



Economic and Social Contributions of the Manitoba Commercial Fishing and Fish Processing Industries

Final Report

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LLP

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1. EXECUTIVE SUMMARY

BACKGROUND AND STUDY PURPOSE

The Pioneer Commercial Fishers of Manitoba (“PCFM”) commissioned MNP LLP (“MNP”) to carry out an assessment of the economic and social contributions of the Manitoba commercial fishing and fish processing industries (“the Industries”).

OVERVIEW OF THE INDUSTRIES

COMMERCIAL FISHING

Manitoba's commercial fishing industry is comprised of over 1,600 commercial fishers that harvest freshwater fish from lakes across Manitoba for the purpose of commercial profit.¹ Commercial fishers deliver their catch to approximately 40 fish sheds located throughout the province, where fish is collected, iced, packed and then transported to processing establishments for processing and sale.²

In 2018, Manitoba commercial fishers harvested approximately 12.2 million kilograms of freshwater fish with an estimated production value of \$31.6 million.³ Yellow Pickerel, Lake Whitefish, and Sucker are the top species in terms of production volumes in the province.⁴ The majority of the harvesting was concentrated on Lake Winnipeg, Lake Winnipegosis, and Lake Manitoba, with Lake Winnipeg accounting for the largest share of production in the province.⁵ In 2018, Lake Winnipeg accounted for approximately 55 percent of the weight of all fish harvested, and 64 percent of the production value.⁶

FISH PROCESSING

Manitoba's fish processing industry includes businesses that buy, process and market freshwater fish harvested for commercial sale. The vast majority of fish harvested in Manitoba is sold to and processed by Freshwater Fish Corporation (“FFMC”). FFMC is a Crown corporation established in 1969 under the Freshwater Fish Marketing Act, to market and trade in fish, fish products and fish by-products within and outside of Canada. In December 2017, the Government of Manitoba withdrew from the Freshwater Fish Marketing Act, in favour of an open market for commercially harvested fish. Since then, a small number of fishers now market their fish through alternative distribution channels.^{7,8}

In 2018, the majority (approximately 84 percent) of fish processed in Manitoba was harvested within the province. In 2018, the estimated total value of processed freshwater fish in Manitoba was \$65.5 million. Most processed freshwater fish products were destined for international markets, primarily the United States and Europe. In 2018, processors exported approximately \$59 million worth of freshwater fish processed products.⁹

¹ Transformation on the Freshwater Fish Marketing Corporation: Ministerial Advisory Panel. Fisheries and Oceans Canada, Available here: <http://www.dfo-mpo.gc.ca/fisheries-peches/consultation/ffmc-cpea/transformation-ffmc-cpea-eng.html#toc-11>

² Data provided by the Government of Manitoba.

³ Estimated by MNP from data provided by the Government of Manitoba, and from fish processors located in Manitoba.

⁴ 2017 Freshwater Fisheries – Catches and Landed Values by Species, by Province/Territory (Preliminary). DFO. Retrieved from: <http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/freshwater-eaudouce/2017-eng.htm>

⁵ 2017 Freshwater Fisheries – Catches and Landed Values by Species, by Province/Territory (Preliminary). DFO. Retrieved from: <http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/freshwater-eaudouce/2017-eng.htm>

⁶ MNP Estimate.

⁷ Transformation on the Freshwater Fish Marketing Corporation: Ministerial Advisory Panel. Fisheries and Oceans Canada, Available here: <http://www.dfo-mpo.gc.ca/fisheries-peches/consultation/ffmc-cpea/transformation-ffmc-cpea-eng.html#toc-11>

⁸ *ibid*

⁹ Innovation, Science, and Economic Development Canada (“ISED”), Trade Data for HS codes 0302 - fresh or chilled fish (excl fish fillets), 0303 - Frozen Fish (Excl Fish Fillets), 0304 - Fish Fillets and Other Fish Meat - Fresh, Chilled or Frozen, and 0305 - Fish (Incl. Fish Meal) - Dried, Salted, Smoked or in Brine (Accessed October 22, 2019).

ECONOMIC IMPACTS OF COMMERCIAL FISHING AND FISH PROCESSING IN MANITOBA IN 2018

Commercial fishers and fish processors create economic impacts through spending on employees and support staff, as well as spending on goods and services (e.g. equipment purchases, operating supplies, transportation expenses). Direct economic impacts are those that are created within the operations of commercial fishers and fish processors, while indirect and induced impacts are created with suppliers and other businesses.

Table A summarizes the estimated economic impacts generated by commercial fishing and fish processing in Manitoba in 2018.¹⁰

Table A. Economic Impacts of Commercial Fishing and Fish Processing in Manitoba in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Economic Impacts of Commercial Fishing						
Direct	\$31.6	\$17.0	424	\$1.4	\$1.9	\$0.9
Indirect and Induced	\$8.8	\$5.2	70	\$0.6	\$0.8	\$0.3
Total	\$40.4	\$22.2	494	\$2.0	\$2.7	\$1.2
Economic Impacts of Fish Processing						
Direct	\$30.6	\$16.7	239	\$2.1	\$2.0	\$0.3
Indirect and Induced	\$15.8	\$19.9	173	\$0.8	\$1.0	\$0.5
Total	\$46.4	\$36.6	412	\$2.9	\$3.0	\$0.8
Combined Economic Impacts						
Direct	\$62.2	\$33.7	663	\$3.5	\$3.9	\$1.2
Indirect and Induced	\$24.6	\$25.1	243	\$1.4	\$1.8	\$0.8
Total	\$86.8	\$58.8	906	\$4.9	\$5.7	\$2.0

¹⁰ Please note that the economic impacts presented in this report reflect only those associated with the harvesting and processing of Manitoba sourced fish.

ECONOMIC IMPACTS OF COMMERCIAL FISHING AND FISH PROCESSING FROM LAKE WINNIPEG IN 2018

Table B summarizes the estimated economic impacts generated by commercial fishing and fish processing from Lake Winnipeg in 2018.

