

## The Tribulations of Antoine Ratté: A Case Study of the Environmental Regulation of the Canadian Lumbering Industry in the Nineteenth Century

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*This article examines the impact of industrial and commercial development of the Canadian environment during the Nineteenth century. Particular reference is made to the effect of sawdust on the country's waterways and fisheries. The article makes the point that the development of adequate legislative and administrative mechanisms, to deal with the problem, had to await the emergence of a consensus amongst the politicians, civil servants, the courts, and the general public that a problem existed.*

*Dans cette étude, on examinera l'impact qui se fit sentir sur le développement industriel et commercial de l'environnement canadien durant le dix-neuvième siècle. En particulier, on étudiera l'effet du brin de scie sur les cours d'eaux et la pêche. Cette étude démontrera également le retard du développement de mécanismes législatifs et administratifs portant à résoudre ce problème, ce retard étant cause d'une manque de consensus auprès des politiciens, des fonctionnaires, des Cours, et du public en général qu'un tel problème existait.*

If these men had a feeling of delicacy at all, knowing the intense feeling from one end of the country to the other on the subject, they would have been the first to act, because the Government have been protecting them from year to year. The government are the trustees of the country, and they have no right to allow our river to be destroyed, any more than any ordinary trustee would be justified in allowing property placed in his hands to be damaged.<sup>1</sup>

### 1. Antoine Ratté goes to Court

1885 was not a happy year for Antoine Ratté!

Ratté, a long-time resident of Ottawa, owned a boat house on the banks of the Ottawa River within the city, from which he rented rowing boats to those wishing to ply the river for pleasure.<sup>2</sup> In 1867 he had purchased a lot which fronted the river and to which his boat house was secured, from one Prevost. The latter was the grantee of the original patentee of the land,

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<sup>1</sup>From statement by Honourable Mr. Clemow, Senate Debates, 1894, 733 July 16.

<sup>2</sup>For details of Ratté's business, see his evidence, *Report of the Select Committee of the Senate on the Extent and Effect Upon the Ottawa River of the Deposit Therein of Sawdust and Other Refuse*, 1888, 223.

Joseph Aumond. Both the patent and the grant to Prevost described title as extending to a block of land fronting the river, and to an adjacent water lot stretching two chains into it. Furthermore, both instruments reserved the free uses, passage and enjoyment of the navigable waters on, under or flowing through, the water lot. The conveyance to Ratté, who had been permitted by Prevost to take possession some time earlier, made no mention of the water lot, referring merely to the boundary of the land covered by the title as being "the water's edge".

Ratté, on being put into possession by Prevost, had constructed a floating wharf and boat house, the dimensions of which were 60 feet in length and 16 feet in width. In 1874 he had increased the size of the wharf and boat house to 140 feet in length and 40 feet in width. This latter structure drew some 4 to 4½ feet of water and floated, attached by chains at each end to the shore.

During the 18 years in which he had run his business, Ratté alleged that the bay in which his boat house was located had been increasingly filled and fouled by the mill waste and sawdust discharged from the lumber mills approximately a half-mile up river in the Chaudière. This detritus, he claimed, made it increasingly difficult for him to get his boats in and out of his wharf, thereby adversely affecting his business. It also polluted the water, causing unpleasant odours and generating dangerous gas explosions.<sup>3</sup>

By 1885 the situation had become so serious in Ratté's mind that he launched an action against a group of Ottawa lumber mill operators to restrain them from throwing their sawdust and other refuse into the river. When he initiated his suit Ratté sought both an injunction and damages. Unfortunately for the plaintiff, prior to the trial the Ontario Legislature passed legislation which constrained the judiciary in dealing with claims for injunctive relief from pollution caused by the discharge of mill waste into the Ottawa River by saw mill operators. The enactment directed the judges to refrain from granting injunctions where the public interest in preserving the lumber industry in a particular neighbourhood outweighed the private injury or interference caused by the waste. In such cases damages were considered to be an adequate remedy.<sup>4</sup> Faced with this legislative road block, Ratté, dropped the claim for injunctive relief and proceeded with an action for damages.<sup>5</sup>

The defendants in their statement of defence reacted somewhat lethargically to Ratté's action, arguing simply in the alternative that the defendant was barred by prescription from claiming damages, and that as the river was vested in the Queen, the Attorney-General was a necessary

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<sup>3</sup>The most succinct statement of the factual background to this case is found in the judgment of Sir Richard Couch in (1890) 15 App. Cas. 188, 190-3 (P.C.). See also *Loc. cit.*

<sup>4</sup>*An Act Respecting Sawmills on the Ottawa River*, S.O. 1885, c.24, s.1.

<sup>5</sup>Reference is made to this in the Divisional Court by Boyd C. (1886) O.R. 491, 505.

party to any action. Subsequently, it seems to have occurred to the lawyers for the mill owners that these were not exactly persuasive arguments, and that more might be gained by emphasizing the disparity in the terms of the patent and grant on the one hand, and those of the conveyance to Ratté concerning the water lot on the other. Accordingly, at trial they argued that as the conveyance to Ratté made no mention of the water lot his title only extended to the water's edge, and title to the water lot remained vested in his grantor, Prevost. As a consequence, he could not claim any rights in the water or subsoil as no transfer had been made to him, nor could he claim as a riparian owner, as his property fronted not the river, but a water lot belonging to his grantor. The trial judge, Proudfoot J., considered the issue in the case as the narrow one of whether Ratté was entitled by conveyance to the water lot.<sup>6</sup> As he somewhat inexactly put it:

The sole question is, whether the plaintiff by reason of his being a riparian proprietor, is entitled to the two chains in the River Ottawa granted to Joseph Aumond.<sup>7</sup>

He noted that the Common Law rule (that the soil of a navigable river, such as the Ottawa, was vested in the Crown and protected from derogation or interference with the public right of navigation) had been tempered by Ontario legislation allowing grants by the Crown to private parties. Moreover, judicial opinion existed supporting the validity of the transfer of such grants, even in absolute terms. In the context of this case, however, he could find no intention to pass any right in the soil to the plaintiff. Therefore, the latter could not claim a right to place structures over or in superjacent water; still less could he succeed in any action for damage to or interference with those structures.

Having thus denied the plaintiff his action, he then vented his displeasure on the defendants for dragging on the proceedings and introducing their main objection as an afterthought, by dismissing the action without costs.

This was not, as we shall see presently, the end of the Ratté saga. Our hero was not a person to capitulate after one rebuff. He appealed successfully against Proudfoot's judgment to the Divisional Court in 1886.<sup>8</sup> For the six years thereafter the litigation dragged on as the defendants, whose tenacity seemed unending, unsuccessfully tried to reverse that decision and its consequences. In 1892, after no less than seven appeals, six of them launched by the defendants, Mr. Ratté came into port with his damages.<sup>9</sup>

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<sup>6</sup>For the trial judgment see (1886) 10 O.R. 351 (Chanc. Div.).

<sup>7</sup>*Ibid.*, 355.

<sup>8</sup>(1886) O.R. 491 (Div. Ct.).

<sup>9</sup>(1892) 21 S.C.R. 637. Ratté launched further actions. Indeed as late as 1898 he released two well known Ottawa lumber companies, J. R. Booth and Bronson & Weston from an action commenced in the Ontario High Court, May 12, 1898 for \$2000.00. See Public Archives of Canada, M.9. 28 III 26, Vol. 816., R69. (The Bronson Papers).

## 2. The Interest in the Ratté Litigation

In the narrow sense the litigation is interesting because it gives substance to the notion of the infringement of riparian rights in Canadian law and guidance on the appropriate procedural strategies which a plaintiff can employ in a pollution case when faced by several defendants all contributing to a common problem of environmental abuse. However, its greatest attraction is that it provides a snapshot of a major environmental issue in nineteenth century Canada which was for 33 years to engage the energy of not only the courts, but also Federal and Provincial Governments, Parliament and several provincial legislatures, and civil servants as well as significant elements of the public.

"The vexed question of sawdust", as one modern writer has described it<sup>10</sup>, is in many ways a paradigm of the classic environmental conflict to which we are so accustomed today. The economic imperatives of an exploitive industry resulted in growing environmental degradation which produced conflict with other users of a natural resource. The industrialists and their apologists argued vigorously that remedial measures were too costly and, if demanded by the legislature, would result in the ruination of the industry and thus the community which relied upon it. Government, which was initially inclined only to respond in a perfunctory and cosmetic way lest the industrialists' threat become a reality, was gradually drawn by its political instincts, public pressure, and the advocacy of the civil service into directly regulating the industry which was the source of the problem. The public reacted in various ways ranging from empathy with the industrialists to strong opposition to them. These poles of public opinion reflected dependency on the industry concerned on the one hand and independence together with adverse experience of the industry's practices on the other.

