic benefits from an influx of itinerant anglers. More extended stays increase demand for accommodation, food, fuel, etc. Fly-in day trips into remote-access lakes benefit local charter operations. Fisheries and Tourism officials would have to ensure that economic benefits are weighed off against resource impacts in the face of such developments.

Fifty-five percent of respondents (n=23) perceived escalating operating costs as the second most serious constraint to industry viability. Forty-eight percent (n=20) were of the opinion that lack of capital also constituted a very serious constraint to future expansion

or upgrading. I.T.T. and Fisheries officials should be sensitive to the fact that financial concerns will continue to be a prominent factor.

Fifty-one percent of respondents (n=22) perceived government restrictions on further expansion of lodges or outpost camps as a serious constraint to long-term industry viability. The appropriate Government departments should synchronize these 'restrictions' with members of the M.L.O.A., to establish a clearer set of policies and alleviate such concerns.

The majority of respondents viewed concerns in respect to resource stability and escalating costs as constraints to industry expansion and/or upgrading. Government restrictions on expansion were perceived as a serious constraint.

5.2.8 Importance of Tenure

Seventy-five percent of respondents (n=31) were of the opinion that allocation of restricted but secured rights to the resource base was of "considerable importance" to the future viability of their operations. Exclusive long-term licenses and/or leases were regarded as being of "considerable importance" by sixty-nine percent (n= 29). Responses to questions in respect to related factors were compatible with this.

Assured and, to a degree, exclusive access rights were perceived to be more important than more liberal regulations in respect to catch- and retention-limits. Respondents' commitment to conservation should influence the Licensing Advisory Committee (L.A.C.) to further view modifications in this direction with some favour.

Chapter VI

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The assessment of attitudes and perceptions prevailing among Division 2 and 3 sport fishing lodge operators revealed that marketing success was closely linked to the perceived quality of the fishery resource base. The most prominent operator concerns were abundance of fish and the prospect of catching large (trophy) fish. Promotional effort therefore concentrated on these factors.

Respondents were generally confident that fish stocks were adequate for client satisfaction and, hence, for operational success. Should angling success diminish, respondents anticipated that business would decline. To sustain fish stocks, management practices centred on catch-and-release angling. Sustained industry success was perceived as being intimately linked to game-fish populations. Assured and, to a degree, exclusive future access to the resource base was of considerable concern to respondents. It is, at the same time, essential that the resource base be protected from over-exploitation, in order that this industry may continue to yield benefits for Manitoba.

6.2 Recommendations

Based upon the interpretation of survey responses, including supplementary comments from the open-ended questions, the following recommendations were developed as a potential guide to future marketing strategies and resource management policies for the Manitoba Department of Industry, Trade and Tourism, Manitoba Department of Natural Resources, Fisheries Branch and sport fishing lodge operators of

Divisions 2 and 3:

. Operators should aggressively project a professional image to augment the recognition factor for Manitoba lodge operations. Image enhancement should focus on the combination of excellence of services, superior angling potentials, and conservation management.

. Remote-access operators should more intensively promote "wilderness-angling experiences" to prospective clients. This concept of "eco-tourism" could be an effective promotional tool projecting Manitoba's natural sport angling environment.

. Manitoba Department of Natural Resources, Fisheries Branch, with the co-operation of the Manitoba Lodge Operators Association (M.L.O.A.), should invoke initiatives designed to increase angler awareness of conservation ethics and the avoidance of habitat reduction. As well, the positive aspects of catch-and-release/selective angling should be convincingly promoted. Anglers' awareness of these issues should be emphasized through articles in sport fishing magazines, major newspapers, collaboration between writers and television producers and through advertising brochures. This should be of benefit to both lodge operators and the Province.

. Manitoba Industry, Trade and Tourism, in co-operation with lodge operators, should conduct a client survey to identify if additional activities could augment the angling experience. This should assist operators who may consider the introduction of wilderness excursions, nature observation/photography, fishing seminars/schools, canoeing, hiking, etc. Such activities would diversify the experiences available,

expand complementary markets and promote conservation ethics.

. To penetrate the younger-age market and encourage family excursions, operators should offer promotional packages aimed at youthful members of clients' families. Such packages could inspire participation by younger people and ongoing maintenance of a loyal client base.

