REPORT OF THE REVIEW OF THE REGULATIONS AND POLICY FOR DIRECT FISH SALES IN NEWFOUNDLAND AND LABRADOR

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1. INTRODUCTION

This review will examine direct sales of fish by harvesters in terms of the current and potential extent of the activity, the public health aspects, the extent to which direct sales by harvesters might or should be expanded and the terms and conditions that might then apply, including such factors as species, product forms, quantities and purpose. The overall issue is how this activity should be regulated and monitored in the future to accommodate reasonable needs of harvesters and seafood consumers while protecting public health and the commercial interests of other parts of the fishing industry. The obvious options range from maintaining the current total prohibition to complete de-regulation of the activity or, more realistically and responsibly, establishing some structured framework that gives harvesters some flexibility, provides assurances of seafood safety and takes account of legitimate concerns of existing licensed processors and food premises, their employees and customers.

A numbers of factors have recently made this question somewhat more contentious than usual. The following reasons have been advanced, but these are not necessarily all completely valid or the full listing of the causes:

- Lower market prices for some species have created pressure for harvesters to find additional outlets for some of their catches.
- Buyers often have no interest in small landings in isolated locations and/or of certain species.
- Concerns are raised in several quarters that increased amounts of landings are going to unregulated and unreported direct sales.
- A related concern is raised about the unknown sanitary conditions in which some of these products are being prepared for market and the possible increased risk of food-bourne illness and decreased safety of seafood.
- There is a perceived lack of clarity regarding existing regulations and the enforcement of them.
• Concerns exist that direct sales are increasing and negatively impacting existing licensed fish processing and food premises operations.

The current state of affairs in this activity will be described in Section 2 in terms of the present regulatory framework for direct fish sales and other related local food products and the level of direct fish sales activity in recent years. The regulatory arrangements in some other Canadian and US jurisdictions will be examined in Section 3 and the common elements found in such instances will be described. Section 4 will review the possible public health issues that may exist with consumption of seafood and relates these to the issue of direct fish sales. Representative views of various participants in the Newfoundland and Labrador seafood industry will be outlined in Section 5. Overall conclusions will be stated in Section 6 before the available policy/regulatory options are described in Section 7. The last Section (8) will contain the final policy/regulatory recommendation.

All catch data referred to, or displayed, in this document were obtained either directly from the Statistics Division of the Policy and Economics Branch, Department of Fisheries and Oceans, (DFO) St. Johns NL, or the Regional and National websites of DFO.
2. THE CURRENT SITUATION
This section will cover the current status of local/direct sales of fish by harvesters in Newfoundland and Labrador (NL). (From here on, the term “direct sales” will be used to denote the selling of fish by harvesters directly to other than licensed fish buyers and processors, as it seems a little more accurate description than the term “local sales”.) A good deal of the Information circulating on what is actually happening is largely anecdotal and is not all supported by the available data. Views on the issue are significantly influenced by the current status or position of those involved in the NL seafood industry. While most views on the issue are rational and logical they are determined primarily by the place various participants occupy in the industry. This is not unexpected in an industry that is still beset by significant over-capacity, under-supply and/or unfavourable market conditions, especially in the case of groundfish and cod in particular.

Current Regulatory Arrangements
The current regulatory arrangements that apply to the sale and purchase of fish and fish products in NL are based on the provincial Fish Inspection and Food and Drug Acts. The first provides the basis for provincial management of the fish processing sector and the overall marketing of fish and fish products; the second regulates the standards and practices of various facilities in which food is prepared and/or sold to consumers.

Under the NL Fish Inspection Administrative Regulations, a fish processing or a fish buyer’s licence, which specifies permitted species, is required for any of the following:

- to engage in any aspect of handling, storing, grading, marketing, transporting, or operating a vehicle for transporting, fish,
- to buy fish for processing or marketing from a fish harvester or aquaculturist,
- to engage in any specific aspect of processing (fish processing licence only).
Exemptions to these licensing requirements for buying or selling are provided for:

- a duly licensed fish harvester or aquaculturist selling fish directly, within the province, to a licensed fish processor or fish buyer,
- a person marketing fish for other than human consumption,
- a person purchasing fish for personal consumption directly from a licensed fish processor (including in-province retail operators), lobsters only from a licensed fish buyer, a licensed “Food Premises” operator or a reseller (peddler), who has purchased the fish from a licensed fish processor to resell without additional processing,
- a reseller who has purchased the fish from a licensed fish processor to resell without additional processing,
- a licensed “Food Premises” operator purchasing fish for resale from a licensed fish processor or purchasing live lobsters directly from a licensed fish buyer.

Under the NL Fish Inspection Operations Regulations, a fish harvester is not required to have a provincial processing licence or a federal Certificate of Registration for an establishment used exclusively by him/her for washing, gutting, salting, sorting, handling, drying or icing his/her catch. By implication, these establishments can only be used to wash, gut, salt, sort, handle, dry or ice fish that is to be sold to a licensed fish buyer or processor or is for personal consumption.

The NL Food and Drug Act defines "food premises" as a place where food is prepared, manufactured, handled, cut, processed, packaged, displayed, stored, offered for sale, sold or served. Operators of food premises, which include fish resellers, are subject to the operating requirements of the Food Premises Regulations under the Food and Drug Act and can purchase fish or fish products only from licensed fish buyers or processors. These Regulations set out the various facilities and equipment standards as well as operating procedures that must be met by all such operations.
In summary, a fish harvester in NL can only sell his/her catch directly within the province and then only to a licensed fish buyer or processor. A harvester cannot legally sell fish (including live lobsters) directly to individuals. Individuals cannot legally buy fish (including live lobsters) directly from a fish harvester but must do so only from licensed fish processors (lobsters only from fish buyers); fish resellers, who are selling fish as acquired from a licensed processor; or licensed “Food Premises” operators, who, in turn, must acquire fish from licensed processors or live lobsters from licensed buyers.

Current Arrangements for Other Local Food Products
The NL Wildlife Act Regulations allow a licensed hunter to obtain a permit to sell his legally caught small game to the holder of a wild game service licence during the open season and for seven days thereafter. The game must be served only as food to guests of licensed food premises or tourist establishments and cannot be resold. However, the regulations prohibit traffic in ptarmigan. Similar licensing arrangements exist for the buying and selling of big game. There are also additional specific provisions for wholesale and retail selling and buying of caribou. These big game rules are enforced.

However, a variety of wild food products can be bought by consumers directly from sellers operating outside the normal licensed food premises network. These include vegetables “at the farm gate”, small game and various local berries “by the roadside” and in some cases prepared or processed foods such as game, berries and vegetables. Some of these are not considered to contain potentially hazardous food ingredients and a “buyer beware” approach is adopted by the relevant enforcement agencies in such cases. In other cases, these direct sales are considered such a longstanding tradition that strict enforcement would be virtually impossible or counterproductive. Also, in most of these cases, there is not the competitive supply and demand situation that permeates the seafood industry.

These direct sales activities are unlikely to have the same adverse resource or commercial consequences as occur in the fishing industry. The one exception is
the sale of big game, which is more tightly controlled. Another significant
difference is the degree to which the seafood industry is regulated and managed
by both the provincial and federal governments and the capacity problems that
arise from the common property nature of the resources being commercially
exploited. Direct sales of other local food products do not seem to create the
same calls for action by competing interests as in the fishery. All told, apart from
the “longstanding tradition” aspects and the licensing requirement for buying and
selling game these other activities do not lend much guidance to a resolution of
the direct sales issues in the fishery.

Current Direct Sales Activity
Available data from the federal Dockside Monitoring Program (DMP) indicate
total direct sales of fish by harvesters consist almost exclusively of cod. (The
discussion from here on will be focused primarily on the cod aspects of this issue.)
This activity is concentrated in and around the larger population centres
throughout the Province, but is particularly significant on the Avalon, Burin and
Bonavista Peninsulas. A category called “Personal Use” catches has developed in
the DMP to describe landings that are not being sold to a licensed fish buyer or
processor but are intended for use or disposition directly by the harvester. Such

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Declared</th>
<th>Cod</th>
<th>Other</th>
<th>Total Inshore Cod</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2,129,465.3</td>
<td>1,547,562.0</td>
<td>581,903.3</td>
<td>13,644,000</td>
</tr>
<tr>
<td>2006</td>
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<td>1,555,018.0</td>
<td>445,579.2</td>
<td>15,473,000</td>
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<tr>
<td>2007</td>
<td>2,492,834.9</td>
<td>1,638,218.8</td>
<td>854,616.1</td>
<td>16,054,000</td>
</tr>
<tr>
<td>2008</td>
<td>2,040,254.1</td>
<td>1,650,524.7</td>
<td>389,729.4</td>
<td>15,942,000</td>
</tr>
<tr>
<td>2009</td>
<td>2,132,615.4</td>
<td>1,770,834.6</td>
<td>361,780.8</td>
<td>12,284,000</td>
</tr>
<tr>
<td>2010</td>
<td>1,841,401.6</td>
<td>1,562,548.0</td>
<td>278,853.7</td>
<td>9,552,000(^1)</td>
</tr>
<tr>
<td>Average</td>
<td>2,106,194.8</td>
<td>1,620,784.3</td>
<td>485,410.4</td>
<td>13,824,833</td>
</tr>
</tbody>
</table>

declarations, in themselves, are not illegal under federal regulations as ownership
of fish when landed is a matter of provincial jurisdiction.