The sawdust story is instructive in a number of ways. In the first place it provides a microcosm of the steps which a new nation with a federal structure had to take to address the adverse realities of industrialization. Secondly, it demonstrates the importance of the interaction of the executive, the legislature, the civil service, the judiciary and the public in hammering out public policy on a major social issue of this type. Thirdly, it proves that the roots of environmental sensitivity and activism in this country reach down much deeper than we have been willing to suppose, and that some of our institutional structures and perceptions have been profoundly affected by that earlier experience.

The purposes of this article are to survey the broader social, political, economic and legal realities which surround the Ratté snapshot; more particularly to examine the nature of the fundamental conflict over the sawdust scourge, the roles and attitudes of the players in the conflict and

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<sup>10</sup>G. Allardyce, "The Vexed Question of Sawdust River Pollution in Nineteenth Century New Brunswick", 52 Dalhousie Rev. 177-90.

the gradual development of public policy, legislative and administrative expedients capable of dealing with it.<sup>11</sup>

### 3. The Genesis of the Environmental Conflict caused by Lumbering Operations in Canada

Lumbering, together with agriculture, were the mainstays of the Canadian economy for most of the nineteenth century. At the dawn of that century lumbering constituted an insignificant area of economic activity. The export trade was limited both by distance and cost in the case of Britain, and by earlier and aggressive cultivation of the North American and Caribbean markets by the New Englanders.<sup>12</sup> The picture was to change dramatically with the invocation of an embargo on Britain's trade with Europe by Napoleon in the years after 1805. This policy and the British reactions to it effectively dried up the traditional major source of British timber imports, the Baltic hinterland. Britain, in consequence, began to look to her North American colonies to replace her European suppliers. The outcome was the rapid development of the Canadian lumbering industry, initially in New Brunswick and Nova Scotia, and subsequently in Ontario and Quebec, especially in the Ottawa River basin.<sup>13</sup>

This economic windfall to the Canadian colonies was preserved to one degree or another after the Napoleonic Wars with the continued application of a protective tariff by the United Kingdom. After 1840, however, the British market became progressively unreliable because of the decrease and the subsequent removal of the preferential tariff as part of the movement towards "free trade" in British government policy. Fortuitously, the resulting lack of growth in trade with Britain was offset by a significant increase in demand from the United States, as it became more and more difficult with the exhaustion of accessible stands in New England and the Eastern seaboard to satisfy the growing demands of urban expansion in that country. The attractions of developing the market to the south were magnified by the emergence of a growing complex of transboundary water and railway links.<sup>14</sup> Along with the development of American markets came infusion of American capital, and the actual transplanting of American entrepreneurs to the lumbering regions of Canada. Indeed, it was in the 1840's when several families who were later to feature so prominently in the governance of the lumber industry and in the sawdust debate in the Ottawa Valley settled in Canada: the most notable being Eddy, Perly and

<sup>11</sup>The initial inspiration for this piece came from the suggestive essay by Peter Gillis, "Early Federal Regulatory Records as Potential Sources for the History of Science and Technology in Canada: The Case of the Sawdust Pollution Files, 1866-1902" in R.A. Jarrell and N.R. Ball eds., *Science, Technology and Canadian History*, 1980, 60.

<sup>12</sup>See in particular G. Wynn, *Timber Colony*, 1981, 20-5.

<sup>13</sup>*Ibid.*, 4-6, and C.G. Head, "An Introduction to Forest Exploitation in Nineteenth Century Ontario" in J.D. Wood (ed.), *Perspectives on Landscape and Settlement in Nineteenth Century Ontario*, 1975, 78-9.

<sup>14</sup>Head, *op. cit.* 84-8. See also M.S. Cross, "The Lumber Community of Upper Canada, 1815-1867" (1960) 52 *Ontario Hist.* 213, 214-6.

Bronson.<sup>15</sup> The shifting pattern of trade in lumber was accentuated with the signing of the Reciprocity Treaty covering Canadian and United States goods in 1854.<sup>16</sup>

Although the terms of the Reciprocity Treaty expired in 1866, and greater competition was experienced by the Canadian industry for a time as timber resources in the U.S. mid-west were opened up, the lumber industry in eastern Canada, especially in Ontario, continued to play a central role in the economy into the early years of the present century.<sup>17</sup> Indeed, the period from 1896 to 1910, when the Canadian economy was at its strongest since Confederation, was one in which the lumber industry, particularly in central Canada, was to flourish. Thereafter, it began to be replaced in the economic stakes by the derivative pulp and paper industry, and by mining. Moreover, as the supply of good standing timber dried up, the centre of lumbering activity shifted to the comparatively virgin stands of British Columbia.<sup>18</sup>

The economic structure of the lumbering industry altered during the course of the century, as both the conditions for lumbering and market preferences changed. In both New Brunswick and the Ottawa Valley the earliest units of production were small, depending upon individuals, families and community initiative.<sup>19</sup> Two factors were to change the pattern. As the desirable timber became less accessible, greater capital and larger organization was required to find, fell and transport the timber. According to Wynn this metamorphosis was underway by the 1830's in New Brunswick.<sup>20</sup> Secondly, the shift from the British to the American market represented a change from the production of squared lumber to sawn lumber. The latter required greater processing including the actual sawing of boards and planks which, as the export market grew, meant the establishment of larger saw mills and more elaborate means of transport. As Cross has noted:

[T]he Canadians were forced to organize on a capitalistic basis . . . The Montreal—or New York-centered company replaced the family unit as the usual group engaged in the trade and the professional lumberman became a familiar figure.<sup>21</sup>

This process of changing to larger units of production accelerated later in the century in Ontario as timber reserves declined further. The result, especially in the Ottawa region, was the concentration of power in the industry in relatively few hands. As the size and scale of their operations

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<sup>15</sup>W.E. Greening, "The Lumbering Industry in the Ottawa Valley and the American Market in the Nineteenth Century" (1970) 62 *Ontario Hist.* 134, 135.

<sup>16</sup>A.R.M. Lower, *The North American Assault on the Canadian Forest*, 1938, 123-47.

<sup>17</sup>*Ibid.*, 148-84.

<sup>18</sup>*Ibid.*, 185-201.

<sup>19</sup>Wynn, *op. cit.*, 85-6; Cross, *op. cit.*, 215-7.

<sup>20</sup>Wynn, *loc. cit.*

<sup>21</sup>Cross, *op. cit.*, 216-7.

increased, the timber men grew not only in economic stature but also in political clout. For a few (W.C. Edwards and E.H. Bronson are the most notable examples) lumbering and other industrial activity was combined with an active career in politics.<sup>22</sup>

As Cross has pointed out, the lumbermen of Upper Canada, both prior to and after Confederation, were conservative in the sense that they favoured stable and even assertive government which facilitated their industry and its growth and recognized its value to Canada's economic development.<sup>23</sup> The lumbermen were, as Nelles has shown, quite willing to support and work with the system of Crown title to forest land and the licensing of lumbering activities as long as it was conducive to opening up the best stands, facilitated their desire for extended credit and kept the agriculturalists at bay.<sup>24</sup> If anything, this feeling of "partnership" was underlined as the century came to a close when both economic depression and the exhaustion of the best reserves cut into profits.<sup>25</sup> As we shall see, however, the lumber industry's enthusiasm for state paternalism dissipated at the point at which governments sought to prohibit certain of its practices in an attempt to protect other interests, in particular the public interest in preventing progressive despoilation of natural resources and amenities.

Crucial to the operation of the lumbering industry were the waterways of Canada. In the first place, it was the streams and rivers which allowed the lumbermen to get the lumber from the distant forest to the ports, booms or mills, where the product was transported to domestic or foreign markets or further processed. This meant that the waterways in lumbering regions, in particular in spring, were full of lumber in transit as the winter cut was moved out of the forest.<sup>26</sup> Moreover, the streams and rivers were made subject to obstructions by a variety of structures, especially booms, dams and mills which enabled the lumbermen to control and process the timber with relative ease.

The sawmills had their own particular use for the waterways.<sup>27</sup> Although as early as the 1820's steam mills were established in certain areas, water-powered mills continued to be used for many decades, and some were still being operated at the end of the century. The processing of the timber was a messy procedure in that it produced a high volume of refuse. In the case of the water-driven mills, where sawing chambers were often

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<sup>22</sup>R.P. Gillis, "The Ottawa Lumber Barons and the Conservation Movement, 1880-1914" (1974) 9 *Jour. Can. Stud.* 14, 16-7. Edwards was a Liberal M.P. from 1888-1903 and a Senator from 1903-1921. Bronson sat as provincial member for Ottawa from 1886-1898, and was a member of the Liberal cabinets of Oliver Mowat and A.S. Hardy, 1890-8.

