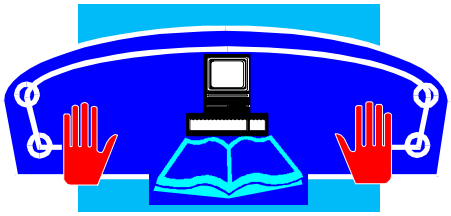

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REPORT SUMMARY

INLAND FISHERIES OF THE NORTHWEST TERRITORIES
CHARACTERISTICS OF THE EXPORT MARKET

PREPARED BY THE NATURAL RESOURCES SECTION
ECONOMIC DEVELOPMENT AND TOURISM

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REPORT SUMMARY

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BACKGROUND

In the late 1960's the Federal Government became concerned about the instability and weakness of export prices for Canadian freshwater fish and the very low incomes received by fishermen. A Royal Commission was set up to investigate the freshwater fish industry, of Ontario, the Prairie provinces and the NWT. The Commission concluded that domestic handling and processing were inefficient and costly and that Canadian freshwater fish companies had a very weak bargaining position in the export market. As a result, Canadian companies were being taken advantage of by the large American buyers and fishermen were receiving an unduly small share of the market value for their products.

In order to address the problem the Government established the Freshwater Fish Marketing Corporation (FFMC) to provide fishermen with additional bargaining power. FFMC was given a monopoly over interprovincial and export trade in freshwater fish and fish products produced in Northwestern Ontario, Manitoba, Saskatchewan, Alberta and the NWT, and is legally obligated to purchase and market the total catch within its jurisdiction. Presently, all export production from the NWT is marketed by the FFMC .

FFMC uses a species pooling system in which all fishermen producing the same species receive the same price for their fish, regardless of the place of origin. Since 1977 the Government of the NWT has been subsidizing the fishery on Great Slave Lake to equalize certain costs between the NWT and other areas of the FFMC jurisdiction. In recent years, the subsidy has consisted of a price subsidy on whitefish, a lake freighting subsidy and a winter freighting subsidy.

The freshwater fishermen of the NWT have expressed concern over the price received for fish, in particular lake whitefish, from FFMC. The NWT Fisherments Federation believes that whitefish from Great Slave Lake can be marketed for a higher price than whitefish from southern lakes, and these higher returns should be reflected in the price paid to fishermen. The ability of FFMC to maximize returns to NWT fishermen, and the necessity for an ongoing government subsidy to cover high operating costs have both come under question.

The purpose of this study is to examine the markets for Great Slave Lake fish, particular whitefish, and to identify market opportunities and constraints based on the products NWT fishermen have to offer. From this information a marketing strategy has been developed to direct NWT commercial freshwater fisheries development so that it provides maximum benefits to NWT fishermen. Three options for future development are examined; maintaining the

present arrangements with FFMC, withdrawing from FFMC, and enhancing arrangements with FFMC.

NWT FRESHWATER FISH PRODUCTION

At present, there are only three inland lakes in the NWT that are fished commercially on a regular basis; Great Slave Lake, Kakisa Lake and Thathlina Lake. Thathlina and Kakisa are small pickerel lakes located south of Hay River. They are fished by a few native fishermen and the catch is flown to Hay River.

The Great Slave Lake fishery is the largest inland lake fishery in the NWT. It was established between 1945 and 1950 by Alberta and Manitoba fish companies when catches of more than 5 million pounds a year were taken. The annual catch declined through the 1950's and 1960's to the present level of approximately 3 million pounds a year.

For the past 15 years, Great Slave Lake has had a total combined quota of 3 million pounds for all species of fish. The quota begins in the winter and continues into the summer until the quota is finished and the lake must shut down. The average annual production since 1975 has been relatively constant at 2.5 million pounds.

There are three lake stations on Great Slave Lake and a fish plant in Hay River. The lake stations receive fish during the open water season and are located in heavily fished areas of the lake so that fishermen do not have to travel long distances to deliver their catch. Fish are flown from the Simpson Island and Morraine

Bay stations to the Hay River plant and are transported by boat from the Wool Bay station to Yellowknife and then trucked to Hay River. The fish are repacked at the Hay River plant and shipped to the FFMC plant in Transcona.