Table B. Economic Impacts of Commercial Fishing and Fish Processing from Lake Winnipeg in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Economic Impacts of Commercial Fishing						
Direct	\$20.2	\$10.9	272	\$0.9	\$1.2	\$0.6
Indirect and Induced	\$5.6	\$3.3	45	\$0.4	\$0.5	\$0.2
Total	\$25.8	\$14.2	317	\$1.3	\$1.7	\$0.8
Economic Impacts of Fish Processing						
Direct	\$19.6	\$10.7	153	\$1.4	\$1.3	\$0.2
Indirect and Induced	\$10.1	\$12.7	111	\$0.5	\$0.6	\$0.3
Total	\$29.7	\$23.4	264	\$1.9	\$1.9	\$0.5
Combined Economic Impacts						
Direct	\$39.8	\$21.6	425	\$2.3	\$2.5	\$0.8
Indirect and Induced	\$15.7	\$16.0	156	\$0.9	\$1.1	\$0.5
Total	\$55.5	\$37.6	581	\$3.2	\$3.6	\$1.3

INDUSTRY COMPARISON

To provide perspective on the size of the economic impacts of the Manitoba commercial fishing and fish processing industries, it is useful to compare the impacts with those created by other industries. Three examples of other industries include home construction, horticulture, and culture/recreation:

- **Home Construction** - The total employment supported by the commercial fishing and fish processing industries in 2018 (906 FTEs) is equivalent to the direct and indirect employment supported by the construction of approximately 390 new homes in Manitoba.¹¹

¹¹ Canadian Home Builders Association, Economic Impacts of New Home Construction in Manitoba, 2018. Available here: <https://www.chba.ca/CHBADocs/CHBA/HousingCanada/Information-Statistics/Impacts/1%20Manitoba%20Economic%20Impacts%20of%20New%20Home%20Construction%202018.pdf>

- **Horticulture** - The total employment supported by the commercial fishing and fish processing industries in 2018 is roughly two thirds (68 percent) of the total employment supported by the horticulture industry in Manitoba.¹²
- **Culture/Recreation** - The estimated employment supported by the commercial fishing and fish processing industries in 2018 is roughly three times that of the total employment supported by the annual operators of the Manitoba Museum. The museum, which is the largest heritage centre in Manitoba and includes a science gallery and planetarium, sees over 400,000 visitors annually and an estimated 333 jobs in the province.¹³

ADDITIONAL ECONOMIC AND SOCIAL CONTRIBUTIONS

Some of the additional economic and social contributions that arise from the commercial fishing and fish processing industries' activities include:

- Support of local businesses.
- Support of community and infrastructure.

For examples of case studies that describe some of these additional economic and social contributions that arise from commercial fishing and fish processing in Manitoba, please refer to **Section 5** of the report.

¹² Manitoba Economic Impact Assessment of Current Horticulture Production, Government of Manitoba, November 2018. Available here: https://www.gov.mb.ca/mbs/reports/pubs/economic_impacts/manitoba_horticulture_impacts_2018.pdf

¹³ Manitoba Museum, Value and Benefit, Available here: <https://manitobamuseum.ca/main/about-us/value-benefit/>

2. INTRODUCTION

BACKGROUND AND STUDY PURPOSE

The Pioneer Commercial Fishers of Manitoba (“PCFM”) commissioned MNP LLP (“MNP”) to carry out an assessment of the economic and social contributions of the Manitoba commercial fishing and fish processing industries (“the Industries”).

The scope of the study included:

- Quantifying the economic impacts of the Industries, including output, GDP, employment, and government tax revenues.
- The development of case studies that describe some of the additional economic and social contributions of the Industries.

MNP’S APPROACH

In preparing this report, MNP carried out the following activities:

- Conducted research on the Industries through publicly available statistics, articles, and reports.
- Collected existing data on the Industries from the Province of Manitoba, Freshwater Fish Corporation, Fisheries and Oceans Canada, and Statistics Canada.
- Estimated the economic impacts of the Industries using an input-output methodology with multipliers published by Statistics Canada.
- Conducted interviews and prepared two case studies on some of the additional economic and social contributions of the Industries.

REPORT LIMITATIONS

This report is provided for information purposes and is intended for general guidance only. It should not be regarded as comprehensive or a substitute for personalized, professional advice.

We have relied upon the completeness, accuracy and fair presentation of all information and data obtained from public sources. The accuracy and reliability of the findings and opinions expressed in the presentation are conditional upon the completeness, accuracy and fair presentation of the information underlying them. As a result, we caution readers not to rely upon any findings or opinions for business or investment purposes and disclaim any liability to any party who relies upon them as such.

Additionally, the findings and opinions expressed in the presentation constitute judgments as of the date of the presentation and are subject to change without notice. MNP is under no obligation to advise of any change brought to its attention which would alter those findings or opinions.

3. OVERVIEW OF MANITOBA'S COMMERCIAL FISHING AND FISH PROCESSING INDUSTRIES

COMMERCIAL FISHING

Manitoba's commercial fishing industry is comprised of over 1,600 commercial fishers that harvest freshwater fish from lakes across Manitoba.¹⁴ In 2018, commercial fishers harvested approximately 12.2 million kilograms of freshwater fish with an estimated production value of \$31.6 million.¹⁵ Commercial fishers deliver their catch to approximately 40 fish sheds located throughout the province, where fish is collected, iced, packed and then transported to processing establishments for processing and sale.¹⁶

Manitoba's commercial fishers can harvest from approximately 300 lakes that are listed in the province's commercial harvest schedule. However, most harvesting occurs from Lake Winnipeg, Lake Manitoba and Lake Winnipegosis. In 2018, Lake Winnipeg accounted for approximately 55 percent of the total production (6.8 million kg), and 64 percent of the value of freshwater fish (\$20.2 million) in Manitoba.¹⁷ The top species harvested across lakes in the province are Yellow Pickerel, Lake Whitefish, and Sucker.¹⁸