\(^1\) To November 19
In the last six years, an annual average of 2,106 mt of all species has been declared for Personal Use through DMP; 1621 mt of these landings were cod (Table 1). This species, therefore, accounts for 77 percent of all landings reported as Personal Use, some of which is obviously intended for direct sales. The level of such cod declarations since 2005 has been fairly steady; ranging from a low of 1,548 mt in 2005 to a peak of 1,771 mt in 2009. The amount tabulated to late October 2010 is 1,562 mt. A slightly rising trend is evidenced by these data (+14.4 percent over the last five years to 2009).

On average, over the past six years, 11.7 percent of total inshore cod landings have been declared for Personal Use. However, data for 2009 and incomplete data for 2010 suggest an increased proportion (14.4% and 16.0%) of these catches has gone for direct sales in these two years. There are slightly more annual variations in the other declared species. These have fluctuated from a high of 855 mt in 2007 to a low of 279 mt to late October 2010. The six-year (2005-10) average has been 485 mt.

| Table 2. Cod Declared for Personal Use, by NAFO Division 2005-2010 (Kgs) |
|------|------------|------------|------------|------------|------------|------------|--------------|
| 2J   | 21,487.2   | 30,123.6   | 36,010.8   | 42,888.8   | 47,652.8   |            | 29,693.9     |
| 3K   | 337,004.0  | 419,526.4  | 428,839.9  | 429,854.5  | 361,878.3  | 337,183.4  | 385,714.4    |
| 3L   | 516,528.6  | 554,297.1  | 633,550.7  | 666,569.2  | 730,048.1  | 660,082.3  | 626,846.0    |
| 3Ps  | 321,339.5  | 329,608.1  | 276,995.4  | 311,281.1  | 278,066.4  | 216,542.7  | 288,972.2    |
| 3Pn  | 9,747.1    | 10,679.5   | 7,151.6    | 10,574.4   | 23,381.7   | 9,971.1    | 11,917.5     |
| 4R   | 362,842.8  | 219,419.7  | 261,557.6  | 196,234.7  | 334,571.4  | 291,115.7  | 277,623.6    |
| All  | 1,547,462  | 1,555,018  | 1,638,218  | 1,650,524  | 1,770,834  | 1,562,548  | 1,620,767    |

The volumes of cod landings declared for Personal Use are shown by NAFO Division in Table 2 and the percentage distributions are in Table 3. The highest share of total cod declared for Personal Use is from landings made in 3L; this area
has accounted for an average of 38.7 per cent of the total declarations since 2005. The next highest share of the declarations is from landings made in 3K, which account for 23.8 percent of the total cod landings on average. Almost exactly the same average share of the total declarations occurs in 3Ps and 4R at just over 17 percent. The remainder are very small contributions to the total from 2J and 3Pn.

Since 2005, the share of total cod declared for Personal Use has increased in 3L, declined in 3Ps and 4R and fluctuated without trend in 3K. It is noteworthy that the Division (3Ps) with the largest regular commercial cod fisheries has had a declining trend in volumes declared for Personal Use and is third overall in the share of total cod landings so reported. On the other hand, the three Divisions with more minimal cod allocations have the three highest shares. Some of this may be due to close proximity to most of the major urban centres in the province: St. John’s and environs, CBS, Clarenville, New Wes Valley, Gander, Grand Falls-Windsor, Deer Lake/Corner Brook and Stephenville. In fact, detailed data by Statistical Section, examined for 2010 show some of the highest declared volumes of cod occurring in the St. John’s area, CBS, Central Newfoundland towns, Deer Lake/Corner Brook and the tip of the Northern Peninsula. However, a similar situation also occurred in those parts of 3Ps closest to significant population centres; that factor alone, therefore, does not fully explain this.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2J</td>
<td>-</td>
<td>1.4%</td>
<td>1.8%</td>
<td>2.2%</td>
<td>2.4%</td>
<td>3.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>3K</td>
<td>21.8%</td>
<td>27.0%</td>
<td>26.2%</td>
<td>26.0%</td>
<td>20.4%</td>
<td>21.6%</td>
<td>23.8%</td>
</tr>
<tr>
<td>3L</td>
<td>33.4%</td>
<td>35.6%</td>
<td>38.7%</td>
<td>40.4%</td>
<td>41.2%</td>
<td>42.2%</td>
<td>38.7%</td>
</tr>
<tr>
<td>3Ps</td>
<td>20.8%</td>
<td>21.2%</td>
<td>16.9%</td>
<td>18.9%</td>
<td>15.7%</td>
<td>13.9%</td>
<td>17.8%</td>
</tr>
<tr>
<td>3Pn</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.4%</td>
<td>0.6%</td>
<td>1.3%</td>
<td>0.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>4R</td>
<td>23.4%</td>
<td>14.1%</td>
<td>16.0%</td>
<td>11.9%</td>
<td>18.9%</td>
<td>18.6%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Totals</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
It is speculated that in some areas, direct cod sales are used as a “cash crop”, outside of the regular fishery income system. It is claimed that in areas with substantial early-season earnings from crab or other species, later cod catches are not needed to qualify for EI. It is argued, on a contrary note, that the situation is the opposite in areas where there is not a substantial source of other fishery earnings, which actually reduces the level of direct sales of cod. As well, many harvesters claim such outlets have become more critical in recent years because of depressed port market prices for many species. Whatever the real reasons, direct sales of cod require access to a substantial population base to provide the market demand that can absorb current level of product on a cash basis. Difficulties in providing real-time DMP coverage in many small landing ports are claimed to result in IQ over-runs because the paperless direct sales avenue is available to dispose of the catch.

There appears to be at least three distinct categories of harvesters who declare landings for Personal Use. The first is those who are actually using the amounts declared for their own use and possibly that of some close family members. These would declare a relatively small percentage of their total landings for Personal Use. The second grouping would be those who have established and

<table>
<thead>
<tr>
<th>Range</th>
<th>2J</th>
<th>3K</th>
<th>3L</th>
<th>3PN</th>
<th>3PS</th>
<th>4R</th>
<th>All</th>
<th>% of Total</th>
</tr>
</thead>
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<tr>
<td>&lt; 5%</td>
<td>1</td>
<td>51</td>
<td>68</td>
<td>31</td>
<td>225</td>
<td>119</td>
<td>495</td>
<td>21.4%</td>
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<tr>
<td>5 - 9.99%</td>
<td>70</td>
<td>63</td>
<td>4</td>
<td>37</td>
<td>60</td>
<td>234</td>
<td>10.1%</td>
<td></td>
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<tr>
<td>10 - 19.9%</td>
<td>96</td>
<td>85</td>
<td>3</td>
<td>34</td>
<td>54</td>
<td>272</td>
<td>11.8%</td>
<td></td>
</tr>
<tr>
<td>20 - 29.9%</td>
<td>43</td>
<td>61</td>
<td>1</td>
<td>20</td>
<td>38</td>
<td>163</td>
<td>7.0%</td>
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<tr>
<td>30 - 39.9%</td>
<td>28</td>
<td>33</td>
<td>9</td>
<td>26</td>
<td>96</td>
<td>4.2%</td>
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<tr>
<td>40 - 49.9%</td>
<td>23</td>
<td>28</td>
<td>1</td>
<td>11</td>
<td>16</td>
<td>79</td>
<td>3.4%</td>
<td></td>
</tr>
<tr>
<td>50 - 59.9%</td>
<td>14</td>
<td>23</td>
<td>5</td>
<td>4</td>
<td>46</td>
<td>2.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 - 69.9%</td>
<td>9</td>
<td>18</td>
<td>2</td>
<td>7</td>
<td>36</td>
<td>1.6%</td>
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<td></td>
</tr>
<tr>
<td>70 - 79.9%</td>
<td>2</td>
<td>10</td>
<td>21</td>
<td>3</td>
<td>8</td>
<td>44</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>80 – 89.9%</td>
<td>17</td>
<td>11</td>
<td>1</td>
<td>4</td>
<td>34</td>
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<td>4</td>
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<td>13</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>56</td>
<td>231</td>
<td>354</td>
<td>2</td>
<td>56</td>
<td>84</td>
<td>783</td>
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</tr>
<tr>
<td>All</td>
<td>59</td>
<td>596</td>
<td>777</td>
<td>43</td>
<td>405</td>
<td>433</td>
<td>2,313</td>
<td>100.0%</td>
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</tbody>
</table>
repeat “private customers” who regularly purchase fresh, filleted and salted cod for their own consumption. They would declare a higher percentage of their catch as Personal Use. The third group would be those who engage in direct sales on a quasi-commercial basis, making substantial sales to individuals and possibly food premises. These would declare all, or virtually all, of their landings as Personal Use. Their average annual cod landings tend to higher in most Divisions than those who declare a lower percentage as Personal Use. These three categories should be discernable in the data on the numbers of harvesters declaring various amounts of cod landings as Personal Use in the following three tables. Table 4 shows the numbers of harvesters by the percent of their cod landings reported as Personal Use by NAFO Division up to October 25, 2010. Table 5 shows the total amounts declared by the different percentage categories. Table 6 shows the average volumes by percentage class. (NB: all quantities in these three Tables are in pounds)

To October 25, 2010, a total of 2,313 harvesters (Table 4) reported Personal Use catches of 1,510 mt (Table 5); of which 783 or about 34 percent declared all of their cod landings as for Personal Use. The total amount declared by that group of harvesters amounted to 804 mt or 53.2 percent of the total volume declared; these volumes represent an average landing per harvester of about 2 mt. At the
other extreme, 50.3 percent of declaring harvesters designated 30 percent or less of their landings as personal use. These 1,164 harvesters accounted for a total volume of 327 mt at an average of 0.3 mt. In between are 366 harvesters who declared more than 30 percent but less than 100 percent of their cod landings. This group declared a total of 380 mt for an average of about one metric tonne. The harvesters who sell to select private customers and/or to food premises would appear to be in the groups that declare from 30 to 100 percent of their cod landings as Personal Use.