During the winter season (November to April), the fishery operates without the lake stations. Fishermen have camps on the lake which they outfit from Hay River and fish are either delivered to the Hay River plant by bombardier, or transported by truck. All fish harvested in the winter are sold to the fresh fish market and must be delivered fresh to the plant. At one time the Hay River plant was used for freezing and processing but these operations have been shut down due to high operating costs. The main fishing season is during July, August, September, and part of October if the lake quota is not taken by this time. Late July and August are the heaviest fishing period. The timing fits in well with the FFMC production cycle because Lake Winnipeg is closed from the middle of July to the beginning of September. This means that Great Slave Lake fish is available when supply is low and therefore much of it is sold fresh and brings a higher price than frozen product.

Whitefish, trout, northern pike, inconnu and pickerel are all harvested from Great Slave Lake. In the early years of the commercial fishery, lake trout was the predominant species. However, trout production has dropped off to an average of 166,000 pounds (6.8% of total catch) for 1975-1988. The amount of trout produced seems to vary directly with price and when prices are low

fishermen reduce their catch. Lake trout has also been affected by consumer perception that this type of fish has been affected by a number of diseases. This has resulted in a major reduction in consumer demand.

Northern pike was once considered a low value rough fish but is currently enjoying a strong market in France and Finland. Pike production in Great Slave Lake averaged 215,000 pounds (8.7% of total catch) between 1975 - 1988.

Inconnu is a fish native to Great Slave Lake that is used primarily by smoke houses. Production varies widely but averaged 119,000 pounds (4.8% of total catch) for 1975 - 1988. Only a small number of fishermen harvest inconnu and production seems to be quite price sensitive. If the price is too low fishermen reduce their fishing effort. Inconnu is sold into the specialty smoked market and is used as a substitute for smoker jumbo whitefish.

Pickerel is the most profitable of the freshwater species. Unfortunately, there is very little pickerel in Great Slave Lake. Production averaged 19,000 pounds for the period 1975-1988, less than 1% of the total fish produced in the NWT. Pickerel production is more important to the Thathlina and Kakisa fishermen since it makes up a high percentage of their catch.

Whitefish is by far the most important of the freshwater species caught in Great Slave Lake and in 1988 made up 86% of the total catch. Essentially all of the whitefish caught in Great Slave Lake meet the quality standards for export grade and could

be sold to the USA. A small percentage of the whitefish catch is sold to smokehouses. Annual whitefish production between 1975-1988 averaged 1,948,000 pounds.

Winter production on Great Slave Lake has been increasing over the past few years and in 1988 represented more than 50-% of annual production. The lack of whitefish supply from the Great Lakes during the winter means that FFMC is able to acquire a significant price premium for this fish during the winter months. As well, a significant portion of the Great Slave "Lake summer catch was delivered in August when fresh sales were high bringing in a higher price than frozen product.

Currently the NWT produces less than 3% of the national freshwater fish production, down from 12% in 1949. The decline is due to a decline in the Great Slave Lake fishery and a relative increase in production from other Canadian lakes. However, the NWT has maintained a 12% share of the FFMC's whitefish production. Great Slave Lake accounts for 90% of the NWT's total freshwater fish production. It is unlikely that there will be any major increase in the volumes of fish harvested from Great Slave Lake but there is potential to increase production from other inland lakes that are relatively close to Great Slave Lake.

FRESHWATER FISH MARKETS

The USA is an extremely large market for freshwater fish and accounts for approximately 70% of FFMC's sales. The domestic market is second at 15% and the remainder is split equally between

Finland and France. Fresh fish generates a greater profit than frozen or processed fish therefore a fishery can increase its revenue by timing its production to meet the best fresh fish markets. Detroit and Chicago are the two largest markets for fresh whitefish because of high consumer awareness and a preference for whitefish among the large Jewish and Catholic segments of the population.