The commercial fishing industry in Manitoba is regulated through a system of quotas. Most northern lakes in Manitoba are regulated by lake quotas where a specified number of fishers are licensed, and where fishing occurs until the entire quota is achieved for the season. Lake Winnipeg and Lake Winnipegosis have Individual Quota Entitlements ("IQEs"), where fishers may buy and sell quota to get access rights to the fishery. IQEs may be transferred by sale or lease, subject to approval by the Province.¹⁹ In addition to quotas, the fishery in Manitoba is managed by the Province through mesh size of gill nets, seasons and the number of fishers licensed.²⁰

Table 1 shows the estimated total volume and value of fish harvested in Lake Winnipeg and other lakes in Manitoba in 2018.²¹

Table 1: Estimated Weight and Value of Fish Harvested in Manitoba in 2018

	Weight (million kg)	Value (million)
Lake Winnipeg	6.8	\$20.2
Other Lakes	5.4	\$11.4
Total in Manitoba	12.2	\$31.6

¹⁴ Transformation on the Freshwater Fish Marketing Corporation: Ministerial Advisory Panel. Fisheries and Oceans Canada, Available here: <http://www.dfo-mpo.gc.ca/fisheries-peches/consultation/ffmc-cpea/transformation-ffmc-cpea-eng.html#toc-11>

¹⁵ Estimated by MNP from data provided by the Government of Manitoba, and from fish processors located in Manitoba.

¹⁶ Data provided by the Government of Manitoba.

¹⁷ Manitoba Sustainable Development, A Profile of Manitoba's Commercial Fishery, 2017. Available here:

https://www.gov.mb.ca/sd/://waterstewardship/fisheries/commercial/pdf/mb_com_fish_profile.pdf

¹⁸ 2017 Freshwater Fisheries – Catches and Landed Values by Species, by Province/Territory (Preliminary). DFO. Retrieved from: <http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/freshwater-eaoudouce/2017-eng.htm>

¹⁹ Manitoba Sustainable Development, A Profile of Manitoba's Commercial Fishery, 2017. Available here:

https://www.gov.mb.ca/sd/://waterstewardship/fisheries/commercial/pdf/mb_com_fish_profile.pdf

²⁰ Manitoba Sustainable Development, Commercial Fishing. Available here:

https://www.gov.mb.ca/sd/fish_and_wildlife/fish/commercial_fishing/index.html

²¹ Estimated by MNP from data provided by the Government of Manitoba, and from fish processors located in Manitoba.

FISH PROCESSING

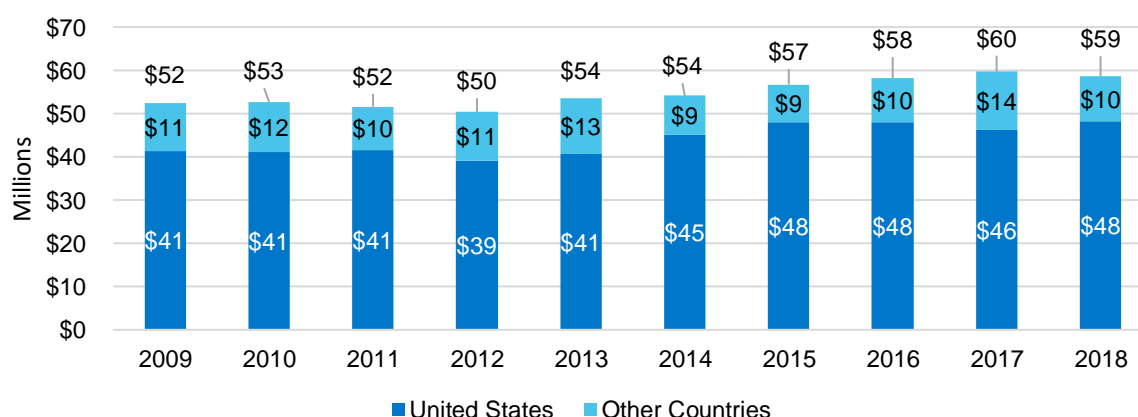
Manitoba's fish processing industry includes businesses that buy, process and market fish harvested in Manitoba for commercial sale. In 2018, most of the fish processed in Manitoba (approximately 84 percent) was harvested within the province. Fish processing activities turn the catch delivered by commercial fishers into a number of different types of processed fish products, including fresh or frozen whole, processed, filleted or minced fish.

The vast majority of fish harvested in Manitoba is sold to and processed by Freshwater Fish Corporation ("FFMC"). FFMC is a Crown corporation established in 1969 under the Freshwater Fish Marketing Act, to market and trade in fish, fish products and fish by-products within and outside of Canada. In December 2017, the Government of Manitoba withdrew from the Freshwater Fish Marketing Act, in favour of an open market for commercially harvested fish. Since then, a small number of fishers now market their fish through alternative distribution channels.^{22,23}

In 2018, the estimated total value of processed freshwater fish in Manitoba was \$65.5 million. Most processed freshwater fish products are destined for international markets, primarily the United States and Europe. In 2018, processors exported approximately \$59 million worth of freshwater fish processed products.²⁴

Figure 1 shows the total value of exports of processed fish products from Manitoba from 2009 to 2018.²⁵

Figure 1: Value of Processed Fish Exports from Manitoba from 2009 to 2018



²² Transformation on the Freshwater Fish Marketing Corporation: Ministerial Advisory Panel. Fisheries and Oceans Canada, Available here: <http://www.dfo-mpo.gc.ca/fisheries-peches/consultation/ffmc-cpea/transformation-ffmc-cpea-eng.html#toc-11>

²³ *ibid*

²⁴ Innovation, Science, and Economic Development Canada ("ISED"), Trade Data for HS codes 0302 - fresh or chilled fish (excl fish fillets), 0303 - Frozen Fish (Excl Fish Fillets), 0304 - Fish Fillets and Other Fish Meat - Fresh, Chilled or Frozen, and 0305 - Fish (Incl. Fish Meal) - Dried, Salted, Smoked or in Brine (Accessed October 22, 2019).

²⁵ Innovation, Science, and Economic Development Canada ("ISED"), Trade Data for HS codes 0302 - fresh or chilled fish (excl fish fillets), 0303 - Frozen Fish (Excl Fish Fillets), 0304 - Fish Fillets and Other Fish Meat - Fresh, Chilled or Frozen, and 0305 - Fish (Incl. Fish Meal) - Dried, Salted, Smoked or in Brine (Accessed October 22, 2019).