. Manitoba Industry, Trade and Tourism should continue to assist operators with co-operative advertising of northern Manitoba in traditional markets and expand these endeavours into Europe, Japan, and beyond the central region of the United States. Advertising should emphasize qualities of resources and remoteness that are "rare" elsewhere.

. The Manitoba Lodge Operators Association (M.L.O.A.) should implement regular operator surveys to monitor the effectiveness of promotional efforts and identify industry trends. Seminars, to broaden the understanding of innovative marketing and its implications for operators, should be vigorously promoted within the industry.

. Operators and staff should continue to emphasize the importance of conservation as a factor in sustaining consumption. Catch-and-release should be promoted as a responsible alternative to catch-and-keep up to legal limits.

. Operators, in conjunction with the Fisheries Branch, should continue to pursue imaginative innovations in resource management to sustain and improve angling potentials.

. With the co-operation of operators, Manitoba Department of Natural Resources, Fisheries Branch, should continue to be involved in sustaining game fish populations through development and refinement of

appropriate conservation management strategies.

. Operators should promote replica mounts to clients (residents and/or non-residents) as an alternative to retention of trophy fish. A client who has successfully released a trophy fish and made application to the Master Angler Program, should be encouraged to purchase a replica mount at a moderate cost. As a statement of concern and context toward conservation management practices, the Provincial government should subsidize the replica market by withdrawing the sales tax on purchased mounts. Such a policy should increase the number of anglers who opt for replicas. Lodge operations, taxidermists, and the Master Angler Program should all benefit.

. Proper catch-and-release techniques to minimize fish-handling, hook removal (or non-removal in the case of severely hooked fish), and resuscitation procedures of common sport fish species should be featured in the Manitoba Sports Fishing Guide, other government publications and industry promotions (ie. brochures, video). Corporate sponsors could be involved in promoting such educational features.

. Manitoba Department of Natural Resources, Fisheries Branch, with industry participation, should assess the mortality rates of released fish at lodge operations. Proper release of fish and the resuscitation period should be documented. Emphasis should centre on the significant reproductive potentials of released large (trophy) fish. Results should be made available to lodge operators and published along with information on appropriate catch-and-release techniques.

. Operators should continue to promote membership in the Manitoba Lodge Operators Association (M.L.O.A.). Lobbying efforts should address

the availability of, and balanced allocation of Provincial grants-in-aid to lodge operators. Resource allocations to expanding operators, multiple-use fisheries, regulation changes, fish stocking programs, etc. should also be addressed at annual meetings with Provincial representatives. Such concerns may assist in the development of policy and new management practices.

. Manitoba Department of Natural Resources should continue to maintain a multiple-use approach also accommodating commercial users. Through consultation with user groups, large productive lakes could be selectively zoned for sport and net-fishing only, excluding one or the other from designated areas (Sawatzky and Unger 1970). Seasonal allocation of zones could be instituted where selected species are abundant. Winter could be the optimum period for net-fishing, as lodge operations are generally closed, thereby avoiding image or spatial conflicts. Specific gear regulations (ie. 4.25 inch mesh-size) would allow commercial fishermen to harvest valued species (walleye; pike) while selectively excluding trophy-size fish and juveniles. Inefficiency of enforced net-mesh-size would allow sufficient breeding stocks to remain, assuring adequate survival and long-term sustainable use of valued species. Adequate knowledge of valued species populations should make it possible to establish lake-specific quota restrictions concerning species and harvest levels. Realistic quotas would suppress the tendency of net-fishing to expand beyond the resource capacity. Economic and social perspectives might be considered in establishing quota restrictions. The selective multi-use approach should also stress enhanced market development for rough fish.

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APPENDIX A:
THE QUESTIONNAIRE

COMMERCIAL SPORTS FISHING OPERATOR'S QUESTIONNAIRE

Throughout this survey the questions will deal with the marketing considerations and resource utilization of commercial sports fishing operators.

YOUR COMMERCIAL SPORTS FISHING OPERATION

We would like you to provide details about your commercial sports fishing operation. Please answer the following questions.