Whitefish faces strong competition from other types of fish, and other food products. Interviews with selected buyers indicate that fresh whitefish makes UP only 23% of their total fish purchases and smoker whitefish represents 18% of total fish purchases. Approximately 77% of major distributors' fish purchases are other types of fish.

Ocean fish is a major competitor for new markets, particularly in the coastal cities. Buyers may prefer 9
to purchase ocean fish because they tend to be larger and require less boning, and distributors can take advantage of promotional schemes that other countries are offering. In coastal cities, "the proximity of the ocean and the related consumer awareness gives ocean fish a competitive strength over freshwater fishes.

The effects of aquiculture are also starting to appear in the marketplace. Farm produced salmon, common trout and catfish are usually available for sale by the same dealer that carries whitefish products. Farmed fish are perceived to be less polluted than naturally harvested fish, are competitively priced and less

subject to seasonal price variation because of a more predictable supply. Fish farms are able to benefit from reduced transportation, harvesting and storage costs as the fish can be raised close to the target markets and delivered fresh. Aquiculture is growing rapidly and its impact on the freshwater fish industry of Canada will become more significant over the next few years.

Most fresh whitefish is sold to restaurants who are willing to pay a higher price than retail stores are. Supermarkets have been reluctant provide shelf space for whitefish because the price is too high relative to other fresh food products. Fish is presently receiving significant price pressures from poultry in major food retail chains.

The buyers interviewed indicated that they only bought 15-20% of their whitefish from FFMC.

The greatest source of competition for fresh whitefish comes from Great Lakes whitefish. Whitefish production in the Great Lakes begins in April and May and causes a drop in whitefish prices from $1.50 per lb. U.S. to $0.65 per lb. U.S.

Most buyers in the US said they found a distinct difference between Great Lakes whitefish and FFMC whitefish with the quality of Great Lakes whitefish consistently higher. Many buyers felt that FFMC fish were not chilled quickly enough after being caught and that the fish had been handled excessively. This results in poorer quality and a lower-price for FFMC fish. Great Lakes

whitefish is fresher and lighter in colour than FFMC whitefish and comes in a greater range of sizes allowing the distributor to target markets more effectively.

The Great Lakes fishermen associations are also willing to compete on price, whereas FFMC is not as price-sensitive. Most buyers indicated that they would purchase a lot more whitefish from the Great Lakes producers if it were available. At the present time, buyers purchase as much whitefish as they can from the Great Lakes producers and then supplement their requirements by buying whitefish from FFMC.

Competition from the Great Lakes fishery is beyond the control of the FFMC and the level of production from that fishery greatly affects the returns to FFMC fishermen. Great Lakes producers enjoy the advantages of being close to the major markets and of having a larger domestic market, better economies of scale and lower overhead as their fish can be delivered fresh directly to the market.

Although buyers can distinguish between Great Lakes whitefish and FFMC whitefish, they cannot distinguish NWT whitefish from other FFMC whitefish on the basis of quality, and none of the buyers were willing to pay a premium price for NWT fish over the price paid for other FFMC fish. In fact, buyers indicated that they prefer to buy whitefish from the Great Lakes over whitefish from FFMC sources, and they preferred whitefish from Lake Winnipeg over whitefish from Great Slave Lake.

The NWT's major marketing strength is their ability to supply fresh fish during August and the winter months when there is no supply from the Great Lakes. This corresponds with major religious holidays throughout the winter and results in a significant price premium for whitefish from the NWT. Great Slave Lake has always been a major supplier of fresh whitefish for the Jewish holiday of Passover, when the conditions of supply and demand are such that whitefish can sell for up to three times the lowest summer price.

Buyers for smoke houses were also interviewed as NWT fishermen feel that there is strong potential for increased income from sales to smoke houses. The smoke house buyers agreed that there is a major difference between Great Lakes whitefish and NWT smoker whitefish in terms of size and fat content, with Great Lakes whitefish being of superior quality. Like fresh whitefish buyers, smoker whitefish buyers buy as much production as they can from the Great Lakes and supplement their requirements with smoker whitefish from the FFMC.