4. ECONOMIC IMPACTS OF MANITOBA'S COMMERCIAL FISHING AND FISH PROCESSING INDUSTRIES

ECONOMIC IMPACT ANALYSIS OVERVIEW

The goal of an economic impact study is to quantify the economic contributions that an industry, project or organization makes to a region. In general, economic impacts are viewed as consisting of well-established, quantitative measures of economic activity. The most commonly used of these measures are output, GDP, employment and government tax revenue:

- **Output** is the total gross value of goods and services produced by a given organization, industry or project, measured by the price paid to the producer. This is the broadest measure of economic activity.
 - *Example: A beverage manufacturer buys apples from an apple producer for \$100 and adds value to it by producing apple juice which is then sold for \$300. Economic output would total \$400 which is the value of all sales in the chain of activity. The value of the apples is therefore counted twice, once as an intermediate good for the beverage manufacturer, and again in the value of the juice.*
- **Gross Domestic Product ("GDP")**, or value added, refers to the additional value of a good or service over the cost of inputs used to produce it from the previous stage of production. Thus, GDP is equivalent to the unduplicated value of goods and services produced.
 - *Example: A beverage manufacturer buys apples from an apple producer for \$100 and adds value to it by producing juice which is then sold for \$300. GDP or value added would total only \$300 (as opposed to \$400 economic output). This is because value added subtracts the sale of the purchased apples (intermediate input) of \$100 from the total sales price of \$400, resulting in value added of \$300.*
- **Employment** is the number of additional jobs created. Employment is measured in terms of full-time equivalents ("FTEs").
- **Government Tax Revenues** are the total amount of tax revenues generated for different levels of government. Please note that because tax revenues can change due to modifications in tax policy, the tax revenue impacts in this report are estimates only and subject to change. They should be viewed as approximate in nature.

Economic impacts may be estimated at the direct, indirect and induced levels.

- **Direct** impacts are changes that occur in "front-end" businesses that would initially receive expenditures and operating revenue as a direct consequence of the operations and activities of a facility.
- **Indirect** impacts arise from changes in activity for suppliers of the "front-end" businesses.
- **Induced** impacts arise from shifts in spending on goods and services as a consequence of changes to the payroll of the directly and indirectly affected businesses.

MNP estimated the economic impacts of commercial fishing and fish processing in Manitoba using a Statistics Canada input-output model and related economic multipliers.²⁶ Input-output modelling is a widely used and accepted approach, making it recognizable by many different stakeholders and audiences. The structure of the approach also facilitates easy comparisons between reported results for different industries and projects.

For a detailed description of MNP's economic impact methodology, please refer to **Appendix B**.

ECONOMIC IMPACTS OF COMMERCIAL FISHING AND FISH PROCESSING IN MANITOBA IN 2018

Commercial fishers and fish processors create economic impacts through spending on employees and support staff, as well as spending on goods and services (e.g. equipment purchases, operating supplies, transportation expenses). Direct economic impacts are those that are created within the operations of commercial fishers and fish processors, while indirect and induced impacts are created with suppliers and other businesses.

ECONOMIC IMPACTS OF COMMERCIAL FISHING

Table 2 summarizes the estimated economic impacts generated by Manitoba's commercial fishing industry in 2018 based on the estimated production value of freshwater fish in Manitoba of \$31.6 million.^{27,28,29} In 2018, the commercial fishing industry is estimated to have generated the following approximate economic impacts within Manitoba:

- Total output of \$40.4 million, consisting of direct output of \$31.6 million, and indirect and induced output of \$8.8 million.
- Total GDP of \$22.2 million, consisting of direct GDP of \$17 million, and indirect and induced GDP of \$5.2 million.
- Total employment of 494 total full time equivalent (FTE) positions, consisting of direct employment of 424 FTEs, and indirect and induced employment of 70 FTEs.
- Total federal, provincial, and municipal tax revenue of \$5.9 million, consisting of direct tax revenue of \$4.2 million, and indirect and induced tax revenue of \$1.7 million.

Table 2: Economic Impacts of Commercial Fishing in Manitoba in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$31.6	\$17.0	424	\$1.4	\$1.9	\$0.9
Indirect and Induced	\$8.8	\$5.2	70	\$0.6	\$0.8	\$0.3
Total	\$40.4	\$22.2	494	\$2.0	\$2.7	\$1.2

²⁶ MNP reviewed its economic impact approach with Statistics Canada's staff to ensure it was consistent with Statistics Canada's methodology.

²⁷ Estimated using the value of fish harvested in Manitoba in 2018.

²⁸ Estimated by MNP from data provided by the Government of Manitoba, and from fish processors located in Manitoba.

²⁹ Please note that the economic impacts presented in this report reflect only those associated with the harvesting and processing of Manitoba sourced fish.

ECONOMIC IMPACTS OF FISH PROCESSING

Table 3 summarizes the estimated economic impacts generated by Manitoba's fish processing industry in 2018 based on the estimated processing value-add of freshwater fish in Manitoba of \$30.6 million.³⁰ In 2018, the fish processing industry is estimated to have generated the following approximate economic impacts within Manitoba:

- Total output of \$46.4 million, consisting of direct output of \$30.6 million, and indirect and induced output of \$15.8 million.
- Total GDP of \$36.6 million, consisting of direct GDP of \$16.7 million, and indirect and induced GDP of \$19.9 million.
- Total employment of 412 FTEs, consisting of direct employment of 239 FTEs, and indirect and induced employment of 173 FTEs.
- Total federal, provincial, and municipal tax revenue of \$6.7 million, consisting of direct tax revenue of \$4.4 million, and indirect and induced tax revenue of \$2.3 million.

Table 3: Economic Impacts of Fish Processing in Manitoba in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$30.6	\$16.7	239	\$2.1	\$2.0	\$0.3
Indirect and Induced	\$15.8	\$19.9	173	\$0.8	\$1.0	\$0.5
Total	\$46.4	\$36.6	412	\$2.9	\$3.0	\$0.8

³⁰ Estimated using total fish processing expenditures (excluding expenditures on raw fish) in Manitoba in 2018.