Table 6 shows the average volume of cod for each of the percentage groups declaring Personal Use up to October 25, 2010. The data for 2J indicate that only those who declared 100 percent of their cod landings had an average volume over

<table>
<thead>
<tr>
<th>Range</th>
<th>2J</th>
<th>3K</th>
<th>3L</th>
<th>3PN</th>
<th>3PS</th>
<th>4R</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5%</td>
<td>120</td>
<td>134</td>
<td>173</td>
<td>246</td>
<td>304</td>
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<td>259</td>
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<tr>
<td>5 - 9.99%</td>
<td>279</td>
<td>392</td>
<td>1,240</td>
<td>1,076</td>
<td>884</td>
<td>607</td>
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<tr>
<td>10 - 19.9%</td>
<td>538</td>
<td>634</td>
<td>2,299</td>
<td>1,500</td>
<td>1,227</td>
<td>844</td>
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<tr>
<td>20 - 29.9%</td>
<td>794</td>
<td>950</td>
<td>2,682</td>
<td>1,747</td>
<td>2,377</td>
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<tr>
<td>30 - 39.9%</td>
<td>1,142</td>
<td>1,237</td>
<td>2,385</td>
<td>2,914</td>
<td>1,771</td>
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<tr>
<td>40 - 49.9%</td>
<td>1,669</td>
<td>1,599</td>
<td>277</td>
<td>4,770</td>
<td>1,947</td>
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<tr>
<td>50 - 59.9%</td>
<td>1,770</td>
<td>2,029</td>
<td>7,638</td>
<td>896</td>
<td>2,461</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 - 69.9%</td>
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<td>1,233</td>
<td>2,123</td>
<td>2,221</td>
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<tr>
<td>70 - 79.9%</td>
<td>979</td>
<td>2,227</td>
<td>2,794</td>
<td>2,931</td>
<td>2,603</td>
<td>2,557</td>
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</tr>
<tr>
<td>80 - 89.9%</td>
<td>2,695</td>
<td>2,724</td>
<td>252</td>
<td>4,726</td>
<td>1,558</td>
<td>2,558</td>
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<tr>
<td>90 - 99.9%</td>
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<td>3,652</td>
<td>7,048</td>
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<tr>
<td>100%</td>
<td>1,841</td>
<td>1,933</td>
<td>2,828</td>
<td>816</td>
<td>1,368</td>
<td>1,695</td>
<td>2,263</td>
</tr>
<tr>
<td>All</td>
<td>1,783</td>
<td>1,256</td>
<td>1,879</td>
<td>566</td>
<td>1,020</td>
<td>1,333</td>
<td>1,439</td>
</tr>
</tbody>
</table>

1,000 pounds. In 3K and 3L this level did not occur until 30 percent and more of cod landings were so declared. In 3Pn and 3Ps harvesters, who declared 10 percent or more, averaged in excess of 1,000 pound each. In 4R this level was surpassed by those who declared more than 10 percent (except for 4 harvesters
who declared 50.0-59.9 percent). Assuming that 1,000 pounds is the upper limit cut-off between legitimate annual Personal Use and various levels of commercial sales; of the 2313 harvesters declaring some Personal Use landings, at least 1,180 appear to have engaged in some level of direct sales in 2010. Of this number, most (500) declared landings in 3L, while 336 landed in 3K, 250 in 4R and 180 in 3Ps. The latter Division has some of the highest average landings declared for Personal Use; four groups exceeded 4,000 pounds on average.

Overall, there is a significant amount of landings, mostly cod, being declared as Personal Use and presumably being sold to individuals and to food premises. While all these declared amounts are recorded some of them may be inaccurate when the landing was not made in the presence of a DMP monitor. There is also wide speculation in some industry circles that other amounts are entering the direct sales network without being reported to DMP. Direct sales are essentially paperless transactions, because the activity itself is prohibited and the revenue received must be self-reported. This means that, in addition to the provincial regulations being breached, federal catch data are not accurately recorded and there is an underground direct sales economy with the attendant lack of income reporting. The conditions under which the products are prepared for these sales are essentially unknown, and certainly unregulated, creating a potential public health concern. However, such an occurrence has not been documented.
3. THE SITUATION IN OTHER JURISDICTIONS
The overall regulatory arrangements for management of direct sales of fish by harvesters in other jurisdictions in Atlantic Canada are a little different than in this province. Nova Scotia, New Brunswick and Prince Edward Island all permit some degree of direct sales of fish by harvesters. The situation in each province is described below.

NOVA SCOTIA
The Nova Scotia (NS) Department of Fisheries and Aquaculture regulates the buying and selling of fish through its Fish Buyers’ Licensing and Enforcement Regulations under its Fisheries and Coastal Resources Act. These Regulations have a general prohibition against processing, buying, selling, packaging, possessing or marketing fish or fish products without a licence unless covered by an exemption to the regulations. Processing of fish is further regulated by the Fish Inspection Regulations made under the Fisheries and Coastal Resources Act. These Regulations require a licence to operate and maintain an establishment or premises to process fish for sale, unless exempted from that provision.

The following exemptions from the requirement for a **buyer’s licence** are provided for buying fish or fish products when they are purchased:

- From a licensed seller,
- In amounts less than 25 kg per day for personal consumption and not for re-sale,
- For re-sale by a non-profit organization,
- For re-sale in an privately owned retail outlet, except for lobster,
- Lobster from the holder of a Roadside Live Lobster Permit,

Except for the Roadside Live Lobster Permit, other buyers of live lobster are required to have facilities with certain holding and handling capabilities.
The following exemptions from the requirement for a **seller’s licence** are provided for selling fish or fish products when the sale is:

- To a licensed buyer,
- In amounts less than 25 kg per day for personal consumption and not for re-sale,
- For re-sale by a non-profit organization,
- For re-sale in a privately owned retail outlet, except for lobster,
- Lobster from the holder of a Roadside Live Lobster Permit,

The Fish Buyers Licensing and Enforcement Regulations also contain prohibitions against selling or buying fish or fish products that have been illegally caught, cultured, raised, harvested or processed; caught by a person who does not hold a valid commercial fishing licence issued by Fisheries and Oceans Canada; or caught under an aboriginal communal fishing licence issued for food, social and ceremonial purposes or processed by an unlicensed operator.

The NS Fish Inspection Regulations permit a fisherman who, by himself or his crew, processes his own catch into whole or dressed unfrozen fish, salted or pickled fish to operate or maintain an establishment for processing fish for sale. Such establishments may not be used for processing by anyone if the Minister informs the fishermen in writing that serious contamination exists.

These overall provisions specify the conditions under which an individual, non-profit organization or retail operator may acquire fish or fish products without a buying licence. Conversely they also, specify the circumstances under which a fish harvester may sell fish or fish products without a seller’s licence. Essentially, within the province of Nova Scotia, a DFO licensed harvester can sell directly whole or dressed, unfrozen, salted or pickled fish and lobster (with a Roadside Permit) for personal consumption, non-profit uses or private commercial retail sale.

**New Brunswick**
The New Brunswick (NB) Department of Fisheries administers the provincial Seafood Processing Act under which licences are required by primary processing plants, secondary processing plants, live lobster holding facilities, fish purchasers and designated purchasing agents as well as out-of-province buyers. The following exemptions from these licence requirements are granted by the Regulations made under the NB Seafood Processing Act:

- a person who only produces fish meal for non-human consumption;
- a holder of a commercial fishing licence or communal licence under the Fisheries Act (Canada) who holds live lobster caught under the authority of that licence until it is sold;
- an owner or lessee of a cold storage facility that does not carry out primary processing or secondary processing;
- a person who exclusively produces bait;
- a person who exclusively carries out depuration activities;
- a broker of processed product who does not carry out primary or secondary processing;
- an owner or lessee of a retail business who carries out primary or secondary processing at his or her retail business and sells the fish at the retail business or by home delivery to the final consumer;
- an owner or lessee of a restaurant who carries out primary or secondary processing at his or her restaurant and sells the fish at the restaurant or by home delivery to the final consumer; and
- a person who purchases less than 50 kg of fish per day for personal consumption.