SALES PROJECTIONS

In order to determine the best option for marketing NWT freshwater fish, it's necessary to know how much fish is produced and its market value. Based on average production over the last three years and the quantities and prices that buyers indicated they would accept, potential sales for NWT freshwater fish have been projected.

It is estimated that 1,060,000 pounds of fresh whitefish could be sold during the winter for an average price of $1.25 a pound. Eighty percent of production would be sold in Detroit and 20% in Chicago. During the summer an estimated 1,220,000 pounds of whitefish could be sold for prices ranging between $.85 and $1.20 a pound. This estimate is based on fifty percent of the summer whitefish sold fresh, 500,000 pounds sold to the smoker market, 6-0,000 pounds sold to the IQF market for fillets, and the remainder sold frozen. Fresh and frozen fish would be sold in Detroit and Chicago and smoker fish would be sold in New York and Los Angeles.

Northern pike sales are projected to be 198,000 pounds. Fifty percent would be sold fresh for $1.05 a pound, and the other fifty percent would be sold frozen for $0.80 a pound. France and Finland are the premium markets for pike but overseas sales are shipped in container loads. Pike production in the NWT is too small to take advantage of these markets therefore it would be sold in the Detroit/Chicago market.

It is also projected that 166,100 pounds of lake trout could be sold to the Detroit/Chicago market at $1.00 a pound, 103,500 pounds of frozen inconnu could be sold to smoke houses in New York, Philadelphia and Los Angeles at $1.20 a pound, and 37,000 pounds of pickerel could be sold to existing whitefish buyers for $4.00 a pound.

These projections represent a total sales volume of 2,687,000 pounds and an annual net sales revenue of $3,283,000.

NWT INLAND FISHERIES - CHARACTERISTICS OF THE EXPORT MARKET

MARKETING OPTIONS

There are three general options open to NWT freshwater fishermen for marketing their product; maintaining the present arrangements with FFMC, withdrawing from FFMC and enhancing arrangements with FFMC .

MAINTAINING PRESENT ARRANGEMENTS WITH FFMC

The objectives of FFMC are to market fish in an orderly manner, promote export and interprovincial trade in freshwater fish and most importantly, to achieve the greatest possible returns to commercial fishermen. Its operations include the purchasing, processing, storage, marketing and shipping of freshwater fish in fresh and frozen forms from Manitoba, Saskatchewan, Alberta, the NWT and the northwestern part of Ontario.

At the beginning of each operating year, FFMC attempts to predict the amount of fish that will be caught and the price it will bring in the market. Based on these predictions it projects the net sales revenue for each species for the year.

Initial prices to fishermen are set at approximately 80% of the expected net revenues for the upcoming year. Final payments, based on actual net revenues by species, are made to the fishermen at the end of each year. FFMC has been conservative in setting initial prices to prevent stimulating supply to a point where it exceeds demand, since this could be detrimental to all fishermen. Higher prices are paid during the winter months when supply is low to ensure a relatively stable supply of fresh fish throughout the

year. Transportation costs to Winnipeg are paid by the fishermen and all other costs are pooled by species and paid by FFMC.

The price fishermen received from FFMC for summer export whitefish during the last decade has varied between $.31 and $.39/lb. Fishermen also received a price subsidy on whitefish from the Government of the NWT and FFMC received a freighting subsidy to cover the costs of lake freighting to Hay River. Winter whitefish prices generally averaged between $.59 and $.68/lb.

It has been estimated that at the current level of operating costs, fishermen require a price of $.59/lb during the summer and $.75/lb during the winter in order to receive a reasonable wage for their own time and effort. The price received from FFMC for whitefish is not adequate to cover these costs without additional price support.

In spite of strong competition from the Great Lakes fishery, FFMC has been successful in the marketplace for a number of reasons. They are able to supply fresh whitefish during the winter when there is no supply available from the Great Lakes, they have a large supply and a good distribution system so that customers are confident in the reliability of supply and quality, and they are able to provide a variety of different types and forms of fish, enabling the buyers to save time by dealing with one source of supply. Customers felt that FFMC provided good service, that they were experienced dealers and excellent negotiators, and that they had excellent daily market information on supply and demand.