<sup>23</sup>Cross, *op. cit.*, 226-8.

<sup>24</sup>H.V. Nelles, *The Politics of Development: Forests, Mines and Hydro-Electric Power in Ontario 1849-1941*, 1974, 9-19.

<sup>25</sup>Gillis, *op. cit.*

<sup>26</sup>Wynn, *op. cit.* 62-69; A.R.M. Lower, *The North American Assault on the Canadian Forest*, 1938, 35-42.

<sup>27</sup>Wynn, *loc. cit.*

located well below the land at the shore line because they were powered by wheels which lay low in the water, the practice was to discharge all the waste, sawdust, slabs, bark and edging into the waterway.<sup>28</sup> The view seemed to predominate that a stream or river would put the refuse safely "out of sight and mind", by absorbing and diffusing it in its lower reaches or in the sea. This opinion was encouraged by the thought that to move the refuse up and out of the mill for disposal in another way, for example by burning, would be inordinately costly.

The use of the nation's waterways by an aggressive industry, such as the lumber industry, was bound to produce tension. A number of practices brought the industry into direct conflict with other important economic interests. In the first place, the unregulated placing of obstructions in the water, and the indiscriminate discharge of mill waste, interfered with and depleted valuable fish stocks in many streams and rivers, leading to friction with local fishing interests, both commercial and recreational. As early as 1850 Moses H. Perley, who had been commissioned by the Government of New Brunswick to examine the state of the colony's fisheries, noted the adverse effect on the salmon runs of mill dams and mill waste, and the detriment to spawning grounds from sawdust. Perley had no doubt of the need for remedial action:

The closing of the various rivers flowing into the Bay [of Fundy], and their tributaries, by mill dams; the injuries arising from sawdust and mill rubbish being cast into rivers and harbours; and the wholesale destruction of salmon in their spawning beds far up the rivers, have been pointed out in this report. They are all evils that require an immediate check.<sup>29</sup>

Secondly, both planned obstructions, such as dams, and fortuitous accumulations of mill offal also presented an impediment and danger to navigation, interfering with the passage of vessels, whether engaged in forwarding, fishing, leisure or even lumbering purposes. In 1830 the New Brunswick legislature was already receiving complaints about obstacles to navigation on the St. Croix River from mill refuse.<sup>30</sup> Finally, accumulations of floating lumber, dams and collections of refuse all interfered with and did damage to the interests of those living adjacent to the river. Damage to riparian interests occurred by flooding or by the deposit of mill waste and sawdust along the banks.

#### **4. The Early Legal Responses to Environmental Abuse in the Lumber Industry in Canada, 1830—1867**

The environmental problems caused by the lumbering industry were recognized by legislatures long before Confederation. The legislative expedients developed to deal with those problems were, in the main, tentative

<sup>28</sup>On the role, operation and environmental impact of the sawmills see Wynn, *op. cit.*, 87-94.

<sup>29</sup>M.H. Perley, *Reports on the Sea and River Fisheries of New Brunswick*, 1852, 176.

<sup>30</sup>Wynn, *op. cit.*, 93. These led to what Wynn describes as the ineffective *Act for the Better and More Effectual Securing of the Navigation of the River St. Croix in the County of Charlotte*, (1830) 10 & 11 Geo. IV., c.12.

and ineffective. In the first place the earliest legislation tended to be limited geographically in its extent and in its subject matter reflecting, in part, growth patterns in pioneer communities and, in part, a view of the role of government as essentially reactive. Although the colonial governments in Canada were deeply involved in promoting and encouraging economic development prior to Confederation, they had developed little sense of the need to initiate or manipulate social policy, still less of the desirability of managing the environment in the broader public interest. Secondly, again because of the essentially conservative view of the purpose of government, the same legislation limited its responses to criminal law prohibitions, and left its application and enforcement to traditional institutions. Only gradually did there emerge rather more integrated and comprehensive responses, and new types of institutions more functionally attuned to dealing with problems which were endemic rather than isolated. Thirdly, there is strong evidence that sectional interests, especially the lumbering industry, were able to influence the substance of the legislation so as to relieve them of responsibility where the potential burden of compliance might prove inconvenient and costly.

Legislation was enacted relating both to fisheries and navigation. The pioneer fisheries legislation in Lower and Upper Canada, enacted in the reigns of George IV and William IV respectively, purported merely to prevent the obstruction of salmon runs and the depletion of lake fish in specified counties and river systems.<sup>31</sup> In the Lower Canada Act, enforcement was specifically placed in the hands of the parish constable and administration made the responsibility of the justices of the peace.<sup>32</sup> In both statutes the old English practice of encouraging informants was adopted by dividing the fine equally between the informant and the Crown,<sup>33</sup> an expedient which suggests some doubt about the efficacy of official enforcement.

With the enactment of legislation for the regulation of fisheries in the Gaspé in 1836, we find the first mention of the prohibition of the discharge of substances deleterious to rivers. Reference was made especially to "ballast, or any thing else injurious or hurtful to any of the rivers, harbours and roads" and prohibits it being "thrown out of any vessel, or discharged into any stream, basin or road".<sup>34</sup> Of interest in an institutional context is that provision was made for appointment of Fishery Commissioners to assist in the development of regulations for the River Restigouche, which runs between Quebec and New Brunswick<sup>35</sup> and of Inspectors to carry the Act

<sup>31</sup>*An Act for preservation of the Salmon Fisheries in the Counties of Cornwallis and Northumberland*, (1828) 9 Geo. IV, c.51 (Lower Canada); *An Act to protect the White Fish Fisheries in the Straits or Rivers Niagara, Detroit and St. Clair, in the Province*, (1833) 3 Will. IV, c.56 (Upper Canada).

<sup>32</sup>(1828) 9 Geo. IV, c.51, ss. 7,3.

<sup>33</sup>(1828) 9 Geo. IV, c.51, s.9; 3 Will. IV, c.56, s.5.

<sup>34</sup>*An Act for the better regulation of the Fisheries in the Inferior District of Gaspé* (1836) 6 Will. IV, c.57, s.3.

<sup>35</sup>*Ibid.*, s.27.

into force.<sup>36</sup> This is the first hint of acceptance of the need for a special administrative regime to govern fisheries.

The legislative momentum continued and intensified with the establishment of the United Province of Canada in 1839. An enactment to consolidate legislation relating to malicious injury to property laid down that the malicious placing of lime or other noxious material in any fish pond or other private water amounted to a misdemeanour.<sup>37</sup> In 1857 the first comprehensive and consolidated *Fishery Act* was passed, bringing together and replacing the diffuse substance of earlier enactments. The anti-pollution provision from the 1836 act was narrowed in scope to cover merely ballast or fish offal thrown overboard from a vessel.<sup>38</sup> On a more positive note, there was provision for the appointment of Superintendents of Fisheries for both Lower and Upper Canada.<sup>39</sup> The 1857 legislation was clearly found wanting in detail, and within the year it was revised. In the revised Act, overseers were added to assist the Superintendents<sup>40</sup> and the Superintendents were expressly given the power of a magistrate to "convict upon review",<sup>41</sup> a novel institutional expedient which was later carried into Federal fisheries legislation. On the pollution front a clause was added prohibiting the throwing of "lime, or any chemical substance or dung into any water frequented by . . . fish mentioned in the Act".<sup>42</sup>

1865 marks the final fisheries enactment before Confederation and represents the first recognition of sawdust as a major pollutant to fisheries. Added to the prohibition of the throwing of lime and other chemicals, mentioned above, was the additional clause:

. . . and any sawdust or mill-rubbish shall not be drifted or thrown into any stream frequented by salmon, trout, pickerel or bass, under a penalty not exceeding one hundred dollars.<sup>43</sup>

The early fisheries legislation was paralleled by enactments which were more concerned with impediments to navigation. An Act in Upper Canada of 1828, which provided for the construction of aprons on dams to facilitate the passage of both lumber and fish,<sup>44</sup> was followed in that same jurisdiction by enactments which purported to control the state and size of lumber

<sup>36</sup>*Ibid.*, s.35. It is not made explicit in the Act just what was expected of these Inspectors.

<sup>37</sup>*An Act for consolidating and amending the Law in this Province relative to Malicious Injury to Property* (1841) 4 & 5 Vict., c.76, s.15.

<sup>38</sup>*The Fishery Act* (1857) 21 Vict., c.21, s.8.

<sup>39</sup>*Ibid.*, s.8.

<sup>40</sup>*The Fishing Act* (1858) 42 Vict., c.86, s.5.