The NB Department of Fisheries does not otherwise regulate the selling of fish by harvesters. The NB Food Premises Regulations under the provincial Public Health Act requires that a licensee obtain all food used in a food premises from a source that is subject to food safety inspection by the Government of Canada or a provincial or territorial government. However, a food premise licensee may buy fresh fish, fruits and vegetables directly from a primary producer for use only in his/her food premises. When a harvester sells fresh fish directly from a wharf to a
final consumer or a licensed food operator no licence is required. However, when a harvester sells fresh fish away from the wharf a licence is required from the Department of Health which stipulates certain sanitary conditions and practices that must be observed. The regulations do not describe the form in which the fresh fish may be sold.

Subject to that Department of Health requirement, a fish harvester in New Brunswick may, therefore, sell his/her catch to licensed fish processors or buyers, live lobster holding facilities as well as in fresh state to designated food premises and to individuals purchasing less than 50 kg per day for personal consumption.

Prince Edward Island

The Prince Edward Island (PEI) Department of Fisheries, Aquaculture and Rural Development administers the provincial Fisheries Act and its Regulations which cover licensing requirements and apply to all fish harvesters, aquaculturists, buyers, processors and pound operators engaged in the fishery in the province. Valid processing licences are required for primary processing, secondary processing, lobster cookroom processing or groundfish room processing. Processing licences are not required by:

- a fisher-packer, who dresses, packs, salts or ices fresh fish, except molluscs and crustaceans, from that person’s own catch;
- eating establishments licensed under the Prince Edward Island Public Health Act, provided that all fish processed or prepared is for meals served at the eating establishments; or
- retail outlets that prepare fish, other than lobster, for sale to consumers through that retail outlet.

Valid Fish Buyers licences are required for all commercial purchasing of lobster, other crustaceans, groundfish, mollusc, pelagic, and other fish. These buying licenses specify the particular species covered in each case.

A licence to peddle fish is also required and may be obtained by persons who meet the vehicle requirements for fish peddlers in the provincial Fish Inspection Act Regulations. All fish sold by such a peddler must have been purchased from
an operator who holds a valid PEI processing license for a federally registered fish processing plant.

This last requirement does not apply if the peddler is:

- the head of a core enterprise,
- the spouse, son or daughter of the head of a core enterprise,
- the designated representative of the head of a core enterprise, as approved by the Minister, where the head of a core enterprise does not have a spouse, son or daughter.

The fish being peddled by these core enterprises can be only:

- fresh, whole, dressed, or iced ground fish,
- fresh, whole, dressed, or iced pelagic fish, or
- iced live crustaceans
- and have been caught by the core enterprise.

The core enterprise head does require a PEI peddling licence.

In summary, fish harvesters in Prince Edward Island must sell catches to a licensed processor or fish buyer. They may, if a Core enterprise, peddle their own catch in whole, dressed or live unfrozen form under the provincial Fisheries Act Regulations. They are permitted to sell directly to licensed eating establishments and retail outlets provided the latter have the necessary buying licence for each species being purchased.

Other Canadian Jurisdictions

A short review of the regulatory arrangements for direct sales of fish by harvesters in other Canadian jurisdictions shows considerable similarities to those found in the Maritime Provinces.

In Manitoba, licensed commercial fish harvesters may, personally, sell fresh or frozen freshwater fish caught under the authority of their own commercial license, directly to individual consumers. These fish can only be sold for the personal use of the individual consumer and cannot be for re-sale. Commercial
fish harvesters may only sell fish to restaurants and retail/wholesale outlets that have been licensed by Freshwater Fish Marketing Corporation (FFMC) as “Special Dealers” or under authority of their own “Special Dealers” License if they possess one.

In Alberta, raw or processed freshwater fish can be sold by licensed and inspected Food Establishments, holding a valid “Class B Fish Establishment Licence”, directly to consumers, restaurants, retail or wholesale food establishments within the province. Class B Fish Establishments who have purchased fish from only the FFMC can peddle fish directly to the consumer. Restaurants or fish retailers/wholesalers who have purchased fish from either the FFMC or authorized licensed Fish Establishments can also sell directly to consumers (restaurants would serve the fish).

Licensed commercial fishermen can sell fresh or frozen freshwater fish directly to the final consumer in Alberta. Such fish purchases can only be used for personal consumption and must be accompanied by a receipt documenting the sale.

In British Columbia, fish processing and/or fish buying licenses are required under the provincial Fisheries Act Regulations to process or buy any fish in the province. There is an exemption for a person buying directly from a harvester for personal use or a restaurant or retail store purchasing fish for use or resale at that location. The harvester who sells fish in this way must have a “fisher’s vending” licence. The licence is issued to an individual, not a facility, but the facility used is subject to inspection. The vendor must also abide by zoning bylaws for municipalities and any business licence requirements. In addition, the Health Authorities have specific inspection requirements applying to roadside sales.

Some United States Cases
The following are a few examples of the approaches used in some parts of the western United States to manage direct sales of fish by harvesters. In the US the State is primary regulator but other lower levels of government may also have
regulatory requirements. As outlined in the last part of this section, there are some similarities with the requirements in various Canadian jurisdictions.

**Oregon**

Commercial fish harvesters are required to deliver their catch to a wholesale fish dealer, a wholesale fish bait dealer, or they may sell it off their vessel using a limited fish seller’s permit. This permit authorizes licensed commercial harvesters to sell their catch of food fish directly from their boat, but only to the final consumer, defined as a person that will ultimately consume the fish. The license restricts the sale to fish the harvester catches on his own vessel. Product cannot be bought from another fisherman for resale and sales cannot be made to a market or other middleman.

The harvester may sell food fish from any port and dock location in the state, but again the location where the sale is to take place must be reported to the State Department of Fish and Wildlife (ODFW). The ODFW may limit the number of fish seller permits available for any species of food fish.

A harvester with a limited fish sellers permit may custom fillet the fish for a customer on his vessel without obtaining a processing license. All other processing of fish and shellfish must be conducted at a licensed facility that is in full compliance with the food processing regulations.

Although no license is required by ODFW for retail fish dealers, the Oregon Department of Agriculture's (ODA) Food Safety Division requires them to have a license. A retail fish dealer is a person who buys food fish or shellfish from a wholesale fish dealer only, does no processing, and sells only to the final consumer (this includes restaurants). Harvesters may not distribute shellfish for human consumption to restaurants or retail stores or directly to the final consumer. Harvesters must sell shellfish to buyers who are ODA certified shellfish shippers and ODFW licensed wholesale fish buyers. In order for a harvester to sell directly to the consumer, they must also be certified by ODA as a shellfish shipper and have an ODFW fish buyer’s license.
Alaska

A harvester can sell his own unprocessed catch at dockside from his vessel to the public (but it cannot be re-sold), to restaurants, grocery stores or fish markets by holding a valid Department of Environmental Conservation (DEC) processing waiver and can sell bait for commercial harvesting. The harvester must be a licensed commercial fisherman with a valid limited entry or interim use permit and have a valid (no cost) Catcher/Seller permit issued by Alaska Department of Fish and Game (ADF&G). Unprocessed means gilled or gutted seafood, headed or gutted groundfish or decapitated shrimp. Butchering, freezing or packaging is not allowed under a Catcher/Seller permit.

The DEC may grant a local retail market or food service establishment a written exemption from processing licensing requirements, which allows them to receive up to 500 pounds of raw fish from a fisherman weekly. Catcher/Sellers are allowed to sell to such establishments.

Northern California

In California sales of seafood by fishermen is intensively managed, requiring licences or permits from up to three state departments: Fish and Game (CDFG), Health Services (CDHS) and Foods and Agriculture (CDFA). In addition, there are also county ordinances, municipal by-laws and port authority rules that must be observed. The scene is so complex that the Seafood Network Information Center of the University of California published a “Vessel Retail Guide for Northern California Fishermen” outlining the many regulatory requirements that fishermen must meet when selling fish directly to consumers.

A short summary of the permits required and conditions to observe is illustrative.

- A commercial fisherman selling all, or a portion, of his own catch directly to the ultimate consumer from his vessel requires a fisherman’s retail license ($50) from CDFG. But, he cannot engage in
any other activities (i.e., wholesaling, processing, receiving or importing) unless also licensed for these activities.

- Reporting requirements exist for such sales to consumers.
- Fish must be sold by weight; selling fish by the piece is not allowed. The weight of the fish must be determined at the time of sale, using an approved and sealed scale, unless the fish is packed in a package or container and bearing a net weight label that is in conformance with the Fair Packaging and Labeling Act.
- Selling from the boat may fall under the Mobile Food Facilities section of the California Uniform Retail Food Facilities Law (CURFFL), Health and Safety Code which has minimum standards for equipment, sanitation, and operation.
- Each county Environmental Health Department enforces the California Uniform Retail Food Facilities Law, which regulates the retail sale of food for human consumption. A county has the option of issuing either no permit, or a single vessel permit, to commercial fishermen who want to sell their own catch directly to consumers.
- The California Conference of Directors of Environmental Health prepared "Guidelines for Retail Fish Sales from Commercial Fishing Vessels" which gives detailed advisory information of how individual counties should manage such fish sales by harvesters. The list includes the following recommended requirements:
  - “All fish shall be sold whole. No filleting, steaking or processing, other than gilling and gutting, is allowed.
  - Gutting and gilling of fish shall be done at sea prior to beginning sales and in accordance with all California Fish and Game regulations.
  - All fish sold shall be packed at the time of sale in a drip-proof, food grade bag (e.g., plastic) of sufficient strength to support the weight of the fish.
  - Fish shall be sold only by, or under the direct supervision of, the fisherman who harvested the fish.
All sales must occur from the vessel. No selling stations will be allowed to be set up on or in any dock, wharf, parking area or other structure.