COMBINED ECONOMIC IMPACTS

Table 4 summarizes the combined estimated economic impacts generated by Manitoba's commercial fishing and fish processing industries. In 2018, the commercial fishing and fish processing industries are estimated to have generated the following approximate economic impacts within Manitoba:

- Total output of \$86.8 million, consisting of direct output of \$62.2 million, and indirect and induced output of \$24.6 million.
- Total GDP of \$58.8 million, consisting of direct GDP of \$33.7 million, and indirect and induced GDP of \$25.1 million.
- Total employment of 906 FTEs, consisting of direct employment of 666 FTEs, and indirect and induced employment of 243 FTEs.
- Total federal, provincial, and municipal tax revenue of \$12.6 million, consisting of direct tax revenue of \$8.6 million, and indirect and induced tax revenue of \$4 million.

Table 4: Economic Impacts of Commercial Fishing and Fish Processing in Manitoba in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$62.2	\$33.7	663	\$3.5	\$3.9	\$1.2
Indirect and Induced	\$24.6	\$25.1	243	\$1.4	\$1.8	\$0.8
Total	\$86.8	\$58.8	906	\$4.9	\$5.7	\$2.0

ECONOMIC IMPACTS OF COMMERCIAL FISHING AND FISH PROCESSING FROM LAKE WINNIPEG IN 2018

Lake Winnipeg is the largest commercial fishery in Manitoba. It is estimated that in 2018 Lake Winnipeg accounted for approximately 55 percent of the total production (6.8 million kg), and 64 percent of the total production value of freshwater fish (\$20.2 million) in Manitoba.³¹

ECONOMIC IMPACTS OF COMMERCIAL FISHING

Table 5 summarizes the estimated economic impacts generated from commercial fishing from Lake Winnipeg in 2018 based on the estimated production value of freshwater fish in Lake Winnipeg of \$20.2 million in 2018.³² In 2018, commercial fishing from Lake Winnipeg is estimated to have generated the following approximate economic impacts in Manitoba:

- Total output of \$25.8 million, consisting of direct output of \$20.2 million, and indirect and induced output of \$5.6 million.
- Total GDP of \$14.2 million, consisting of direct GDP of \$10.9 million, and indirect and induced GDP of \$3.3 million.
- Total employment of 317 FTEs, consisting of direct employment of 272 FTEs, and indirect and induced employment of 45 FTEs.
- Total federal, provincial, and municipal tax revenue of \$3.8 million, consisting of direct tax revenue of \$2.7 million, and indirect and induced tax revenue of \$1.1 million.

Table 5: Economic Impacts of Commercial Fishing from Lake Winnipeg in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$20.2	\$10.9	272	\$0.9	\$1.2	\$0.6
Indirect and Induced	\$5.6	\$3.3	45	\$0.4	\$0.5	\$0.2
Total	\$25.8	\$14.2	317	\$1.3	\$1.7	\$0.8

ECONOMIC IMPACTS OF FISH PROCESSING

Table 6 summarizes the estimated economic impacts generated from fish processing from Lake Winnipeg in 2018 based on the estimated processing value-add of freshwater fish in Lake Winnipeg of \$19.6 million in 2018.³³ In 2018, fish processing from Lake Winnipeg is estimated to have generated the following approximate economic impacts in Manitoba:

- Total output of \$29.7 million, consisting of direct output of \$19.6 million, and indirect and induced output of \$10.1 million.
- Total GDP of \$23.4 million, consisting of direct GDP of \$10.7 million, and indirect and induced GDP of \$12.7 million.

³¹ Manitoba Sustainable Development, A Profile of Manitoba's Commercial Fishery, 2017. Available here: https://www.gov.mb.ca/sd/wwaterstewardship/fisheries/commercial/pdf/mb_com_fish_profile.pdf

³² Estimated as 64 percent of Manitoba's total commercial fishing revenue of \$31.6 million (64% x \$31.6m = \$20.2m)

³³ Estimated using total fish processing expenditures (excluding expenditures on raw fish) in Lake Winnipeg in 2018.

- Total employment of 264 FTEs, consisting of direct employment of 153 FTEs, and indirect and induced employment of 111 FTEs.
- Total federal, provincial, and municipal tax revenue of \$4.3 million, consisting of direct tax revenue of \$2.9 million, and indirect and induced tax revenue of \$1.4 million.

Table 6: Economic Impacts of Fish Processing from Lake Winnipeg in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$19.6	\$10.7	153	\$1.4	\$1.3	\$0.2
Indirect and Induced	\$10.1	\$12.7	111	\$0.5	\$0.6	\$0.3
Total	\$29.7	\$23.4	264	\$1.9	\$1.9	\$0.5

COMBINED ECONOMIC IMPACTS

Table 7 summarizes the combined estimated economic impacts generated from commercial fishing and fish processing from Lake Winnipeg in 2018. In 2018, commercial fishing and fish processing from Lake Winnipeg is estimated to have generated the following approximate economic impacts in Manitoba:

- Total output of \$55.5 million, consisting of direct output of \$39.8 million, and indirect and induced output of \$15.7 million.
- Total GDP of \$37.6 million, consisting of direct GDP of \$21.6 million, and indirect and induced GDP of \$16 million.
- Total employment of 581 FTEs, consisting of direct employment of 425 FTEs, and indirect and induced employment of 156 FTEs.
- Total federal, provincial, and municipal tax revenue of \$8.1 million, consisting of direct tax revenue of \$5.6 million, and indirect and induced tax revenue of \$2.5 million.