1. What types of services are offered by your operation?
(Please check all that apply.)

- fishing experience
- wilderness experience
- vacation package with availability of other recreational activities (e.g. canoeing, hiking, sight seeing tours, photography, etc.)
- corporate business - vacation package
- other (write in) _____

2. On what scale of operation is your business licenced for?
(Please check all that apply.)

- American Plan Lodge
- housekeeping facilities
- outpost camps
- trailer/tent sites
- other (write in) _____

3. How is your operation accessible? (Please check.)

- fly in - remote
- road
- road - boat
- rail

4. How long have you been operating the lodge/camp facilities?
(Write in)

_____ years.

5. Which months does your operation open and close,
respectively? (Write in)

_____ open _____ close

6. For each month of operation, please approximate the
percentage of occupied accommodation during the 1989 season?
(Write in)

_____ %	May	_____ %	August
_____ %	June	_____ %	September
_____ %	July	_____ %	October

7. Approximately how many clients were received during the 1988
season? (Write in)

_____ total number of guests

8. From the total number of clients received, what percentage of
these clients came from the various regions listed below?
(Write in)

Percentage of Guests

Regions

_____ %
_____ %
_____ %
_____ %
_____ %

Manitoba
Other Canadian Provinces
United States
Europe
Other (Write in) _____

9. The following list of factors are believed to influence your volume of business. Which factors are important in attracting clients to your operation? Please respond to each factor by **checking** a box that corresponds to a number from the scale below. You can think of the numbers being: 1 = very important; 2 = moderately important; 3 = neutral; 4 = not very important; 5 = NOT important.

Factor	Very				Not	No
	Important	1	2	3	Important	Opinion
					5	6
the abundance of fish resources	()	()	()	()	()	()
the opportunity to catch large (trophy fish)	()	()	()	()	()	()
the opportunity to catch unique species	()	()	()	()	()	()
desire for a wilderness experience	()	()	()	()	()	()
scenic beauty of the environment	()	()	()	()	()	()
availability of other recreational activities	()	()	()	()	()	()
amenities of the lodge/camp	()	()	()	()	()	()
the location of your operation	()	()	()	()	()	()
the corporate advertising efforts of Travel Manitoba	()	()	()	()	()	()
use of the Master Angler Program	()	()	()	()	()	()

10. What target market of clients are currently being considered in your marketing strategies? **(Please check)**

- () fishing enthusiasts
- () wilderness seekers
- () vacationers
- () corporate business / fishermen
- () other (write in) _____

11. When marketing your operation, which product attributes receive consideration? Please respond to each attribute by checking a box that corresponds to a number in the consideration scale below. You can think of the numbers being: 1 = most consideration; 2 = moderate consideration; 3 = neutral; 4 = least consideration 5 = not considered at all.

Attributes of the lodge/camp	most consideration		3	4	not considered at all 5	no opinion 6
	1	2				
location of operation	()	()	()	()	()	()
accommodation facilities	()	()	()	()	()	()
meals	()	()	()	()	()	()
use of guides	()	()	()	()	()	()
personal services	()	()	()	()	()	()
other (write in) _____	()	()	()	()	()	()
 Resource Attributes						
abundance of fish	()	()	()	()	()	()
the opportunity to catch large (trophy) fish	()	()	()	()	()	()
the opportunity to catch unique species	()	()	()	()	()	()
wilderness experience	()	()	()	()	()	()
scenic beauty	()	()	()	()	()	()
other (write in) _____	()	()	()	()	()	()

12. What marketing techniques are currently being used to attract clientele to your operation? (Please check)

- () sport show booths
- () advertisements in syndicated sport fishing magazines
(Please list)

-
- () advertisements in the Manitoba Sports Fishing Guide
 - () use of the Master Angler Program
 - () advertisements in major newspapers (Please list)

-
- () sponsored trips for noted television anglers
 - () self-produced videotape of the operation
 - () reliance on return clientele
 - () word of mouth

13. What percentage of your clients were first time visitors to your business in 1989? (Write in)

_____ % of first time visitors

14. Which age group majority are your clients from? (Please check)

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> less than 16 years | <input type="checkbox"/> 50 - 64 |
| <input type="checkbox"/> 17 - 30 | <input type="checkbox"/> 65 and over |
| <input type="checkbox"/> 31 - 49 | |

NOTE: IF YOU HAVE BEEN AT YOUR OPERATION LESS THAN 5 YEARS, PROCEED TO QUESTION 17.