No customers shall be allowed on vessels selling fish. All shore attachments, protrusions or equipment that could injure a customer or create a trip hazard shall be safely covered or removed.

The vessel or business name shall be prominently placed and clearly visible to consumers during sales activities so that the business or vessel is easily identifiable.

Fish must be maintained at a temperature of 41 degrees Fahrenheit (5 degrees Celsius) or below at all times, including during storage. Acceptable means of maintaining temperature include approved refrigeration equipment or embedding in ice.

Ice used for the chilling of fish must be made from potable water and be protected from sources of contamination.

Stored fish must be protected from all sources of contamination.

Scombrotoxic fish must receive special care in handling, i.e., proper icing, refrigeration, or immediate freezing upon landing (catching), to prevent bacterial growth, spoilage, and histamine production. Scombrotoxic fish include tuna, albacore, mahi mahi, and mackerel.

Discharge of fish scales, entrails and other debris into marina waters is prohibited.

Only approved, cleanable utensils may be used to clean fish. Utensils, processing areas, and storage facilities such as holds must be maintained in a clean and sanitary condition.

Vessel owners or operators shall conform to all regulations and requirements, including those of the California Department of Fish and Game, the local Harbor District or Port Commission, and the County Department of Weights and Measures. Vessel owners or operators must acquire all required permits and licenses.
The local Environmental Health Department may require that a permit be issued for retail sales of fish from commercial fishing vessels. Vessel owners or operators must check with the local Environmental Health Department concerning applicable permits and fees.”

Common Regulatory Elements

There are a number of common regulatory elements that emerge from these various approaches adopted for management of direct sales of fish by harvesters. The following requirements appear most pertinent and applicable to adequate and responsible management of this activity:

- Harvesters must possess the applicable fishing licence for the species being sold. A professional categorization of the licence holder is specified in at least one jurisdiction.
- Fish usually must be unprocessed, other than gutting and heading. Direct sales of filleted or otherwise processed, fish are usually prohibited.
- The fish being sold must be the harvester’s own catch. He cannot sell fish on behalf of, or acquire fish from other harvesters to sell.
- The fish sold usually must be for domestic consumption by the individual purchaser and cannot be for re-sale.
- In some cases the maximum amount sold is limited on a daily, weekly or one-time basis.
- In some jurisdictions, harvesters may sell fresh, unprocessed fish directly to various types of licensed food establishments.
- The fish often must be sold directly from the harvester’s vessel or at the wharf, not from a sales stand or vehicle. No licence/permit may be required is the first case, but is usually required if the fish is sold elsewhere away from the vessel.
- Specific licences or permits, from the fisheries and/or health protection authorities, with or without a fee, are often required.
- In some jurisdictions, the requirements of multiple regulatory agencies must be met, such as fisheries/agriculture, public health, revenue and weights and measures.
- Other related licences or permits from other levels of government (county, municipal) may be also required.
- In US jurisdictions, such sales to consumers may have to be recorded and reported by the harvesters for catch monitoring purposes.
- Some sanitary and related requirements may have to be met by the harvesters selling directly to consumers or food establishments.
- Direct sales by harvesters of certain shellfish are often prohibited or have additional or specific requirements that must be met by harvesters. Permissible shellfish is sometimes defined to exclude certain molluscs or crustaceans.
4. PUBLIC HEALTH ASPECTS
There are a number of public health issues that can arise from the harvesting, processing, sale and consumption of seafood. The specifics of each issue depend on the type or origin of the problem and the practices used for the harvesting, handling, processing, storage and preparation for consumption. The various causative factors of health issues arising from seafood consumption can be grouped into three main categories:

- Bacterial
- Bio-toxins
- Parasitic

The particular characteristics of each of these will be outlined below.

Bacterial
This category covers the following primary causes of seafood health issues and includes the following four bacteria:

- Listeria
- Escherichia coli
- Clostridium botulinum
- Salmonella

Each of these bacteria can contaminate seafood and cause specific health problems if the organism is still present when the seafood is consumed. The origins of each are different, as are the possible means of dealing with each contaminant.

**Listeria**  
*Listeria monocytogenes* is a bacterium that is widespread in nature, occurring in soil, vegetation, marine sediments and water. It has been identified as the cause of listeriosis in humans. Most healthy individuals are either unaffected by *L. monocytogenes* or experience only mild flu-like symptoms. Victims of severe listeriosis are usually immune-compromised. Those at highest risk include: cancer patients, individuals taking drugs that affect the body's
immune system, alcoholics, pregnant women, persons with low stomach acidity and individuals with AIDS. Severe listeriosis can cause meningitis, abortions, septicaemia and a number of other maladies, some of which may lead to death.

The Canadian Food Inspection Agency (CFIA) considers listeria as “more likely to cause death than the other bacteria that cause food poisoning. In fact, 20 to 30 percent of foodborne listeriosis infections in high-risk individuals may be fatal”. However, it also points out that listeriosis is rarely caused by consumption of seafood in Canada.

Listeria resists heat, salt, nitrite and acidity much better than many organisms. The bacteria can survive on cold surfaces and also multiply slowly at 4.4°C; it can be prevented from multiplying at -18°C. The greatest threat of listeriosis is from ready-to-eat products that do not require further cooking. Listeria in raw food that will be cooked before consumption is less of a concern because the bacteria are killed during cooking.

Listeria can occur in seafood processing facilities from a variety of sources but seldom from fish itself. The latter can become contaminated from the other sources. It can persist because of inadequate plant design and layout, equipment design, process control, personnel practices, cleaning and sanitizing procedures. Easily cleaned structures and equipment that have as few crevices and square corners as possible are advised as well as stringent cleaning and other sanitation procedures and practices.

In the final analysis, the pertinent facts of these bacteria in the context of regulating direct sales by harvesters include the following:

- Prepared seafood eaten raw or partly cooked is the most likely source of listeriosis. This includes smoked fish, particularly cold-smoked and sushi-type products.
- Regular cooking of raw fish will kill these bacteria.
- Freezing slows or stops the multiplication of these bacteria but does not kill it.
Likewise, salting or pickling alone may not eradicate Listeria; such processed fish would still need to be properly cooked.

Contamination can occur from processing facilities or equipment, processing personnel or, rarely, the fish itself.

Listeriosis is rarely caused by seafood consumption in Canada.

**C. botulinum**

Botulism is caused by the bacteria, *Clostridium botulinum* (*C. botulinum*), that produce a toxin as part of their normal life cycle. All people are at risk for this serious, and often fatal, illness that can result primarily from eating improperly prepared, canned or heat-processed bottled food. Symptoms of botulism range from nausea, vomiting, fatigue, dizziness, headache, double vision and dryness in the throat and nose, to respiratory failure, paralysis and, in some cases, death.

*C. botulinum* is found naturally in soil and water. The toxin produced by the bacteria is heat-resistant and can survive high temperatures. Because the bacteria can grow in a moist, oxygen-free environment; improper canning and bottling of seafood provides the perfect conditions for the bacteria to multiply and produce the toxin.

The bacteria that cause botulism are colourless, odourless, tasteless and invisible to the naked eye. Once the bacteria are established they are not necessarily destroyed by cooking, therefore, preventing the toxin from forming by properly canning or heat-processing is essential.

In this instance, the following are pertinent considerations for regulation of direct sales of seafood by harvesters:

- The occurrence of botulism in Canada is rare.
- This is a bacterium that produces a toxin in improperly canned or heat-processed seafood.
• Home-type heat processing and canning cannot necessarily be relied upon to ensure that botulism-causing toxins are not present in the products.

• Once established, further cooking does not necessarily eliminate the toxin produced by this bacterium.

**Salmonella**  
*Salmonella* are geographically widespread organisms, principally occurring in the intestines of some humans and animals and in environments polluted with human or animal excreta. *Salmonella* occurs commonly in domestic animals and birds. Raw meat and poultry are therefore often contaminated with this organism. Also the contamination of raw milk, eggs and egg products with *Salmonella* is a long standing and well known problem. Some shellfish appear to be the most likely species to become contaminated with *Salmonella* if harvested from salmonella-polluted waters, but that appears to be a rare occurrence in Canada.

Overall, seafood is a much less common vehicle for *Salmonella* than other foods. However, seafood can become contaminated with *Salmonella* during processing when handled by an infected person, or by cross-contamination from passing birds and animals or unsanitary food handling practices. Because most seafood is cooked prior to consumption it, therefore, poses minimal health risks to the consumer except for cross contamination from other foods in kitchens. Like many other harmful bacteria, *Salmonella* are destroyed when food is cooked to a safe internal temperature.

The following are the pertinent points regarding *salmonella* in the context of regulating direct seafood sales by harvesters:

• *Salmonella* infection from seafood is a rare occurrence unless raw or imperfectly cooked contaminated fish is consumed.

• Contamination is more likely to come from infected individuals or other contaminated foodstuffs than from the environment.
Personal hygiene and proper sanitary practices are important steps against contaminating seafood before cooking and consumption.