Table 7: Economic Impacts of Commercial Fishing and Fish Processing from Lake Winnipeg in 2018

	Output (million)	GDP (million)	Employment (FTEs)	Federal Tax (million)	Provincial Tax (million)	Municipal Tax (million)
Direct	\$39.8	\$21.6	425	\$2.3	\$2.5	\$0.8
Indirect and Induced	\$15.7	\$16.0	156	\$0.9	\$1.1	\$0.5
Total	\$55.5	\$37.6	581	\$3.2	\$3.6	\$1.3

INDUSTRY COMPARISON

To provide perspective on the size of the economic impacts of the Manitoba commercial fishing and fish processing industries, it is useful to compare the impacts with those created by other industries. Three examples of other industries include home construction, horticulture, and culture/recreation:

- **Home Construction** - The total employment supported by the commercial fishing and fish processing industries in 2018 (906 FTEs) is equivalent to the direct and indirect employment supported by the construction of approximately 390 new homes in Manitoba.³⁴
- **Horticulture** - The total employment supported by the commercial fishing and fish processing industries in 2018 is roughly two thirds (68 percent) of the total employment supported by the horticulture industry in Manitoba.³⁵
- **Culture/Recreation** - The estimated employment supported by the commercial fishing and fish processing industries in 2018 is roughly three times that of the total employment supported by the annual operators of the Manitoba Museum. The museum, which is the largest heritage centre in Manitoba and includes a science gallery and planetarium, sees over 400,000 visitors annually and an estimated 333 jobs in the province.³⁶

³⁴ Canadian Home Builders Association, Economic Impacts of New Home Construction in Manitoba, 2018. Available here: <https://www.chba.ca/CHBADocs/CHBA/HousingCanada/Information-Statistics/Impacts/1%20Manitoba%20Economic%20Impacts%20of%20New%20Home%20Construction%202018.pdf>

³⁵ Manitoba Economic Impact Assessment of Current Horticulture Production, Government of Manitoba, November 2018. Available here: https://www.gov.mb.ca/mbs/reports/pubs/economic_impacts/manitoba_horticulture_impacts_2018.pdf

³⁶ Manitoba Museum, Value and Benefit, Available here: <https://manitobamuseum.ca/main/about-us/value-benefit/>

5. ADDITIONAL ECONOMIC AND SOCIAL CONTRIBUTIONS

In addition to creating economic impacts, the Industries create and enable some additional economic and social contributions in Manitoba. Examples of these contributions include:

- Support of local businesses.
- Support of community and infrastructure.

This section contains two case studies that describe some of the additional economic and social contributions that arise from the Industries. Information used to prepare the case studies was obtained through secondary research and interviews with key informants. Key informants included business, government, and other organization representatives. For more information on the interviews conducted please see **Appendix A**.



CASE STUDY

Support of Local Businesses

The commercial fishing and fish processing industries in Manitoba support local companies in the communities in which they operate. In many communities on the shores of Lake Winnipeg, which have historically depended to a great extent on commercial fishing, the industry remains an important part of the community's identity and heritage. Commercial fishers and their suppliers purchase supplies, boats, vehicles, groceries and other items in their local communities, supporting local businesses.³⁷

Suppliers to the commercial fishing industry include boat dealerships, gasoline stations, fishing net and equipment manufacturers, freight service suppliers, and many others. One boat dealership owner interviewed by MNP estimated that 75 percent of their business comes directly from commercial fishers.

The community in Riverton, while not directly on Lake Winnipeg, benefits from the jobs created by the commercial fishing industry. Riverton's new fish processing plant, which required a substantial investment estimated at \$13 million³⁸, supports many jobs in the local community. The plant was built in 2017, after the Manitoba government introduced the flexible fish marketing system, opening up the market for fish in Manitoba.³⁹ According to a local government representative interviewed by MNP, the fish processing plant provides many training opportunities to its employees. As the plant continues to grow, it will create opportunities for employees to take on greater responsibilities as well.



According to a representative for the Canadian Government's Small Craft Harbours Program interviewed by MNP, small craft harbours generally anchor a number of businesses in the community, serving mostly commercial fishers as well as other harbour users. These businesses include marine fuel retailers, bait and tackle retailers, boat repairs and maintenance service providers, grocers, and unloading and transportation service providers.

³⁷ Business owners interviewed by MNP noted that commercial fishing often represents up to half, and sometimes more, of the economic activity in these communities.

³⁸ Contacts / Construction / Development. "Fish Processing Plant, 390 Reggie Leach Dr., Riverton". Available here: <https://www.ccdcanada.com/>

³⁹ Manitoba government. "Province Announces Independence for Manitoba Commercial Fishers Coming Soon". 2017. Available here: <https://news.gov.mb.ca/news/index.html?item=42573&posted=2017-11-17>

CASE STUDY

Support of Community and Infrastructure

As part of this study, MNP interviewed representatives from businesses, government, and other organizations.⁴⁰ According to interview respondents, the commercial fishing and fish processing industries in Manitoba contribute to the development of the communities in which commercial fishers and fish processors operate.

Many of the communities located on the shores of Lake Winnipeg, including Gimli, Grand Rapids, Norway House or Dawson River depend to a large extent on the income derived from commercial fishing. The town of Gimli, in particular, has historically depended to a great extent on commercial fishing.⁴¹ The harbour in Gimli, now the largest such facility between Thunder Bay, Ontario and the coast of British



Columbia, was developed over the years to serve the needs, in particular, of the commercial fishing industry. While the Gimli Harbour remains a working harbour, supporting over 50 commercial fishers, it has become a focal point for tourism in Gimli as well as a popular base for recreational boaters.

According to a local government representative interviewed by MNP, many tourists are attracted by the docks at Gimli Harbour and the operations of commercial fishing boats. The harbour hosts many events, including sailing events and the Icelandic Festival. The Icelandic Festival celebrates Gimli's historical roots, and attracted in 2018 tens of thousands of visitors, including Iceland's prime minister.⁴² Gimli Harbour's presence on the lake also attracts and provides services to many recreational boaters from out of town, with over 200 pleasure boats docking at the harbour.⁴³

According to a representative for the Canadian Government's Small Craft Harbours Program interviewed by MNP, the Manitoba commercial fishing industry is the main motivation behind the development and continued operations of small craft harbours in the province.⁴⁴ These small craft harbours provide the infrastructure required for commercial fishers to dock, resupply, unload, and repair and maintain their fishing boats. Approximately two-thirds of the 1,008 small craft harbours in Canada are considered "core" harbours, meaning that they are managed by an appointed Harbour Authority and are considered vital to the commercial fishing industry.⁴⁵

Harbour Authorities are not-for-profit organizations, generally staffed by volunteer commercial fishers, and tasked with operating and maintaining small craft harbours leased from the Canadian Government. Harbour Authorities provide services to users of small craft harbours and arrange for the repair and maintenance of infrastructure in small craft harbours. Harbour users pay fees to the Harbour Authority, whose revenues are reinvested in operating, maintaining and repairing the harbour. Harbour users comprise mostly commercial

⁴⁰ A total of five interviews were conducted.