<sup>41</sup>*Ibid.*, s.46.

<sup>42</sup>*Ibid.*, s.40.

<sup>43</sup>(1865) 29 Vict., c.11, s.18(2).

<sup>44</sup>*An Act to provide for the Construction of Aprons to Mill Dams over certain streams in this Province* (1828) 9 Geo. IV, c.4.

felled along specific rivers to obviate danger to mill dams and bridges and impediments to navigation.<sup>45</sup>

An indication that the adverse effects on navigation of mill waste were recognized from any early point is the fact that the New Brunswick legislative assembly passed an act in 1830 seeking to prohibit and penalize the discharge of such refuse into the St. Croix River. Interestingly, the application of the legislation was made contingent upon similar provisions being passed by the State of Maine which was the upper riparian on that waterway.<sup>46</sup> Similar provisions, without the complication of the reciprocity clause, were subsequently enacted for the Newcastle River and the Miramichi.<sup>47</sup>

In the early 1840's the Legislature of the United Provinces of Canada followed suit with more general legislation designed to prevent obstructions to navigation.<sup>48</sup> Under Section 1 of the Upper Canadian Act it was prescribed that:

[A]ny person who shall throw into any River, Rivulet or Watercourse, or any owner or occupier of a Mill who shall suffer or permit to be thrown in that part of this Province known as Upper Canada, any Slabs, Bark, Waste Stuff or other refuse or any Saw Mill (except sawdust) or any Stumps, Roots or Waste Timber or leached ashes, and shall allow the same to remain in such River, Rivulet or Watercourse, shall hereby incur a penalty . . .<sup>49</sup>

The specific exclusion of sawdust, which is replicated in subsequent legislation in the Province of Canada, reflected both the feeling that sawdust was an agent which would in time be dispersed and the concern that remedial measures would be too costly.<sup>50</sup> It represents a classic example of a legislature bowing to pressure from the lumbering interests.

The sawdust exception was also recognized in New Brunswick legislation which was enacted to secure the navigation of the St. John River and harbour. The Act referred merely to "slabs, edgings, roots, bark or chips

<sup>45</sup>*An Act to prevent the felling of Timber in the River Thames* (1833) 3 Will IV, c.29; *An Act to prevent the felling of Trees into Certain Rivers and Creeks within this Province* (1839) 2 Vict., c.16.

<sup>46</sup>(1830) 10 & 11 Geo. IV c.12, s.2. The hoped for reciprocal legislation was never enacted, and the legislation of 1830 was repealed in 1845 and replaced by a simple prohibitory provision. A later attempt to tie the application of the legislation to action by the Maine legislature was made in 1858. See *An Act for the better and more effectual securing the Navigation of the River St. Croix* (1853), 16 Vict., c.18. Later in the period after Confederation it was a frequent complaint by New Brunswick mill owners that they were open to prosecution under federal legislation, while their counterparts in Maine were free of legislation constraints. See *infra*.

<sup>47</sup>*An Act for the better and more effectual securing the Navigation of the Newcastle River in Queen's County* (1837-8) 1 Vict., c.27; *An Act for the better and more effectual securing the Navigation of the River Miramichi, in the County of Northumberland, and to protect the Fisheries on the said River* (1841) 4 Vict., c.19.

<sup>48</sup>*An Act for better preventing the obstruction of Rivers and Rivulets in Canada East* (1842) 6 Vict., c.17; *An Act to prevent obstructions in Rivers and Rivulets in Upper Canada* (1843) 7 Vict., c.36.

<sup>49</sup>(1843) 7 Vict., c.36.

<sup>50</sup>Debates of the Legislative Assembly of United Canada, Vol III, 1843, 722.

made or cut at any such Mill or Mills", and not to sawdust.<sup>51</sup> Here, however, unlike the Canadas, there seem to have been counteracting forces at work in the community, because 5 years later in 1849 the legislation was amended to extend the prohibition expressly to sawdust.<sup>52</sup>

In 1851 the special pleading talents of the lumbermen in the United Province seem to have worked again because, in an Act clarifying the earlier legislation, the geographical ambit of the legislation was limited by the specific exclusion of its application to the St. Lawrence and Ottawa Rivers and "to any River or Rivulet wherein Salmon, Pickerel, Black Bass or Perch do not abound".<sup>53</sup> Again the exception was carried through in later legislation, both in the consolidated enactment on rivers and streams of 1859<sup>54</sup> and, after Confederation, in the equivalent acts in Ontario.

By the time of Confederation then, there was clear recognition of the adverse environmental effects of mill waste in relation both to fisheries and navigation. With the exception of the consolidated fisheries legislation late in the period, there was no recognition of the need to develop a special regulatory regime for dealing with the problem; the initiative was left largely to private prosecutors through normal processes of the criminal law. With the exception of the fisheries legislation of 1865 in the Canadas and the later New Brunswick enactments on navigable waterways, the problem of sawdust was ignored. If it was a problem, which the lumber interests did not concede, its remedy was too costly to contemplate.

The fact that the problem of mill waste pollution worsened in the lumbering regions of Canada through to and beyond Confederation, demonstrates that by and large the legislation which has been discussed was ineffective.<sup>55</sup> With the exception of older settled communities, such as Saint John, New Brunswick, in which distinctive elements in the community pressured for remedial action and change<sup>56</sup>, the story is generally one of neglect. In the more remote lumbering areas, and, even in larger mainstream communities such as Ottawa, which were dominated by the lumber

<sup>51</sup>*An Act for more effectually securing the Navigation of the River and Harbour of Saint John in the City and County of St. John* (1844) 7 Vict. c.37.

<sup>52</sup>*An Act in addition to and in amendment of the Act relating to the Navigation of the River and Harbour of Saint John* (1849) 2 Vict. 52. The application of this Act was suspended until May 1, 1852 (see New Brunswick Local Acts, 1851, c.12), and the Carleton Tide Mills were exempted from its effect on the grounds that the latter could not be operated without the discharge of sawdust and that it would be ruinous for the lessee to operate the mills in compliance with the Act (see New Brunswick Local Acts, 1851, c.11). Interestingly, more general legislation in New Brunswick preserved the sawdust exemption, see *An Act for the protection and regulation of the Sea and River Fisheries*, R.S.N.B. 1854, c.101, s.9.

<sup>53</sup>*An Act to explain and amend the Acts for preventing obstruction in Rivers and Rivulets in Upper Canada* (1851) 14 & 15 Vict., c.123.

<sup>54</sup>*An Act respecting Rivers and Streams* (1859) 22 Vict. c.47.

<sup>55</sup>See Wynn *op. cit.*, 94. Wynn notes that in New Brunswick "the struggle to maintain the fishery and to avoid the depolation of rivers with mill waste was not joined until the 1870's".

<sup>56</sup>See the letters attached to *Report on the effects of Sawdust etc, on the Harbour of St. John*, Journals of the House of Assembly, New Brunswick 1849. Appendix ccxii-ccxvi.

barons, neither official policy nor community sentiment provided any stimulus for resolute action. Indeed, as the sawdust exceptions and the exclusion of the Ottawa River and the St. Lawrence from the navigation enactments demonstrate, the political and social climate was distinctly unfavourable to any sort of beneficial legislative interference.

### **5. Legislative Rhetoric and Administrative Neglect: The Attempts to Control Sawdust Pollution, 1867-1885**

It was with Confederation in 1867 that the pace of the debate on sawdust pollution quickened and that the stirrings of a national concern about it were perceptible for the first time. The major public forum for discussion was the Dominion Parliament and legislative and administrative initiatives were primarily the result of soul-searching in the federal government and civil service. The combination of a more assertive approach to government, the emergence of a professional civil service and the publication of parliamentary proceedings means that there is a greater wealth of documentary material in the form of the records of debates, official reports and departmental correspondence and internal memoranda than previously.<sup>57</sup>

The period stretching from Confederation to the turn of the century, when the public interest in preventing the degradation of the country's waterways received full legislative recognition at the Federal level, can be usefully divided into two. The first period runs from 1867 to 1885. It was marked by clear statements by politicians, civil servants and scientists concerning the progressive deterioration of a number of rivers and streams by sawdust, and by the development of legislative and administrative apparatus to deal with the problem. Yet any resolve to take firm steps to address the issue effectively in practice was successfully neutralized by the strong lobbying of the lumbering interests, and by their political friends. Neither politicians nor civil servants possessed the self confidence, the independence of mind or a clear enough appreciation of the role of government in setting and directing public policy to take on the vigorous proponents of private interest. In the second phase, from 1885 to 1902, as we shall see, this balance changed as both government and its officials developed a much more assertive attitude towards their role in setting social policy and in preserving the country's natural resources and amenities, and as other interests in the community pressed for resolute action against the industry.