**Escherichia coli**

*Escherichia coli* (*E. coli*) are naturally found in the intestinal tracts of all warm-blooded animals, including humans. Most forms of the bacteria are not pathogenic and serve useful functions in the intestine. Pathogenic strains of *E. coli* can be transferred to seafood through sewage pollution of the coastal environment or by contamination after harvest. Both animals and people infected with the bacteria can be carriers. More generally, *E. coli* bacteria are most often spread from person to person.

Hazards from *E. coli* can be prevented by: heating seafood sufficiently to kill the bacteria, holding chilled seafoods below 4.4°C, preventing post-cooking cross-contamination, prohibiting people who are ill from working in food operations and following proper hygiene, safe food handling and preparation practices.

The following are the pertinent points regarding *E. coli* in the context of regulating direct seafood sales by harvesters:

- Contamination is most likely to come from infected individuals and/or from polluted water supplies.
- Approved water supplies should only be used to wash fish before sale.
- Stringent personal hygiene and sanitary practices in processing and handling are essential.

**Bio-Toxins**

Bi-valve shellfish are highly sensitive to the quality of their marine environment. They feed on microscopic plants that can sometimes produce marine bio-toxins, which can build up in their tissues. Eating shellfish with high levels of these bio-
toxins can lead to serious and potentially fatal illness. Paralytic Shellfish Poisoning (PSP), as well as Amnesic Shellfish Poisoning (ASP) and Diarrhetic Shellfish Poisoning (DSP) are the human illnesses associated with marine bio-toxins in Canada. Bacteria, viruses, metals and contaminants may also build up in the tissues of bivalve shellfish and cause food safety concerns for consumers.

PSP, which is the most commonly occurring illness from bio-toxins, may have serious and potentially fatal effects for some people. PSP is caused by eating shellfish when they contain high levels of marine bio-toxins. This includes bi-valve shellfish such as oysters, clams, scallops (the intestines and gonads), mussels and cockles and non bivalve shellfish such as whelks. It may also be caused by eating (usually frequently and in large quantities) the tomalley (the soft green substance inside the body cavity) of crustaceans such as crabs and lobsters. There is no known cure for PSP; cooking the shellfish does not destroy the bio-toxins. The only effective way of dealing with this issue is to avoid harvesting shellfish in locations and times when high levels of the bio-toxins exist. This is the objective of the federal Canadian Shellfish Sanitation Program (CSSP), a joint activity of the Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans. The CFIA website outlines the various responsibilities of the three agencies as follows:

“The Fish, Seafood and Production Division, Canadian Food Inspection Agency:
- regulates the import and export, processing, packaging, labeling, shipping, certification, storage, repacking of shellfish to protect against contamination and product quality degradation, to maintain source and lot identity and integrity;
- suspends operations or decertifies shellfish processors on the basis of unacceptable operating and sanitation conditions;
- regulates the depuration (i.e., controlled purification) of shellstock, verifies product quality and purification effectiveness, maintains production and product quality records;
• evaluates laboratories performing shellfish analyses in accordance with the requirements of the CSSP and maintains a bio-toxin surveillance program of shellfish growing areas in support of DFO and CFIA activities;

Environment Canada:
• classifies all actual and potential shellfish growing areas as to their suitability for shellfish harvesting on the basis of sanitary quality and public health safety.

Fisheries and Oceans Canada, Fisheries Management:
1. controls the harvesting of shellfish from areas which are classified as contaminated or otherwise closed;
2. patrols growing areas, apprehends and prosecutes persons violating restrictions;
3. regulates and supervises relaying, transplanting and replanting;
4. restricts harvesting of shellfish from actual and potentially affected growing areas in a public health emergency;
5. regulates licenses, harvesting locations and times and minimum harvest sizes for stock management purposes.”

In the case of tomalley (which serves as the liver and pancreas), individuals are advised by Health Canada that:

• “Adults should limit consumption of lobster tomalleys to no more than the amount from two lobsters per day;
• Children should limit consumption of lobster tomalleys to no more than the amount from one lobster per day.”

In Newfoundland and Labrador the shellfish mostly likely to be involved with this bio-toxin problem is mussels. Mussels regularly on the market would come from aquaculture operations which are generally free from contamination and are subject to the requirements of the CSSP. More concern would exist with any sale of wild mussels and other bivalves that might come from contaminated sites or which are harvested at times when bio-toxins might be present.
In any event, the Operations Regulations of the NL Fish Inspection Act require in s.19 that:

“A person shall not market bivalve molluscs unless
(a) the molluscs have been harvested from an area approved for that purpose by the Minister of Fisheries and Oceans (Canada);

(b) the molluscs, when transported for sale to a processing facility or sales outlet, are in closed containers or bags that are tagged to indicate the type of species, harvesting site, date harvested and the name of the harvester;

(c) that person maintains a record of all tags referred to in paragraph (b) which record is available for inspection by an inspector; and

(d) the molluscs have been sampled and analyzed to monitor toxin levels in accordance with the protocols established and administered by the Canadian Food Inspection Agency.”

As well, a fish buying or processing licence is required to purchase fish from an operator licensed under the Aquaculture Act. All of these requirements effectively limit the sale of bi-valve molluscs to approved operators who obtain them from approved sites.

In the case of direct sales of bi-valve molluscs by fish harvesters it is difficult to rationalize why these special federal and provincial rules and regulations regarding the harvesting and marketing of these species should not apply. This is a special instance of seafood regulation that should not be altered because of the possible health issues involved. And since licensed aquaculture operators must sell to a licensed fish buyer or processor there is no logical reason why fish harvesters should be permitted to sell mussels or other whole bivalves directly to consumers or food premises. The same considerations would apply in cases of whole scallops, periwinkles and whelks. On the other hand, shucked scallop meats only are not considered a problem.

Parasites
Food-bourne illness can be caused by the presence of certain parasites in seafood. The presence of parasites in fish is very common, but most of them are of little public health concern. The parasite of most concern in Atlantic Canada is the seal worm or nematode (*Terranova decipiens* or *Porrocaecum decipers*). These are small round creamy white to dark brown worms occasionally found in the flesh of fish, particularly cod, harvested in areas when seals are plentiful. They are called seal worms because they spend part of their life cycle in seals. Eggs are passed by seals into the water, hatch and are eaten by small fish and shrimp-like animals which are in turn eaten by larger fish such as cod.

The occurrence of nematodes in fish is a natural phenomenon which cannot be prevented and by itself does not indicate mishandling or spoilage. If live worms are ingested by humans they may penetrate into the wall of the gastrointestinal tract and cause an acute inflammation.

Nematodes in fillets can be detected by “candling”; and then removed. The seal nematode is also destroyed by commercial freezing and storage as well as by normal cooking temperatures. While this nematode in fish can be unsightly, it is not then a health risk.

The main problem with these parasites in fish sold directly to consumers or food premises by harvesters is that in whole or dressed form they are not detectable and may be found in fillets that have not been cainted. If such fish is properly cooked before being consumed no health risk exists. There remains the possibility of such infested products reducing the demand for that seafood. On the positive side, this parasite, while present in some NL waters, is not as prevalent as in the Maritimes.

**Summary**

If fish harvesters are permitted to sell directly to consumers and/or food premises and are not subject to the same facilities, equipment and operating standards as are licensed fish processors or food premises there could be an increased health risk to seafood consumers and other members of the general public. These higher risks will arise from an increased likelihood of such seafood becoming...
contaminated with various bacteria such as listeria, botulism, salmonella and E. coli if the existing Fish Inspection Act requirements and standards do not apply to the conduct of such direct sales. In other words, government will not be able to offer the same assurance of safe and high quality seafood as should be expected from existing licensed fish processors and food premises. To give full assurance, any facilities requirement for fish preparation prior to direct sales would need to be as stringent as that which now applies to licensed in–province retailers or food premises. Essentially, this would be establishing another tier of processing operations and might also make the direct selling of small amounts of catch uneconomic. Nonetheless, direct sales of fish have been occurring for a long time and have caused no documented health problems from consumption of such fish; possibly because it is always properly cooked.
5. NL SEAFOOD INDUSTRY VIEWS

Views were solicited from the various participants involved in the NL seafood industry. The views outlined below were obtained from discussions with various individual operators and/or their representatives. These included individual operators and/or their industry associations engaged in harvesting, processing, in-province retail and food service operations. Specifically, views were obtained from the Association of Seafood Producers (ASP), the Association of Seafood Processors of Newfoundland and Labrador (ASPONL), the Restaurant Association of Newfoundland and Labrador (RANL), the Canadian Council of Grocery Distributors (CCGD), representative harvester and processing worker members of the Fish Food and Allied Workers Union (FFAW), several in-province retail licensees and one independent groundfish processor.

Harvesters

A general view amongst harvesters from various parts of the province is that the current prohibition on direct sales is overly restrictive and at odds with longstanding practices of selling fish directly to individual customers. In that context, they would favour a more realistic approach that permits true “direct sales” of limited amounts of fresh fish and some fish products to individuals who are clearly purchasing for personal/domestic consumption and not for re-sale. It is realized that such sales would be confined mainly to finfish and would not include such items as in-shell bi-valves and heat-treated or cold-smoked products. They would see salted fish being included and custom filleting being done at the request of the domestic purchaser. They understand the potential health concerns about “commercial-scale” selling to food premises and door-to-door.