However, customers also identified a number of weaknesses in FFMC . The distance from the market and their inability to maintain product quality after fish is caught results in buyers preferring Great Lakes fish. FFMC serves only as a supplemental source. Many customers feel that FFMC prices are too high relative to quality and that a better grading system for colour and size is needed. They also indicated that FFMC should be'more aggressive and do a better job promoting their product in retail stores, and that there should be 'more focus on customer loyalty rather than on maximizing price.

WITHDRAWING FROM FFMC

If the NWT fishing industry withdraws from FFMC it has two main marketing options; developing new markets in locations where FFMC is not a major competitor, or selling fish to existing wholesalers/distributors. Developing new markets would be very difficult and would require a major promotional campaign. The volume of fish produced in the NWT and the financial resources available within the industry are not great enough to pursue-new markets until existing markets are focussed on.

Existing markets present a much greater opportunity for establishing a viable marketing strategy. Fresh whitefish buyers indicated that they would purchase 50 to 100 percent of their whitefish requirements from the NWT as long as quality and service are comparable to FFMC and the price is no higher. If the NWT freshwater fishery was to withdraw from FFMC it could capitalize

on FFMC's weaknesses to promote their own products and take advantage of certain opportunities in the market.

For example, at present, the premium price paid for winter whitefish is pooled for the benefit of all FFMC fishermen. With independent marketing NWT fishermen would be able to benefit from this timing premium more directly. However, the amount of the timing premium will depend on FFMC's ability to protect its fresh markets. FFMC can be expected to encourage winter production in other areas to compete with Great Slave Lake fish.

Independent and direct marketing could also provide better market feedback to NWT fishermen and fish processors, enabling them to be more aware and responsive to customer needs and concerns.

New markets could be developed that benefit NWT fishermen directly rather than having the benefits divided among all of the FFMC fishermen. NWT fishermen may be able to develop a "northern mystique" for their products and so create a specific northern niche reducing direct competition with the Great Lakes and FFMC. However, since buyers have indicated that they cannot distinguish between NWT whitefish and other FFMC whitefish, considerable resources would be required to promote the image of NWT whitefish and to establish a reputation for service and quality.

In spite of the opportunities in the market, the NWT also faces a number of constraints if it chooses to market fish independently. By withdrawing from FFMC, the NWT fishery will lose access to FFMC's expertise in processing, marketing and financial

management and will have to compete directly with FFMC. As a result, the NWT will have to be more aggressive than FFMC to acquire a market share, and will probably receive lower prices because FFMC has a larger sales force, greater market intelligence and experience, and a greater variety and volume of fish products to offer.

The NWT may also have-problems providing a stable supply of fish. If the supply is not reliable, the customer base will be jeopardized. The NWT is also furthest from the marketplace and this will be reflected in the freshness of the product giving FFMC a competitive advantage. Some potential clients felt that quality would decrease if they bought directly from the NW'T.

In order to market directly, the NWT will have to identify new wholesalers and entice present buyers to switch from FFMC and Great Lakes suppliers. From the wholesalers' point of view, dealing directly with the NWT means dealing with one more supplier that can provide only a very small portion of the buyers' needs. This may be an inconvenience, and the wholesaler will expect to be compensated. The wholesalers' switching cost will have to be covered by NWT producers through incentives, terms and other promotional activities.

Total costs of marketing directly, for promotional materials, incentives, a Sales Manager and support staff is expected to be $309,000 a year.

Whitefish is considered a commodity product and price is determined by market supply and demand. Individual suppliers have very little influence over the price. Since the NWT cannot expect to receive a higher price than FFMC does for its fish, the only way to increase returns to the fishermen is to reduce the costs of processing and distribution.