15. Over the past 5 years, has your average number of clients changed? (Please check)

- significantly increased
- moderately increased
- no change
- moderately decreased
- significantly decreased

16. Have you made any changes to your marketing techniques within the last 5 years? (Please check)

Yes No

If yes, what changes have been made? (Write in)

17. Over the next 5 years, do you expect your volume of business will change? (Please check)

- significantly increase
- moderately increase
- no change
- moderately decrease
- significantly decrease

18. Which **three** of the following factors do you think will be the most important in attracting clientele to your operation in the future? (Please check 3)

Factor	Importance
the abundance of fish resources	()
the opportunity to catch large (trophy) fish . . .	()
the opportunity to catch unique species	()
desire for a wilderness experience	()
scenic beauty of the environment	()
availability of other recreational activities . .	()
amenities of the lodge/camp	()
the location of your operation	()
your advertising efforts	()

19. Will your marketing strategies be focused on the above three factors in your future operations? (Please check)

() Yes () No

20. At the present time, which of the following factors **best** describes your business intentions in the next 5 years? (Please check).

- () expand your existing operations
- () diversify by offering different services
(e.g., wilderness canoeing, wildlife photography, hiking, etc.)
- () diversify by offering different fishing opportunities
- () maintain current operations
- () reduce your present operations
- () dispende operation
- () no opinion

Resource Utilization

21. From the fish species listed below, what is the relative importance of the game fishes to your operation? Please respond to each statement by checking a box that corresponds to a number in the scale below. You can think of the numbers being: 1 = very important; 2 = moderately important; 3 = neutral; 4 = not very important; 5 = not important; 6 = species not in area.

Species	Very Important		3	Least Important		Species not in Area 6
	1	2		4	5	
Walleye	()	()	()	()	()	()
Northern Pike	()	()	()	()	()	()
Lake Trout	()	()	()	()	()	()
Grayling	()	()	()	()	()	()
Smallmouth Bass	()	()	()	()	()	()
Whitefish	()	()	()	()	()	()
Brook Trout	()	()	()	()	()	()
Stocked Trout	()	()	()	()	()	()
other (write in) _____	()	()	()	()	()	()

22. From the fish species listed below, which species is most often caught by your clients? (Please rank the species accordingly. 1 denotes the species most often caught through to 7 which represents the species least often caught.)

Rank (1 to 7)	Species
_____	Walleye
_____	Northern Pike
_____	Lake Trout
_____	Grayling
_____	Smallmouth Bass
_____	Whitefish
_____	Brook Trout
_____	Stocked Trout
_____	Other (Write in) _____

23. To determine the existing levels of resources harvested, please estimate the number and size of fish your average client harvested for meals (e.g., shore lunches) and took home from your operation? **(Write in)**

STATEMENT	FISH SPECIES							
	Walleye	Northern Pike	Lake Trout	Grayling	Smallmouth Bass	Whitefish	Brook Trout	Other _____
Number of fish harvested for meals	_____	_____	_____	_____	_____	_____	_____	_____
Average size of fish harvested (cm)	_____	_____	_____	_____	_____	_____	_____	_____
Number of fish taken home	_____	_____	_____	_____	_____	_____	_____	_____
Average size of fish taken home (cm)	_____	_____	_____	_____	_____	_____	_____	_____

24. Have you experienced a change in the number of fish harvested over the last 5 years? **(Please check)**

a significant decline a moderate increase
 a moderate decline a significant increase
 no real change

25. Have you experienced a change in the size of fish harvested over the last 5 years?

a significant decline a moderate increase
 a moderate decline a significant increase
 no real change

26. a.) Are there sufficient fish stocks in your area of operation to satisfy your clients? **(Please check)**

Yes No

- b.) Is there a direct relationship between quantity and quality of the fishery resource base and the success of your operation? **(Please check)**

Yes No

- c.) Would a decline in the quality and quantity of the fishery resource base affect your business? **(Please check)**

no real change
 a moderate decline
 a substantial decline

d.) If a decline in fish catches decreased your business, which 2 of the following features would receive greater emphasis for attracting clientele? (Please check 2 features)

- the opportunity to fish in unpolluted water
- the opportunity to fish in secluded lakes and rivers
- the opportunity of a wilderness experience
- the amenities of the lodge/camp
- the availability of recreational activities other than fishing (eg. canoeing, hiking, sightseeing, photography, etc.)