Processing Workers

The primary and strong view expressed on behalf of processing plant employees is that a shortage of raw material exists in all parts of the province and processing workers are receiving inadequate incomes as a result. They, therefore, view any
direct selling of catches by harvesters are worsening an already unsatisfactory situation. They also allude to the added potential for contamination of seafood when sales take place from premises of unknown standards and under unregulated conditions. They expressed no support for any change in the existing regulations.

**Processors**
The overall fish processing industry (registered plants and in-province retailers) is basically opposed to any change in existing regulations. They would prefer more stringent enforcement of the existing rules. A primary concern is the leakage of raw material from existing licensed plants that need raw material to supply markets and provide badly needed employment. They are concerned about the increased potential for food-borne illness to occur from direct sales of fish from unregulated facilities and the consequent negative effects on the reputation and image of Newfoundland seafood. The processing sector bears the cost of operating the same buying locations that are used by such harvesters to divert raw material away from them. At times they receive only small amounts of often inferior landings after Personal Use quantities have been first provided for. They feel some harvesters are conducting direct sales of fillets on a scale that interferes with their present markets in the food service sector.

A related issue is that diversion of landings to Personal Use makes it more difficult to meet the annual processing volume requirement to retain a primary processing license. It is understood that this annual requirement for a groundfish processing licence will be increased for renewals after April 1, 2011. Another view was expressed that Workman’s Compensation coverage for harvesters might not apply when all of a trip’s catch is declared for Personal Use. The processing sector has also expressed concerns to DFO about direct sales being used as a means of under-reporting catches when self-reporting through DMP. It was also claimed that some fishermen feel it is legal to sell fish directly because DFO is not concerned about the reason catches are being declared for Personal Use.

**Department of Fisheries and Oceans**
While the regulation of fish sales is under provincial jurisdiction and a harvester’s declaration of total catches for Personal Use does not infringe any federal rule or regulation, direct sales of fish by harvesters have been a longstanding concern of the Department of Fisheries and Oceans (DFO) in the Newfoundland and Labrador (NL) Region. In the case of authorized commercial fisheries, the practice is viewed as often providing an avenue for disposing of under-reported catches, especially through self-declarations at DMP locations, or of non-reported landings by avoiding DMP points, especially which catches are small and in isolated areas. The direct selling of fish also has been the basis for illegal fishing in closed times. Consequently, this activity can negatively impact stock recovery efforts and catch reporting requirements; and can create a problem with the accuracy of recorded catch data. The problem is seen as particularly widespread in the case of cod. There is interest in collaborating with DFA on this issue and developing a joint approach to finding a solution to it.

**Canadian Food Inspection Agency**

While the Canadian Food Inspection Agency (CFIA) does not involve itself directly in the inspection of fish destined for domestic sales it has an interest and involvement in the issue. It is one of the federal agencies involved in the administering the Canadian Shellfish Sanitation Program (CSSP). The NL Fish Inspection regulations (s.19.1) requires that bi-valve molluscs can only be sold if the harvesting, processing, packaging and shipment of them meets the requirements of CSSP. In that regard, CFIA supports the provincial regulation of this particular activity. CFIA also performs the roles of analysing and identifying seafood contaminants and would assist provincial authorities if any such outbreak were to occur in local seafood. The Agency’s website is also the source of very useful information on managing the possible causes of food-bourne illness from seafood.

**Food Service Industry**

The restaurant sector that specializes in seafood dining is the part of the food service industry most interested in seeing some change in current direct fish sales
arrangements. These operators would be interested in obtaining fresh fish directly from harvesters to further promote and solidify the image that quality seafood is available for consumption in this province. They would be interested in obtaining more than just cod in this manner. They would also prefer that harvesters be required to observe some degree of sanitary operating practices and facilities standards. If this is not required by regulation, at least, education programs and advisory inspections could be used. They would only want to purchase whole or dressed fish which they can transform under their own food premises licences before serving. This reduces the possibility of food contamination from filleting or other cutting in less than food premises-grade facilities. They could envisage a system where both the buyer and the seller have to obtain a special licence to cover this particular form of direct sales. The licensing of such transactions would serve to identify and control those who want to buy and sell fresh fish in this manner.

They argue this would approach the similar arrangements in the Maritime Provinces whereby restaurants and/or licensed tourist establishments can purchase fresh fish directly from harvesters. That fact is used there as a feature in tourism promotion.

This sector believes that such a buying/selling system could be established that would avoid many of the shortcomings of the underground system that now exists. They would welcome, and may seek, more interaction with the Department of Fisheries and Aquaculture on this matter.

The grocery distributing sector favours leaving the existing regulations unchanged and strictly enforced. Their rationale for this is food safety.

**Individual Consumers**

Longstanding and discerning seafood consumers, with whom the issue of direct sales was raised, feel the availability of good quality fresh seafood at commercial outlets is inadequate and usually sporadic. All were quite surprised to learn that
existing regulations make it illegal in this province for an individual to buy fish from a fisherman and likewise for a harvester to sell fish directly to an individual consumer. The general, and predictable, reaction was that this is an untenable situation in a fishing province and that it should be rectified, at least to the extent of legitimizing a longstanding and traditional practice of acquiring fish directly from harvesters for one’s own domestic consumption. Such consumers would have no difficulty with this practice having a limit on individual purchases on a daily, weekly or any other basis.
6. CONCLUSIONS
The following conclusions are apparent from this review of direct sales by fish harvesters. Taken together, they indicate an overall unsatisfactory situation currently exists from the perspective of licensed processors and their employees, fish harvesters, food premises operators and consumers. The public policy question centres on the extent to which the problems currently faced by each of these groups can be responsibly accommodated in any change in, or maintenance of, current rules and policies.

The general picture obtained in this review is that direct fish sales occur in all parts of the province and have occurred for a long period. Cod is clearly the species of choice, accounting for 77% of catches declared for personal use/direct sales over the last six years. The remaining declared catches include most of the other groundfish species, the main local pelagics, some crustaceans (mainly crab scallops and shrimp) and small and varying quantities of tunas/sharks and other species. Overall, there is no apparent trend in the declarations of the species other than cod; the amounts of some are so variable that it may be questionable if they play any real role in personal consumption or direct sales. Hardly anyone who was contacted during this review even mentioned the non-cod species. Even Lobster was barely mentioned; it is not subject to DMP, so no data on this species being declared for personal use/direct sales exist.

The Avalon, Burin and Bonavista peninsulas are the locations of the major direct sales activity. This is because of the large concentrations of population throughout this area, the existence of cod fisheries and other lucrative fisheries that produce early-season earnings. The latter are argued to provide the base for using direct sales of cod as a “cash crop” later. There appears to be significant direct selling taking place by probably 1,100 or so harvesters province wide, with most of this direct sales activity taking place from landings in 3L and 3K. The average amounts involved would seem to go well beyond legitimate domestic consumption and even sales to individuals for their own personal consumption.
The current regulations do not allow any direct sales by harvesters to individuals or food premises but in recent years this seems to be honoured more in the breach than in the observance. Processing operators want this activity stopped claiming they need the fish for production and plant employment. In that they are supported by plant workers. Harvesters argue for some limited opportunities to conduct direct sales to individuals and accept that public health concerns will curtail the sale of certain species and certain product forms.

Direct sales of fish by harvesters are permitted with limits in the three Maritime Provinces and, indeed, elsewhere in Canada and widely in the US. The most common limitations include product form, the amount that can be sold to one individual at one time for personal consumption only, own catch only, licensed harvesters only and a requirement for some form of licence if sold away from vessel/premises (peddling). Some jurisdictions allow limited sales of fresh fish directly to restaurants and/or privately-owned fish retail shops. There are usually specific additional restrictions on, or requirements for, the selling of shellfish.

In this province, the sale of big and small game is controlled by requirements to obtain licences to sell and to buy. Except for caribou, game can only be bought for serving to customers in licensed food premises. The small-scale direct sales of rabbits are not considered a resource or public health risk. Also, the small-scale direct sales of vegetables and wild berries are exempt from active enforcement.

It is possible that the risk of food-bourne illnesses can increase when fish is sold directly from facilities and through handling practices that are not regulated as are the licensed processing and food premises operations. There could also be a risk of contaminating other food products and facilities from fish handled less rigorously than in commercial operations. While the actual degree of these risks cannot be quantified, neither can they be completely ignored. The positive feature is that virtually all fish that might be sold directly by harvesters is subject to regular cooking before consumption.
7. POLICY/REGULATORY OPTIONS
Based on the overall findings of this review, the following are considered to be the most viable policy and regulatory options that could be considered for addressing the issue of direct sales of fish by harvesters:

1. **Status Quo**
   This is the option of leaving the overall current situation unchanged. Under this option the current regulations would remain unchanged and enforcement would continue be virtually non-existent or inconsistent. Local sales of fish would continue at recent levels, or increase, if non-enforcement is clearly perceived to be the norm. Licensed processing operations would continue to be deprived of a portion of the fish being declared for Personal Use. In-province Retail operators and fish retail outlets would continue to lose some sales. Government would be unable to fully guarantee the safety of seafood that is bought and sold in this manner. While some food premises would receive fish at reduced cost, some risk of food-bourne illness would exist, depending on the extent to which sanitary operating standards and practices are observed by harvesters. Consumers obtaining fish through food premises would probably see no benefit coming their way unless reduced prices are passed on.