It is assumed that for the near future the fishery will continue to be run in the same way whether the NWT is inside or outside the jurisdiction of FFMC. Therefore the fishery would include the existing lake stations, a system to transport the fish from the stations to a fish processing or freezing plant and then to market, and a fish plant with sufficient capacity to freeze and process fish that cannot be readily sold fresh. Freezing capacity could be provided by purchasing and renovating the present facility at Hay River, or by building a new fish processing plant.

The major problem with the present Hay River plant is that it is oversized and therefore not cost efficient. Although the Hay River plant was used for freezing in the past, FFMC discontinued its freezing operations because of high operating costs and removed the freezing equipment. The estimated cost of buying the Hay River plant from FFMC, renovating it and reinstalling freezing equipment is estimated at approximately $2,500,000.

The second alternative is to build a smaller freezing plant designed to meet the requirements of the fishery. It would need sufficient capacity to handle 25,000 pounds of fish daily, 17,000

pounds of which could be frozen, and cold storage capacity for 60,000 pounds of frozen fish. The cost of building and equipping a new facility is estimated at $1,687,000.

To determine which of these two options would be most beneficial, and whether either of them would provide a financial advantage over staying in FFMC, two types of analysis were conducted. First, a cash flow projection was performed to determine how much revenue would be available to fishermen under each option. The operating costs under each of the two plant options were estimated and subtracted from the projected sales revenues for both summer and winter seasons.

The cash flow analysis shows that if a new plant is built in Hay River, the total projected annual net revenue available to fishermen would be $1,612,000 (FOB Hay River). This exceeds the projected amount available from FFMC by $188,000, assuming a final payment of 20%. On a per pound basis, there would be $.47/lb available for summer whitefish production and $.78/lb for winter whitefish production, with a yearly average of $.60/lb, using 1989/90 projections.

If the existing plant in Hay River is renovated, the net amount available to fishermen would only be $1,478,000 because depreciation and long term interest expenses for the renovated plant are substantially greater than for the new plant.

These figures assume that capital costs for start up would be totally financed with debt. However, grants would likely be

available to finance a large portion of the capital cost, reducing the depreciation and interest charges. If capital grants were used to offset the costs of building a new plant or renovating the existing plant, fishermen would receive an average of $.50/lb for their summer whitefish catch and $.88/lb for the winter catch, using 1989/90 projections.

As mentioned earlier, a fisherman requires an average price of $.59/pound for summer fish and $.75/pound for winter fish to cover expenses and receive a fair wage for their' time and effort-. This assumes that the cost of lake freighting is subsidized. If capital grants are available to cover start-up costs and lake freighting subsidies are maintained, the winter fishery could meet the fishermen's income needs, but the summer fishery would still require subsidy support.

The final 1989/90 payments from FFMC are not yet available, but if they represent 20% of the total payment, FFMC payments for whitefish will be $.42/lb for summer whitefish production and $.78/lb for winter whitefish production. However, in "the production years of 1987/1988 and 1986/87 FFMC final payments were approximately 38% of the total fish price. If the 1988/89 final payments are this high, then fishermen would receive a higher price from FFMC than they would if they were marketing independently.

For the 1987-88 summer production season, payments from FFMC exceeded the amount that would be available outside of FFMC by $.07 a -pound.

The second analysis performed was net present value capital budgeting. This is a technique used to determine whether a capital investment should be made and to choose the best option when there is more than one alternative. The analysis discounts the future cash flows expected from a project to determine their present value, and the capital cost of the project is then subtracted. The difference is called the net present value. If the net present value is positive, the project is expected to be a good investment. If the net present value is negative, the project" is considered to be a poor investment.

The analysis indicates that a new plant, built without any capital grants, has a negative net present value of $644,000. This means that the project would require capital grants of at least $644,000 before it" would show a positive cash flow and could be considered economically viable.

For the alternative of renovating the existing plant (capital cost of $2,500,000) , a net present value deficiency of $1,238,000 was calculated. Capital grants (or a reduction in the purchase price) of at least this amount would be required before this project could be viewed as economically viable.