⁴¹ Nicholson, Karen. "A History of Manitoba's Commercial Fishery". 2007. Available here: https://www.gov.mb.ca/chc/hrb/internal_reports/pdfs/Fishery_MB_Commercial.pdf

⁴² Zhang, Adriana. "Íslendingadagurinn in Gimli boasts viking-led contests, Iceland's Prime Minister and men's paralympic soccer friendly". 2018. Available here: <https://globalnews.ca/news/4364802/islandingadagurinn-in-gimli-boasts-viking-led-contests-icelands-prime-minister-and-mens-paralympic-soccer-friendly/>

⁴³ Gimli Harbour. Available here: <https://www.gimliharbour.ca/>

⁴⁴ Small craft harbours mostly serve the needs of commercial fishers, and are generally owned by the Government of Canada and operated by commercial fishers.

⁴⁵ Government of Canada, Department of Fisheries and Oceans. "Small Craft Harbours Program". Available here: <https://www.dfo-mpo.gc.ca/sch-ppb/aboutsch-aproposppb/index-eng.html>

fishers, as well as recreational boaters, coast guard and law enforcement agencies, and scientific research vessels.

According a local government representative interviewed by MNP, commercial fishing has for many years been the main economic activity for the Fisher River First Nation, based on Lake Winnipeg. The commercial fishing industry employs many of its members. The Fisher River First Nation has, in recent years, become a champion for green energy and the environment, developing geothermal and solar projects, and advocating for conservation initiatives intended to protect traditional lands and waters.⁴⁶

⁴⁶ Canadian Parks and Wilderness Society – Manitoba Chapter. “CPAWS Partner Chief David Crate Inducted in Order of Canada”. 2019. Available here: <http://cpawsemb.org/news/cpaws-partner-chief-david-crate-inducted-in-order-of-canada>

6. APPENDICES

APPENDIX A – DATA SOURCES

This appendix lists the key data sources that MNP consulted throughout our analyses. Supplementary references are included in the footnotes throughout the report.

Secondary Research

Secondary Research Sources

- Manitoba Sustainable Development, <https://www.gov.mb.ca/sd/>
- Freshwater Fish Corporation, <http://www.freshwaterfish.com/>
- Statistics Canada, <http://www.statcan.gc.ca/>
- Fisheries and Oceans, <http://www.dfo-mpo.gc.ca/index-eng.htm>
- Innovation, Science and Economic Development Canada, <http://www.ic.gc.ca>

Primary Research

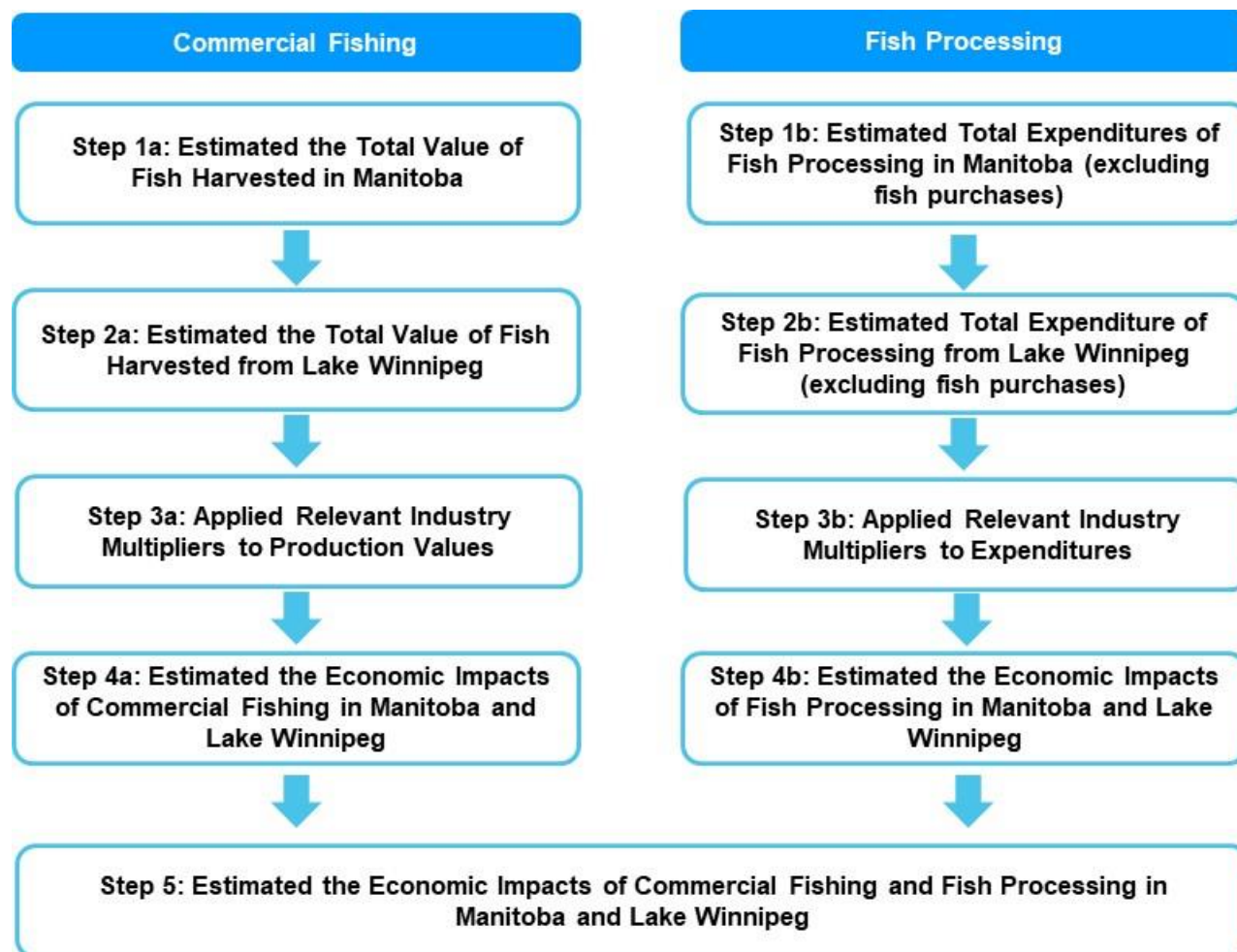
MNP conducted five telephone interviews with government and industry representatives. The table below summarizes the interviewee profile.