RESOURCE MANAGEMENT PRACTICES

27. Listed below are a number of resource management practices. Which practices are currently used by your operation or could be introduced? (Please check)

PRACTICE	OPERATIONAL POLICY				INTRODUCTION DESIRED	NOW IN REGULATION
	ALWAYS	USUALLY	OCCASIONALLY	SELDOM/NEVER		
Reduced species limits for high quality management	()	()	()	()	()	()
Catch and release, except small fish for meals	()	()	()	()	()	()
One trophy sized fish species per client	()	()	()	()	()	()
Size restrictions for trophy species	()	()	()	()	()	()
Use of slot limits	()	()	()	()	()	()
Total catch and release or no kill policy	()	()	()	()	()	()
Use of barbless hooks	()	()	()	()	()	()
Use of single hooks	()	()	()	()	()	()
Availability of lifesize species replicas upon request	()	()	()	()	()	()
Compliance with the sports fishing regulations	()	()	()	()	()	()
Encourage the registration of master angler catches	()	()	()	()	()	()
Trophy fish registered with the master angler program	()	()	()	()	()	()
Photos of clients and catch by trained guides	()	()	()	()	()	()

28. Please write in which changes you feel would help maintain or improve the management of the resource base? (Use the back of this page if additional space is required.)

29. Which factors listed below do you consider to be constraints on the long-term viability or future expansion of your operation? Please respond to each of the following statements by checking a box that corresponds to a number from the scale below. You can think of the numbers being: 1 = very serious; 2 = moderately serious; 3 = neutral; 4 = not very serious; 5 = not serious.

STATEMENT	VERY	2	3	4	NOT	NO
	SERIOUS				SERIOUS	OPINION
	1				5	6
Long-Term resource security	()	()	()	()	()	()
Escalating operating costs	()	()	()	()	()	()
Fishery resources available to expand operations	()	()	()	()	()	()
Allocation of fish resources between competing uses (sport/commercial conflicts) . .	()	()	()	()	()	()
Competition from recreational anglers not staying at your operation	()	()	()	()	()	()
Enforcement of the sport fisheries regulations	()	()	()	()	()	()
Government restrictions on development of lodges or outcamp operations	()	()	()	()	()	()
Funds available for expansion/upgrading	()	()	()	()	()	()

30. Resource Tenure refers to the possession of conditional access rights to the resource base, in return for its maintenance over time. We want your opinion about the importance of issues and concerns regarding resource tenure. Please respond to the following statements by checking a box that corresponds to the scale below.

STATEMENT	CONSIDERABLE IMPORTANCE	MODERATE IMPORTANCE	MINIMAL IMPORTANCE
Would a requirement for tenure in resource base usage be regarded as an integral part of your operation?	()	()	()
Would tenure through the acquisition of long-term licences and/or leases, be considered essential to the viability of your operation?	()	()	()
Would a limit of a licence with an extended period of time be viewed as a measure of preserving the quality of the resource base?	()	()	()
Would a greater allocation of resources be regarded as a means of sustaining your operation?	()	()	()

THANK YOU FOR YOUR PARTICIPATION
 IN COMPLETING THIS QUESTIONNAIRE

APPENDIX B:
THE COVER LETTER

c/o John Cowan & Carl Wall
Manitoba Fisheries Branch
Box 20
1495 St. James Street
Winnipeg, Manitoba
R3H 0W9

October, 1989

Dear Lodge Operator:

The University of Manitoba, Department of Geography, in cooperation with Travel Manitoba and Manitoba Natural Resources, Fisheries Branch, is conducting a survey of Manitoba's commercial sport fishing industry. The objectives of the survey are to: 1) evaluate the impact of angling regulation changes on the industry 2) determine the role of resource utilization and 3) examine various marketing techniques and their effectiveness.

Data is being gathered through the use of a comprehensive questionnaire and all individual information will remain strictly confidential. It is expected that data analysis and a final report will be issued when the research is finalized. Each participating tourist operator will receive an update of the completed report. The data will also be used to complete the requirements of my Master's Thesis.

The questionnaire is enclosed along with a pre-paid return envelope. Please complete the questionnaire and return it as soon as possible. Should you have any questions, please contact me at Mr. Jan Collins at or Mr. Carl Wall at

Thanking you in advance for your time and consideration, I remain yours truly.

John Cowan
Graduate Student
enc.