That the conflict between the lumber interests and other users of Canadian waterways over their progressive despoilation was intensifying, and would inevitably generate greater public interest, became apparent just

<sup>57</sup>One significant drawback is the absence of files for the Fisheries Service of the Department of Marine and Fisheries for the period 1867-1894. These were lost when the West Block was destroyed by fire in 1894. See R.N. Wadden "The Department of Fisheries of Canada 1867-1967". (1967) Annual Review Fisheries Council of Canada, 47. Parliamentary reports, official reports lodged elsewhere and a useful digest prepared in 1894 before the fire by Captain Veith have survived.

before Confederation. In May 1866, Dr. E. Van Courtland, the Health Officer for Ottawa, concerned about the deteriorating state of the Ottawa River and the attendant dangers to navigation, fishing and public health, wrote to the Department of Crown Lands requesting that action be taken against the local mill owners to restrain them from dumping mill refuse, including sawdust, into the River.<sup>58</sup> The Department, which initially demonstrated vigour in pursuing the matter, sent a circular to the Ottawa mill owners seeking compliance with the *Fisheries Act* of Upper Canada which, as we have already seen, contained a prohibition against the throwing of sawdust or mill rubbish into streams containing trout, pickerel or bass.<sup>59</sup> The circular required that the mill owners adapt their practices to obviate further injury to the river and streams and ordered that no more mill rubbish be discharged into the river system.

The response of the mill owners was quick and to the point. They petitioned the Governor General, Lord Monck, arguing that it was impossible for the operators of water mills to comply with the legislation. Although they exhibited some willingness to change their practices, notably by volunteering to employ machinery to cut up slabs of wood normally discharged in a solid state into the water, they asserted that to deal with sawdust in any other way would be economically ruinous to them, and by implication to the community. The cost of controlling the sawdust in some other way would be, they claimed, greater than that of sawing the lumber. As an indicator of their "good faith" they suggested that the government appoint a competent person to examine the problem.<sup>60</sup>

This rejoinder, with its clear message that the common welfare of the lumber industry equated with the economic destiny of Canadians, seems to have been enough to blunt the early ardour of the Department, as the Commissioner of Crown Lands, Archibald Campbell, directed in September of 1866 that no suits be launched.<sup>61</sup> At the same time Horace Merrill, Superintendent of Ottawa River Works, was appointed to conduct an enquiry into the question. Merrill was characteristic of the earliest breed of Federal civil servants who blended a commitment to public service with strong entrepreneurial instincts. A self-made engineer, he was responsible for many improvements in the Ottawa including the construction of slides. He was also engaged in the manufacture of mill equipment, and was thereby well acquainted with, and well disposed towards, the local lumbermen.<sup>62</sup>

<sup>58</sup>Public Archives of Canada, Dept. of Fisheries R.G. 23, file 1669, pt. 1, digest of papers 1866-1880, p. 1.

<sup>59</sup>*Supra*, note 41.

<sup>60</sup>P.A.C. *op. cit.*, pp. 1-2, memorial sent to Lord Monck Governor General of Canada by the Lumbermen of the Chaudiere, Sept. 8, 1866.

<sup>61</sup>*Ibid.*, p. 2.

<sup>62</sup>P. Gillis, "Early Federal Regulatory Records as Potential Sources for the History of Science and Technology in Canada: The Case of the Sawdust Pollution Files—1866-1902" in R.A. Jarrell & N.R. Bell Eds., *Science, Technology and Canadian History*, 1980, 60, 64.

Merill's report, which was completed in December 1866, not surprisingly evinced sympathy for both the mill owners and their detractors.<sup>63</sup> Merrill added scientific credibility to the mill owner's economic arguments on sawdust by stating that from his observations, the agent was not a proven impediment to navigation, although it might have an adverse effect on fish. The latter was a consequence which was apparently of minor significance to him. At the same time he concluded that the slabs thrown in by the mills did interfere with navigation and recommended the institution of grinding machines to break them up and so disperse them.

The Commissioner of Crown Lands readily acceded to the compromise suggested in the Report and a new circular was prepared incorporating Merrill's advice. The mill owners were enjoined to install grinding machines immediately and threatened with prosecutions if no remedial action was taken.<sup>64</sup> Merrill himself was a beneficiary of the revised policy, as it was his company which produced the grinding machines required by the circular.<sup>65</sup>

Through a combination of voluntary action and pressure from the Department, some mill owners in the Ottawa area installed grinding machines thereafter, although the records show that compliance was not universal.<sup>66</sup> Somewhat ominously, as later events were to demonstrate, one mill company, Messrs. Hamilton of Hawkesbury, sought an exception to the application of the circular arguing that compliance was difficult for them. They claimed that their operations were patently of no impediment to navigation and that the banning of the disposal of the mill offal would deprive the local inhabitants of their main source of fuel.<sup>67</sup> This show of community solidarity and the independent observation of an Ottawa steamer captain that no interference with navigation was perceptible below Hawkesbury, persuaded the Commissioner that an exception should be granted.<sup>68</sup>

The first salvo in the conflict between the lumber men and the government seems to have gone in favour of the former. However, any feeling that they would now be sheltered from the public gaze and, worse still public criticism, was quickly dispelled. In 1868 the Department of Marine and Fisheries was established with responsibility for administering "any laws made or to be made relating to . . . sea, coast and inland fisheries and the management, regulation and protection thereof".<sup>69</sup> The former Fisheries Branch of the Department of Crown Lands of the Canadas was in-

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<sup>63</sup>P.A.C. *op. cit.*, pp. 2-3.

<sup>64</sup>*Ibid.*, p. 3.

<sup>65</sup>*Ibid.*, p. 5.

<sup>66</sup>*Ibid.*, pp. 5-6.

<sup>67</sup>*Ibid.*, p. 4.

<sup>68</sup>*Loc. cit.*

<sup>69</sup>An Act respecting the Department of Marine and Fisheries S.C. 1867-8, c.57, s. 5, and Schedule, Clause 1.

corporated into the new Department.<sup>70</sup> At the same time a federal *Fisheries Act* was enacted incorporating existing provincial laws and including a provision on water pollution and sawdust, similar to that contained in the 1865 Upper Canada legislation.<sup>71</sup> By this legislative action the Federal Parliament both reiterated the earlier concern about sawdust pollution and established an institutional structure which, given the requisite political will, could be used to deal vigorously with the problem.

Firm political will was to prove somewhat elusive in the operations of the new fisheries regime. The Federal government and Parliament shared some of the same deference to the interests of the lumbermen shown by their predecessors. This is seen in the addition of a rider to the sawdust and mill rubbish provision in the *Fisheries Act*, giving the Minister power to exempt any stream or streams in which he considered that enforcement was not required for the public interest.<sup>72</sup> This same reticence was reflected in civil service attitudes.

Caution at the governmental, legislative and administrative levels, however, did not prevent criticism in Parliament. The debates in the Commons at the beginning of the 1870's reveal that a group of members existed who evinced great concern over the deterioration of water quality deriving from the sawdust menace. These individuals were prepared to try and use the legislative process to redress the balance in favour of the public interest, which they felt had been compromised by the *Fisheries Act*.<sup>73</sup> In 1871, the Honourable Richard Cartwright introduced a Bill for the better protection of streams and rivers which prohibited and penalized the discharge of mill rubbish, including sawdust, into any navigable stream or river "either above or below the point at which such stream ceases to be navigable"; empowered fisheries officers to prosecute those contravening the Act; and placed the onus on the exploitive interest to show to the satisfaction of the Minister "that no injury was likely to accrue to navigation of the River", as a condition of the grant of an exemption.<sup>74</sup>

This Bill obviously caused a considerable amount of debate and discomfort in the Commons, especially in the Banking and Commerce Committee to which the Bill was referred. The discomfort was, of course, accentuated by the pious representations of the lumber barons that they were doing no harm. What many members felt was lacking was the scientific evidence which would allow them to make a considered decision on the issue. As a consequence, it was decided that the matter should be referred to a commission of experts who would be charged with a full examination of the alleged dangers to navigation caused by mill waste in the Provinces

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<sup>70</sup>Wadden, *op. cit.*, 33.

<sup>71</sup>*The Fisheries Act*, S.C. 1867-8, c. 60, s. 14(2).

<sup>72</sup>*Loc. cit.*

<sup>73</sup>House of Commons Debates, 1871, 191-8, Feb. 28.