If the NWT withdraws from FFMC, there are some additional benefits in the form of local wages that would result from taking over marketing and operation of the plant. If these are included in the net present value analysis, a positive net present value of $282,000 is calculated for the new plant proposal. However,

capital grants of at least $644,000 would still be required to offset the costs of the new plant.

Given the risks and constraints inherent in independent marketing, the variation in prices and final payments, the small possible premium available if the NWT markets independently and the high level of capital grants required, the potential returns are too small to recommend that Great Slave Lake fishermen operate outside of the FFMC.

ENHANCING ARRANGEMENTS WITH FFMC

A review was made of FFMC's pooling and pricing policies to determine if there are ways that present arrangements with FFMC could be enhanced to increase returns to NWT fishermen.

A provincial pooling system where the NWT is in a separate pool from the rest of the FFMC is not recommended. This could result in competition within FFMC for the right to sell fish in the most profitable form and there is a high probability that the NWT would lose due to its distance from FFMC, its limited pickerel production, and other market factors. An analysis of provincial pooling has also shown that changing market conditions may result in decreased revenues for NWT fishermen.

The possibility of having some of the more profitable species, such as pickerel, subsidize whitefish was also examined. FFMC has the authority to use any pooling system it chooses and could pool all species to help spread out costs. However, subsidizing one species with returns from a-nether species would encourage the

production of less profitable species, while discouraging the production of more profitable species. The result would be a reduction in profitability for the total fishery. In addition, pickerel and other more profitable species often have much smaller quotas and higher harvesting costs so pickerel fishermen require the higher price to make a living.

However, there are two areas of FFMC's pooling system where changes could be considered. First, there may be a case for NWT fishermen receiving more for their winter catch than they do presently. Great Slave Lake whitefish have traditionally brought a higher price in the market than other FFMC whitefish because of the excellent timing of deliveries, particularly in key winter months. Research indicates that the timing of production is becoming even better. FFMC has indicated that present winter premiums are high enough to guarantee production and they are concerned that an additional premium on the initial payment might encourage excess production that could not be sold fresh. One possibility that may benefit NWT fishermen would be a winter premium based on actual revenues earned on fresh winter whitefish sales, and added to the final payment.

Second, FFMC charges part of the overhead costs of its Transcona plant to each species. The way in which these charges are allocated could be changed to be more beneficial to the NWT whitefish. However, FFMC indicates that they have built in modifications to ensure that-overhead cost allocation is fair.

Before requesting any changes to the FFMC pooling system more analysis is needed to ensure that a change would benefit NWT fishermen. FFMC has indicated that changes to the system would only be made if it was shown that there were inequities in the system that discriminate against NWT fishermen. Changes will not be made simply to accommodate the NWT fishermen or the Government of the NWT.

RECOMMENDATIONS

The freshwater fish catch from Great Slave Lake is almost entirely whitefish. As a commodity product, the price of whitefish is determined by supply and demand so one supplier cannot demand a premium price over another supplier. In addition, NWT whitefish is indistinguishable from other FFMC whitefish, and FFMC whitefish is only purchased when higher quality Great Lakes whitefish is not available. Therefore, if the NWT operated outside of FFMC, it could not charge a higher price for its whitefish on the basis of quality.

NWT whitefish does have the advantage of being available during the winter months when fresh Great Lakes whitefish is not, resulting in a price premium. However, analysis shows that the costs involved to operate outside of FFMC, the expected competition from FFMC, the variability of market prices and the risks inherent in setting up new processing and distribution systems far outweigh any benefits that the NWT would receive from operating outside of

FFMC . It is therefore recommended that the NWT freshwater fishery stay within FFMC's jurisdiction.

It may be possible to increase the benefits that NWT fishermen receive within FFMC through a final payment timing premium for winter production. More analysis is required to investigate this possibility.

At the present estimated level of operating costs, the price available for whitefish is not high enough to provide a reasonable wage to. fishermen without additional subsidy. 'Therefore, it is recommended that the Government of the NWT not remove subsidies from the NWT fishery without further analysis of fishermen's net incomes.