2. **Strict Enforcement of Current Rules**
   Under this option the current regulations would remain unchanged but strict enforcement of them would occur. This could be preceded by a communications campaign to explain the policy and regulations and the rationale for them. A smaller amount of landings would probably be declared for Personal Use; some legitimate level would still continue. Licensed processors may obtain some additional portion of the landings now being declared for Personal Use. Likewise, In-province Retailers and fish retail outlets could see an increase in business. Some current recipients of direct sales would see an increase in raw material costs. Consumers who obtain fish through food premises would see no actual benefit but might be at some reduced risk of food-bourne illness. The general
public would be surprised, and likely upset, to be informed it is illegal for them to purchase fish directly from a harvester and for the harvester to sell to them.

3. Permit Direct Sales to Consumers Only
Under this option, direct sales of fish by harvesters would be permitted to individuals for personal consumption only. These sales could be without limits or might involve restrictions such as the species and product forms permitted, quantities that can be sold directly, which harvesters may sell and the location and manner in which such sales may be made. Licences may be required by any harvesters that conduct this newly permitted activity.

Whatever the regulatory details, the impacts of permitting this type of direct sales will be negative for existing licensed processors, in-province retailers and resellers. They will suffer an added decrease in activity equal to the increased level of direct sales that results from this change; they are already undergoing a negative impact from current levels of unauthorized sales. Some food premises would be negatively impacted in relation to the increased supplies at lower prices that might be available directly to individual consumers. The latter would benefit from this option by having the traditional practice of buying fish from harvesters legalized and might also benefit from increased supplies of fresh fish being available. However, this option may also increase the risk of food contamination or illness depending on whether operating standards are established or encouraged for direct sales by harvesters. This could also be lessened by educating consumers in selective seafood purchasing.

4. Permit Direct Sales to Consumers and Food Premises
Under this option, direct sales of fish by harvesters would be permitted to consumers and to some, or all, licensed foods premises. These could be without limit or might involve restrictions on such items as the species, product forms and quantities that can be sold directly, which harvesters may do so and the location and manner in which such sales may be made and whether all, or some, food premises are included. Some of these limitations might be different for sales to consumers as opposed to food premises. Individuals might be limited to
purchasing a specified amount at one time for personal consumption only. Some, or all, food premises might also be limited to a specified amount per time period that could be bought directly from any one harvester. Both parties could be required to obtain a license to engage in this type of direct sale and purchase.

Depending on the volume permitted in each direct sale, the impacts of this loosening up of local sales might be negative for existing licensed processors, in-province retailers and re-sellers. They may suffer an added decrease in activity equal to any increased level of direct sales that might result from this change. Some food premises might benefit from increased supplies at prices lower than might be available from currently licensed operators and the product may be sometimes fresher. But they would be negatively impacted in relation to the increased supplies at lower prices that might be available also to individual consumers. This arrangement may also increase the risk of food contamination or illness depending on whether operating and facilities standards are established or encouraged for direct sales by harvesters. This could also be lessened by educating consumers and encouraging selective purchasing by food premises.
8. RECOMMENDATIONS
The following course of action is recommended as the one which is deemed the most appropriate when all factors surrounding this issue are taken into account. The overall set of recommendations is considered to strike a balance between the various competing interests in the NL seafood industry, consumers and the general public. There is no single approach that will satisfy even some of the desires of various interest groups. The recommended course of action is considered to be as practical and as pragmatic a one as is possible for dealing with this issue.

The existing Fish Inspection Regulations are aimed at managing the buying, selling and processing of fish by licensed operators within the province. The licensing of export processing plants and an in-province retail activity, permitting a fish re-seller category and the requirement for food premises (and re-sellers) to buy only from licensed fish processors or buyers has created a regulated marketing system that excludes direct sales by harvesters and direct purchases by individual consumers and food premises.

However, enforcement of this total prohibition against direct sales by harvesters has proven to be largely impossible. The longstanding practice of individuals’ buying fish for personal consumption directly from harvesters was the first negative factor. The second major reason was that the availability of cod in areas where early lucrative fisheries qualified harvesters for “summer EI” provided the basis for a significant portion of cod catches to be used as a “cash crop” in a paperless direct sales network. A large part of this latter activity is probably a more recent addition to the longer standing practice of harvesters selling directly to individuals for personal consumption. While processors feel direct selling should not be permitted, it is unrealistic to expect that all direct sales can be eliminated or that a certain portion of catches will not continue to go to legitimate personal consumption.
In a province where the fishery has long been a traditional activity, it is incongruous that certain direct fish sales by harvesters are prohibited, especially when similar sales are permitted in the Maritimes and elsewhere in Canada and in the US. The following set of recommendations is aimed at rectifying this anomaly while still affording some protection to the various competing interests in the seafood industry, consumers and the general public. The full array of recommendations must be considered as an overall package of proposed actions with the specified accompanying terms and conditions.

It is therefore recommended:

1. That the regulations be amended to permit direct sales of fresh whole or dressed finfish and uncooked shellfish and crustaceans (excluding bi-valves and gastropods but including scallop meats) to individuals. The amounts of such sales should be limited to a weekly purchase maximum of 20 lbs per individual purchaser.
2. That the regulations also be amended to permit the direct sales of filleted fish to individuals only. The amounts of such sales should be limited to a weekly purchase maximum of 20 lbs per individual purchaser.
3. That the regulations also be amended to permit the direct sales of salted and pickled fish to individuals only and to a maximum of 50 lbs per year in each instance.
4. That such purchases by individuals be solely for personal consumption and not for re-sale.
5. That the regulations also be amended to permit direct sales of fresh whole or dressed finfish to restaurants.
6. That the amounts of such sales to restaurants be limited to a weekly maximum of 300 lbs of each individual species.
7. That such purchases by restaurants be used only for serving to customers at the restaurant or through home delivery.
8. That only sales by a harvester of his/her catch be permitted.
9. That the harvester making the sales be the holder of the applicable species fishing licence.
10. That all such direct sales be permitted only at the harvester’s own vessel or fishing premises by the harvester or under his/her supervision.
11. That no peddling of their own catch by harvesters be permitted.
12. That a licensing and reporting arrangement similar to that in place for small game be instituted for fish sales to restaurants. The harvester would require a specific license to make such sales and the purchasing restaurant would need one to make such direct purchases. The latter would be required to submit monthly reports of quantities purchased from each harvester.
13. That DFA conduct a public education campaign to advise consumers and the seafood industry of the new regulatory arrangements and of ways to ensure food safety when purchasing and consuming the specified permitted species and products.
14. That DFA undertake a similar campaign to inform harvesters of responsible handling, operating and sanitary practices that would reduce the possibility of food contamination from their direct sales. This could include assessment of, and advice on, facilities and equipment used in direct sales activities by Inspection staff. Facilities found to be seriously contaminated might be prohibited from being used further for preparing fish for direct sale.
15. That DFA explore ways of developing cooperative enforcement arrangements with other provincial agencies and with DFO in respect of catches being illegally diverted into direct sales.

The rationale for this set of recommendations consists of the following points:

- This province is the only marine fishing province in Canada that totally prohibits the direct sale and purchase of fish.
- The current total prohibition against direct sales is largely unenforceable and generally untenable.
- Harvesters are granted some leeway in disposing of some of their catches directly to consumers and restaurants.
• Consumers are afforded a legitimate means of acquiring fresh fish, fillets and salted and pickled fish for personal consumption only directly from harvesters.
• Peddling of fish by harvesters beyond their fishing premises or vessel is not being permitted. Delivery of legitimate orders could be permitted.
• Licensed processors, re-sellers and fish retailers will be afforded some relief as the recent levels of direct sales should be restricted by the clear prohibition on sales of fillets to commercial operations and of other than a harvester’s own catch and by the purchase limits proposed for all sales to restaurants and to consumers.
• Restaurants are placed in a position similar to that of their counterparts in the Maritimes by being given an avenue for obtaining the fresh seafood they seek as part of their overall quality seafood marketing image.
• The requirement for a licensing and reporting arrangement for both harvesters and restaurants to engage in direct sales should be an added deterrent to illegal activity as well as an aid to enforcement.
• Restricting sales to holders of the specific species licenses only should eliminate the sales by those individuals who are alleged not to be harvesters.
• The proposed education/information campaigns will lessen or avoid potential food-bourne illness from the sale and consumption of fresh, salted or pickled finfish and the specified shellfish and crustaceans by educating both consumers and harvesters on ways to achieve seafood safety.
• Bivalves (except shucked scallop meats) and gastropods (periwinkles and whelks) are excluded because of the particular health risks associated with improper harvest and sale of these species; and also because provincial regulations already restrict sales of mussels (which is the main commercial bi-valve of consequence in this province) to those that meet the requirements of the Canadian Shellfish Sanitation Program.
• These recommended changes will put the arrangements for direct selling and purchasing of fish and fish products more or less on a par with those in the Maritimes and elsewhere.

• The recommended changes are also cast in a manner to distinguish the traditional selling of small amounts to individual consumers from the apparent quasi-commercial selling of fish and fish products to food premises in direct competition with existing fish processors. This suggests an enforcement strategy that would focus primarily on the latter activity should limited direct selling to individuals (and restaurants) be permitted.