<sup>74</sup>H.C. Debates, 1871, 54, Feb. 20. The text of the Bill is given in *Report of the Commission appointed to enquire into the condition of Navigable Streams*, 1873 Sessional Papers, No. 29, 6.

of Quebec and Ontario. A commission was established comprising H.H. Killaly of Toronto, as Chairman, R.W. Shepherd of Montreal and John Mather of Chelsea.<sup>75</sup>

The Report of the Commission, which is dated 1873, represents the first considered and dispassionate examination of the mill waste problem in Canada and as such, represents an important landmark in the evolution of public policy in Canada on water pollution caused by the lumbering interests. The Commission was very careful to establish distance from the lumber mill owners. The latter endeavoured to persuade the Commission that expert evidence showed conclusively that, while solid forms of mill waste might be an obstacle to navigation, sawdust clearly was not. In this they relied on a report prepared at the behest of Mr. E.M. Bronson by a civil engineer, Professor Green, who without testing the Ottawa itself, conducted tests with models, and on a host of letters written to the mill owners' representatives by residents of the state of New York, swearing that sawdust was not a problem in the Hudson River system despite its use as a repository for mill waste over many decades.<sup>76</sup>

The Commission found this evidence unconvincing, preferring the contrary opinion of a New Brunswick mill proprietor and legislator, Mr. Muirhead, who spoke with authority of problems with sawdust in his province, and that of General Thomas of the U.S. Army who had himself conducted a similar study of the Hudson.<sup>77</sup> More importantly, however, the Commission did an extensive personal survey of the major areas of lumbering activity in both Quebec and Ontario. Their own visual observations, discussions with local interests and the borings which they commissioned convinced them that the case against mill waste as an agent of deterioration in the state of rivers was proven. Shoals developed as accumulations of sawdust built up and mixed with sand; the bed of the Ottawa at points was covered with slabs; floating islands of sawdust collected; bad obstructions existed at the confluence of the Rideau and Ottawa and in certain bays along the banks of the latter; finally the build-up of gas in rotting accumulations of sawdust caused occasional explosions in winter, as well as offensive odours.<sup>78</sup> Most of the phenomena constituted actual or potential interferences with navigation.

The Commissioners were not impressed with arguments advanced by the lumbermen as to why compliance with the proposed legislative injunction on the discharge of sawdust was impossible.<sup>79</sup> They were able to point to the fact that mills elsewhere in Ontario had adopted other more satis-

<sup>75</sup>See Journal of the House of Commons, 1871, 65 March 10; *Report of Commission on Navigable Streams, op. cit.*, 1-2.

<sup>76</sup>*Report of Commission on Navigable Streams, op. cit.*, 7-8, 27-35.

<sup>77</sup>*Ibid.*, 11-12, 56-7.

<sup>78</sup>*Ibid.*, 12-15.

<sup>79</sup>*Ibid.*, 15-16.

factory methods of disposing of mill waste, without incurring economic ruination. Moreover, they argued that in comparison with profits of the lumber mill owners, the cost of remedial measures would be a trifling drain on their resources. Finally, they cast doubts on the spectre of fires, if the mills converted to the burning of refuse, which the lumbermen raised as a pragmatic reason for preserving the *status quo*. Indeed, the Commissioners went as far as to accuse the lumbermen of bluff, as the following prophetic observation shows:

But leaving that question aside [the danger of fire], we believe that should it be eventually decided by the legislature, on more extensive information *than has yet been adduced*, as to the injurious effects of sawdust upon navigation, that some of it shall, in any case, be allowed to be thrown into the rivers, these larger capitalists would soon devise means for otherwise getting rid of the nuisance, then by closing up and removing their establishments.<sup>80</sup>

The factual recommendations of the Commission reflected their findings and observations.<sup>81</sup> They first of all pointed to the need to consider the interests of navigation as well as those of the lumber industry. Secondly, they noted the tendency of the lumber interests to focus narrowly on navigation in the main channels of rivers where the build-up of obstacles was not so evident. It was necessary to point to the problems of sawdust in the bays, for the Commissioners saw increasing problems of interference in the future with wharves and passage along the riverbank. Finally, they asserted the importance of keeping river frontage in Ottawa clear if the future of the city as an important navigation point was to be assured.

Remarkably, given their ostensibly conclusive findings and the blunt tenor of their remarks, the advice of the Commissioners on the elements of legislation needed to protect navigable waterways was conservative, even retrograde.<sup>82</sup> They advocated the introduction of a bill prohibiting the discharge of sawmill refuse, but excepting sawdust. In what appears to be an attempt to resolve the sawdust issue by architectural prescription, they recommended the prohibition of openings in mills, except for ventilation and lighting, and the use of small mesh gratings on such openings. Finally, they advocated the appointment of an officer to enforce the Act with power of summons before a magistrate. That for some reason they lacked the courage of their convictions and were persuaded not to carry through their findings to their logical conclusion is seen in the fact that the Commission added a final rider suggesting that *if* it was proved to the Government that "the continued discharge of pure sawdust does and will impair the navigation, or create impediments thereto in any manner, the Government shall have the power in such cases to exclude it in the same manner as provided against the deposit of the other refuse".<sup>83</sup> Their final conclusion

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<sup>80</sup>*Ibid.*, 16-17.

<sup>81</sup>*Ibid.*, 24.

<sup>82</sup>*Ibid.*, 25.

<sup>83</sup>*Loc. cit.*

was that further evidence was required to determine conclusively whether sawdust by itself was a present menace to navigation.

The legislators, for their part, seem to have been affected more by the findings of the Commission than by their legislative recommendations. The Bill which was passed into law embodied the provisions originally suggested by Mr. Cartwright, with the difference that the exemptions provision placed the onus on the lumber interests to prove to the satisfaction of the Governor-in-Council that the "public interest would not be unjustly affected" by the discharge.<sup>84</sup> This was substituted for the more demanding original wording that "no injury was or was likely to accrue to navigation of the River."

The legislation had just been proclaimed when the mill owners, mindful of the possibility of exemptions being granted, endeavoured to persuade the Department of Marine and Fisheries that to apply the legislation to their several mills would be contrary to the public interest.<sup>85</sup> The initial reaction of the Department was negative and decisive: the legislation would be enforced. As a result, in 1875 the first prosecution of an Ottawa lumber baron, J.R. Booth, was instituted and a fine of \$20.00 exacted from the offending mill owner.<sup>86</sup>

Booth's prosecution, if anything, increased the resolve of the industry to circumvent the legislation, as well as stirring the sympathy of members of the community who benefited from collecting the waste by-products of the sawmills, for a new round of representations seeking exemption were made.<sup>87</sup> Once again the government, instead of carrying through with its initial firm policy, weakened in the face of sectional opposition and rather than seeking further convictions instituted another inquiry into the state of the Ottawa.<sup>88</sup> The inquiry was conducted by none other than John Mather, one of the three commissioners who had reported in 1873. Mather, a former manager of the Gilmour mills on the Gatineau turned civil servant, carried out a painstaking examination of the disposal of mill waste into the River, a study which lasted for 6 months and involved taking both soundings of the riverbed and water samples.<sup>89</sup>

Not surprisingly perhaps, Mather's report reached the same paradoxical conclusions as that of the Commission before him. From his study he estimated that 12,300,000 feet of sawdust were deposited annually into the

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<sup>84</sup>An Act for the better protection of Navigable Streams and Rivers S.C. 1873, c. 65. See also H.C. Debates, 1873-74 Micro. Reel #5, 96, 127-8, 139.

<sup>85</sup>P.A.C., Dept. of Fisheries R.G. 23, file 1669, pt 1, digest of papers 1866-1880, p. 7. See applications by Hamilton Bros. of Hawkesbury (Sept. 29, 1876) for exemption.

<sup>86</sup>*Ibid.*, p. 7.

<sup>87</sup>*Ibid.*, p. 8. See the petition from inhabitants of Ottawa River (December 20, 1876) seeking exemption of the Hawkesbury Mills, because of the value to them of slabs and edging collected for fuel.

<sup>88</sup>Order-in-Council, October 25, 1876.

<sup>89</sup>Gillis, *op. cit.*, 68.

Ottawa River between the Chaudière and Grenville, supplemented by miscellaneous mill rubbish.<sup>90</sup> He also noted the build-up of accumulations in certain sectors, in particular in the bays opposite the Gatineau, at the confluence with the Rideau, and at the Grenville locks.<sup>91</sup> Like the Commission before him, Mather gave short shrift to the arguments of the mill owners that on both economic and technological grounds it was impossible for them to comply with the legislation as it applied to sawdust.<sup>92</sup> He advocated strongly the installation of furnaces to burn the waste. This was preferable to carting it away for use as land fill on both practical disposal and cost grounds. He found unconvincing the mill owners' objection that because of the close proximity of the mills in the city of Ottawa and the resulting danger of fire, insurance premiums would shoot up. His own enquiries of the insurance industry suggested an increase of the order of 2%.<sup>93</sup>

Not only did Mather advocate the use of furnaces, but he also elaborated a technology for extracting the sawdust.<sup>94</sup> This involved carrying the dust from under the machines by flumes of water to the furnace, where it would be separated from the water and dried prior to burning. If these measures were implemented he estimated that the effect would be to add 15 cents to the cost of every 1,000 feet of lumber sawn.