Primary Research Sources

- Lynn Greenberg, Mayor of Gimli
- Kevin Sigurdson, President of Lakefish Twine
- Bryan Johnson, Reeve of Bilfrost-Riverton
- Bruce Marteinson, Westshore Marine
- Joanne Delaronce, Representative for Small Craft Harbours Program

APPENDIX B – ECONOMIC IMPACT METHODOLOGY AND ASSUMPTIONS

A step-by-step overview of MNP's economic impact approach is described below.



ECONOMIC IMPACTS OF COMMERCIAL FISHING

Step 1a: Estimated the Total Value of Fish Harvested in Manitoba

MNP used data provided by the Government of Manitoba on the total fish harvested in Manitoba, and the price paid per kilogram by the FFMC for fish harvested in Manitoba to estimate the total production value of fish harvested in Manitoba in 2018. It was estimated that the total production value of fish harvested in Manitoba was \$31.6 million in 2018.

Step 2a: Estimated the Total Value of Fish Harvested from Lake Winnipeg

MNP used data provided by the Government of Manitoba on total volume of fish harvested in Lake Winnipeg, and the price paid per kilogram by the FFMC for fish harvested from Lake Winnipeg to estimate the total production value of fish harvested from Lake Winnipeg in 2018. It was estimated that the total production value of fish harvested in Lake Winnipeg was \$20.2 million in 2018.

Step 3a: Applied Relevant Industry Multipliers to Production Values

The economic impacts of commercial fishing in Manitoba and Lake Winnipeg were estimated using an economic impact model developed with Statistics Canada's 2015 multipliers. MNP mapped total production values to appropriate provincial industry multipliers published by Statistics Canada. The model produced estimates of direct, indirect and induced economic impacts, including output, GDP, employment, and government revenues.

Step 4a: Estimated the Economic Impacts of Commercial Fishing in Manitoba and Lake Winnipeg

Direct, indirect and induced economic impacts of commercial fishing in Manitoba and Lake Winnipeg were estimated for 2018.

ECONOMIC IMPACTS OF FISH PROCESSING

Step 1b: Estimated Total Expenditures of Fish Processing in Manitoba

MNP estimated the total operating expenses of processing of fish harvested in Manitoba using data provided by the FPMC. Purchases of fish were excluded to avoid double counting as the impacts of fish purchases were captured in the economic impacts of commercial fishing. It was estimated that the total expenditures of fish processing (excluding fish purchases) in Manitoba were \$30.6 million. Expenditures of fish processing (excluding fish purchases) were used as a proxy for processing value-add in Manitoba in 2018.

Step 2b: Estimated Total Expenditures of Fish Processing from Lake Winnipeg

MNP estimated the total operating expenses of processing of fish harvested from Lake Winnipeg using data provided by the FPMC. From FPMC data, it was estimated that 64 percent of the value of fish harvested in Manitoba was harvested in Lake Winnipeg. Hence, it was assumed that 64 percent of the operating expenses of harvesting fish in Manitoba were incurred in the processing of fish harvested from Lake Winnipeg. It was estimated that the total expenditures of fish processors (excluding fish purchases) related to the processing of fish harvested from lake Winnipeg were \$19.6 million. Expenditures of fish processing (excluding fish purchases) were used as a proxy for processing value-add from Lake Winnipeg in 2018.

Step 3b: Applied Relevant Industry Multipliers to Expenditures

The economic impacts of fish processing in Manitoba and Lake Winnipeg were estimated using an economic impact model developed with Statistics Canada's 2015 multipliers. MNP mapped total expenses to appropriate provincial industry multipliers published by Statistics Canada. The model produced estimates of direct, indirect and induced economic impacts, including output, GDP, employment, and government revenues.

Step 4b: Estimated the Economic Impacts of Fish Processing in Manitoba and Lake Winnipeg

Direct, indirect and induced economic impacts of fish processing in Manitoba and Lake Winnipeg were estimated for 2018.

COMBINED ECONOMIC IMPACTS

Step 5: Estimated the Economic Impacts of Commercial Fishing and Fish Processing in Manitoba and Lake Winnipeg

The economic impacts of commercial fishing and fish processing were added together to estimate the total economic impacts of commercial fishing and fish processing in Manitoba and Lake Winnipeg.

APPENDIX C – ABOUT MNP

MNP is the fastest growing major chartered accountancy and business advisory firm in Canada. Founded in 1958, MNP has grown to more than 70 offices and 3,000 team members across Canada. In British Columbia, MNP has more than 800 staff located in 19 offices throughout the province. The map below shows our office locations.

MNP provides a wide range of accounting, finance and business advisory services to clients. These include:

- Assurance
- Taxation
- Corporate Finance
- Mergers and Acquisitions
- Enterprise Risk Services
- Forensic Accounting
- Consulting
- Insolvency and Corporate Recovery
- Succession
- Valuations and Litigation Support



About MNP's Economics and Research Practice

Economic and industry studies are carried out by MNP's Economics and Research practice. Based in Vancouver, the Economics and Research practice consists of a team of professionals that has a successful track record of assisting clients with a wide variety of financial and economic impact studies. Our work has encompassed a wide range of programs, industries, company operations and policy initiatives, and has helped clients with decision-making, communication of economic and financial contributions, documentation of the value of initiatives and activities, and development of public policy.