Despite his findings, his conclusions were to betray the same hesitancy as those of the Commission on the issue of interference with navigation. Indeed, he went further, and asserted that the evidence did not demonstrate that the sawdust was an impediment to vessels plying the river.

It is difficult to say where the 12,000,000 feet of sawdust, and mill rubbish annually deposited in the Ottawa goes to: but it is evident from the investigations made that only a small portion of the whole stays in the river; it is probable that a large quantity lies in the still water of the Lake of Two Mountains, a portion also finding its way to the River St. Lawrence. There is no evidence that any noticeable quantity remains in the navigable channel of the river, where the water is in motion. I am therefore convinced that no accumulation injurious to navigation in the future can ever take place.<sup>95</sup>

Faced with this firm conclusion in a study which was seen as genuinely scientific in character, and the continuing demonstrations of the mill owners and their allies, the Department of Marine and Fisheries decided to negotiate with the lumber interests rather than to prosecute them. In 1877 a meeting was held in the office of the Minister involving the mill owners, Mather and representatives of the Department to discuss means of "im-

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<sup>90</sup>P.A.C. Dept. of Fisheries R.G. 23, file 1669, pt 1, digest of papers 1866-1880, p. 8 (1-3).

<sup>91</sup>*Ibid.*, p. 8 (2).

<sup>92</sup>*Ibid.*, p. 8 (1).

<sup>93</sup>*Loc. cit.*

<sup>94</sup>*Ibid.*, *Loc. cit.*

<sup>95</sup>*Ibid.*, p. 8 (3).

plementing" the report.<sup>96</sup> The results must have warmed the hearts of the lumberman, as all that was achieved was that the owners undertook to desist from throwing solid items into the water and to be more careful in grinding up slabs. In this they were willing to work with Mather to improve the situation. They rejected outright the suggestion that they should desist from throwing in sawdust and grindings.

Despite the fact that some mill owners continued to contravene both the Act and the undertaking to refrain from throwing in solid mill refuse, the Government shied away from legal action, resorting instead to persuasion through the good offices of Mather.<sup>97</sup> The mill owners were far less coy, as both they and the residents of the communities which relied on them, either generally or indirectly for their economic livelihood, continued the pressure for exemptions. Petitions and letters flowed in from the mill towns, such as Buckingham<sup>98</sup>, and from both the inhabitants of the riverain counties and their parliamentary representatives.<sup>99</sup> In the face of this campaign the government relented and by an Order-in-Council dated June 23, 1880, a series of mills in Ottawa, Hull and on the Gatineau secured exemptions from the prohibitions against the discharge of mill waste set down in the 1873 *Navigable Waters Protection Act*.<sup>100</sup>

For a season the Ottawa River lumber men achieved their purpose and emasculated the county's first serious attempt at environmental regulation. Faced with politicians who found it difficult to see beyond the economic imperatives fed to them by the mill owners, specifically the notion that what was good for E.B. Eddy or J.R. Booth was good for Canada, and by officials who, while they were sincere servants of the government, were also temperamentally and philosophically inclined to the values of the lumbering interests, they were able to preserve the *status quo* and blatantly ignore the very serious environmental implications of what they were doing.

## 6. Challengers, Champions and Vacillators: The Control of Sawdust Pollution, 1885-1894

Viewed in one light the year 1885 must have seemed particularly comforting to the lumber barons of the Ottawa Valley, for it was in that year that they achieved a remarkable legislative coup in Queen's Park. Obviously concerned at the possible outcome of the suit launched by that ungrateful

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<sup>96</sup>*Ibid.*, p. 9.

<sup>97</sup>*Ibid.*, pp. 9-13.

<sup>98</sup>*Ibid.*, p. 10. See petitions from inhabitants of Buckingham and from Jas. McLaren & Co. (January 29, 1878).

<sup>99</sup>*Ibid.*, p. 11. See petitions from residents of counties bordering on the Ottawa River (Feb. 19, 1878 by R. Harwood, M.P.) and (April 16, 1878 by J.B. Daoust, M.P.).

<sup>100</sup>Included were the mills of the leading lumbermen in the Ottawa area: those of Booth, Jas. McLaren, Perley & Patter, Eddy, Bronson & Weston and Gilmour.

boat house owner, Antoine Ratté, which introduced a new and untested element, the judiciary, into the equation and at the spectre of injunctive relief, the mill owners took themselves to Toronto to put their case. While the audience was new, the tune was predictable. The Toronto Globe reported the Honourable T.B. Pardee as remarking:

[A] deputation [of mill owners] had waited on the government. When the representatives were asked why they did not burn the sawdust they replied they could not.<sup>101</sup>

Despite the familiar refrain, the mill owners were able to persuade the Mowat government that legislation was urgently needed to protect them and the communities which they served from potential economic disaster wrought by the courts. Furthermore, they were able to prevail upon the Ontario government to make the Act retroactive and applicable to suits already pending. Oliver Mowat himself moved the second reading, signifying the importance attached to the enactment.<sup>102</sup> The result was, as we have already seen, to remove the injunction as an effective remedy in any case launched—by a riparian owner on the Ottawa system against saw mill operators, and more specifically, to restrict Ratté to an action for damages.

Notwithstanding this remarkably successful piece of lobbying, signs were already developing of renewed and, indeed, extended opposition to the practices of the mill owners. In the first place, the Ontario enactment did not go through unscathed. One of the M.P.P.'s, Mr. Young, was very blunt in his criticisms of the lumber industry's insensitivity to the environmental damage it was doing and its political antics in successfully immunizing itself from legislative control.<sup>103</sup>

Secondly, the fact that Ratté, despite the odds against him, proceeded with his action, suggested that there were some members of the community, at least, who were ready to go to almost heroic ends to curb the power of the lumber barons. Ratté's resolve, too, brought into the debate exactly that constituency which the mill owners wanted excluded, the judiciary. The latter were thus enabled to make public their views on the matter. As we have seen, after his first judicial rebuff, Ratté appealed to the Divisional Court in which both judges concluded that he was entitled to succeed in his action.<sup>104</sup> They differed somewhat in their reasons, Chancellor Boyd

<sup>101</sup>The Globe, Thursday, March 24, 1885 reporting on second reading in Ontario Legislature, March 23.

<sup>102</sup>*Loc. cit.* Interestingly, the Bill, as introduced, contemplated exemption from court action by order of the Lieutenant-Governor in Council. The Leader of the Opposition, Mr. Meredith, objected to the exclusion of the Court's power in favour of executive discretion. The objection seems to have been taken to heart for the Act, as passed, left the issue with the courts but constrained their freedom of action. See *An Act respecting the Saw Mills on the Ottawa River* S.O. 1885, c. 24.

On the more general issue of the balancing of conflicting water uses in Ontario, see J. Benidickson, "Private Rights and Public Purposes in the Lakes, Rivers, and Streams of Ontario, 1870-1930" in D. Flaherty ed., *Essays in the History of Canadian Law*, Vol II, 1983, 363-417.

<sup>103</sup>*Loc. cit.*

<sup>104</sup>(1886) 11 O.R. 491 (Div. Ct.).

emphasizing Ratté's undoubted status as a riparian owner and Ferguson J. finding that the title which Ratté received included the water lot.<sup>105</sup> In terms of the emergence of public policy the more important factor is that the judges were able to assess whether the activities of the defendants amounted to actionable conduct. Chancellor Boyd put the matter beyond doubt:

The evidence very clearly establishes that the defendants are wrongdoers who from their mills allow sawdust, blocks, chips, bark and other refuse to fall into the River Ottawa, and thereby pollute the water and impede navigation. This refuse accumulates in great floating masses, substantial enough occasionally for a man to walk upon, and the tendency of the currents and the prevalent direction of the wind bring these masses in front of the plaintiff's property, up to his boat house and wharf and to the banks of his lot. Depositions of sawdust are thus by degrees formed before his property; and they result not only in fouling the water, making it offensive both to taste and smell, but produce from the gas generated underneath the surface frequent explosions which are disagreeable and sometimes dangerous. It is thus proved that the plaintiff sustains special injury beyond the rest of the public by the unauthorized interference of the defendants with the flow and purity of the stream. He is injured in the personal enjoyment of the property and the river, and he is injured in the business which he follows of hiring and housing pleasure boats.<sup>106</sup>

This unequivocal statement of the defendants' errancy and irresponsibility was accepted by both the Ontario Court of Appeal and by the Privy Council in subsequent appeals by the defendants on the issue of liability. Although the Courts were unable to do anything significant to put a stop to the practices of the mill owners, because of the Ontario statute, the statement represents an important articulation of judicial thinking on this particular environmental problem, and constituted an important and respected element in the growing chorus of voices which were being raised against the practices of the lumber industry.

It was elsewhere, however, in other forums, that the real battle over sawdust pollution was to be played out.

Despite the adroit political maneuvering of the lumbering interests, two factors came into play which made it increasingly difficult for the mill owners to shield themselves from public criticism and official scrutiny. In the first place, the cumulative and deleterious physical effects of the dumping of mill waste in general, and sawdust in particular, were reaching alarming proportions in some of the country's waterways. As long as the pollution caused by sawdust remained largely insidious and lumber interests had been able to argue that the case that they were ruining the nation's rivers and streams was not proven. However, once the sawdust manifested itself as a permanent aesthetic blight and the cause of physical obstruction as well as a sensory and explosive nuisance and a potential health hazard, no amount of bluster or obfuscation could shroud these realities. Secondly, along with the realization within the community that sawdust was becoming

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<sup>105</sup>*Ibid.*, 495-505; 505-16.

a major social menace, public criticism grew and interests which had theretofore been silent or muted began to exert pressure to regulate the waste disposal policies of the lumber industry.

The patent effects of the industry's abuse of the environment, and the developing barrage of public criticism, were not lost on the political process. From 1885 onwards there is evidence of a growing sensitivity on the part of legislators, civil servants and ministers to the demands for protection of the country's water resources. The period since Confederation in 1867, and especially that since 1878 when Sir John A. Macdonald formally introduced his National Policy with its emphasis on tariff protection, was marked by gradual growth in Canadian trade and industry and the overall strengthening of the Canadian economy.<sup>107</sup> The lumber industry had, somewhat suprisingly given its reliance upon the export trade, benefited from that policy, a policy which has been described aptly by one modern writer as "protective expansionism".<sup>108</sup> As the years went by, however, it became clear that there were adverse social costs which flowed from this pattern of growth, including injury to the environment. As this appreciation grew the view developed in official circles that just as it had been a primary responsibility of government to stimulate industrial growth, so it was now had a responsibility to temper the adverse effects of industrialization. Furthermore, unlike the earlier period when the resources and vision of the federal government lagged behind its rhetoric, it now possessed the manpower and expertise to meet the mill owners on its own terms. In particular, as we shall see, the senior ranks of the federal civil service were beginning to attract top flight professionals from a variety of disciplines, whose view of the public interest transcended the sectional interests of a particular industry and who had a much clearer sense than their predecessors of the crucial role of the government in developing and applying social policy.

That the Federal Government still felt some commitment to the goal of progressively curbing the excesses of the lumber industry is reflected in the re-enactment and amendment of the *Navigable Waters Protection Act* in 1886.<sup>109</sup> This new Act significantly extended the ambit of the prohibition against the dumping of mill wastes by industry beyond navigable waterways *per se* to tributaries and waters leading into navigable rivers and streams.<sup>110</sup> The provision was designed to prevent refuse from non-navigable sources accumulating downstream in navigable sections of waterways.

This change in the law was by itself of little consequence in actually advancing the environmental cause. Far more significant was the emerg-

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<sup>106</sup>*Ibid.*, 495.

<sup>107</sup>See P.B. Waite, *Canada 1874-1896—Arduous Destiny*, 1971, 74-83; O.J. Firestone, *Canada's Economic Development 1867-1953*, 1958, 276-80.

<sup>108</sup>H.G. Aitken, "Defensive Expansionism: The State of Economic Growth in Canada" in H.G. Aitken, ed. *The State and Economic Growth*, 1959, 79, 97-103.

<sup>109</sup>S.C. 1886, c. 36.

<sup>110</sup>*Ibid.*, s. 7.

ence in the Canadian Senate of a group of senators dedicated to taking up the banner of environmental protection, and determined to remove the preferential treatment accorded to the Ottawa lumber barons and their cohorts in several regions of New Brunswick, Quebec and western Ontario. In this, the Senate was reflecting increasing public criticism of the lumber industry. Both in the Ottawa area and in the neighborhood of Peterborough and the Trent River system, voices were being raised over the increasing impediments to navigation caused by accumulations of sawdust and, in the latter region, over the ruination of fisheries.<sup>111</sup> Indeed, the situation in the Otonabee and Trent River systems was so bad that the Town of Peterborough was moved to petition the Governor General to request urgent remedial action.<sup>112</sup>

The leadership of the movement in the Senate was assumed by the Honourable Francis Clemow. Clemow, a Tory, was a resident of Ottawa who had sat on city council for a short spell and enjoyed a long association with the city's Board of Water Commissioners, serving as Chairman.<sup>113</sup> On being appointed to the Senate in 1885 he soon gave vent to his frustration at the progressive despoilation of his city's major natural resource and amenity by launching a campaign for repeal of the exemptions in the navigable rivers and streams legislation.<sup>114</sup>

The first political success for the environmental group in the Senate was the establishment in 1888 of a Select Committee of that body "to enquire into and report upon the extent and the effect upon the Ottawa River of the deposit therein of sawdust and other refuse."<sup>115</sup> The Committee conducted extensive hearings prior to making its report. In addition to the indefatigable Mr. Ratté, it heard from a succession of individuals of the river's growing deterioration through sawdust emissions. This group included officials of both the Federal and city governments, representatives of the forwarding trade, riparian owners, a lockmaster and a boat captain. Individually and collectively they attested to the adverse effect of accumulation of sawdust and other mill waste on navigation, the detriment to fishing, the adverse sensory and explosive effects of rotting sawdust and potential health hazards. Several witnesses with experience of saw mills in other parts of the country, especially northern and western Ontario and New Brunswick, were able to comment on alternative and non-deleterious methods of mill waste disposal successfully practiced elsewhere.<sup>116</sup> John Stewart, a mining engineer, provided data on a series of by-products of

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<sup>111</sup>Sessional Papers, 1890, No. 65, Return to Address of the Senate, March 7, 1890, 2-5.

<sup>112</sup>*Ibid.*, 5-7.

<sup>113</sup>*Canadian Parliamentary Guide*, 1887, 34-5.

<sup>114</sup>See *Senates Debates*, 1888, 560-1, (May 7).

<sup>115</sup>*Ibid.*, 560-2, (May 7); 595-7, (May 8). *Report of the Select Committee of the Senate appointed to enquire into a Report upon the Extent and Effect upon the Ottawa River of the Deposit therein of Sawdust and Other Refuse*, 1888, 63-5 (Evidence of Hon. Mr. Ogilvie); 71-72 (Evidence of Hon. Mr. Glazier).

sawdust which could be used to power other forms of industry, in particular, iron smelting.<sup>117</sup> The evidence of a fellow senator, the Honourable Mr. Dever, pointed to the success of legal regulation of sawmill owners in Saint John, New Brunswick.<sup>118</sup> The discharge of sawdust into the St. John River and harbour had been prohibited with the consequence that all the mills in the area had been forced to find other more satisfactory means of disposing of it. The result was a less polluted, less obstructed waterway.

Perhaps the most telling evidence brought before the Committee was that of Henry Gray, the Assistant Chief Engineer of the Federal Department of Public Works.<sup>119</sup> Gray had earlier that year carried out an extensive on-site survey of the River from the Chaudière to Grenville, taking extensive cross sections and borings on a systematic basis along the waterway.<sup>120</sup> The report, a serious scientific document, and his evidence, which was based on it, recorded clearly the growth of obstructions in the River through the admixture of sand and sawdust and the accumulations caused by the ground up slabs, resulting in decreased depth levels, as well as the danger to personal welfare caused by the decomposition of masses of inert sawdust and its explosive characteristics. He was able to make quite precise estimates of the effect on navigation because he was able to compare his data with earlier samplings taken by the Department. Having noted the sad state of many of the bays along the banks, he concluded:

That millions of sawdust and mill refuse fill the bays and creeks and cover the shores of the Ottawa River, gradually encroaching upon the channel, and in many places obstructing navigation, cannot be denied.<sup>121</sup>

The lumbermen who appeared, including both E.H. Bronson, now an Ontario M.P.P., and J.H. Booth, stonewalled in what seems to have been a carefully orchestrated performance.<sup>122</sup> They found no convincing evidence that the sawdust obstructed navigation. Their admittedly cursory examination suggested that sand and silt were the causes of changes in navigation channels in the river, not sawdust. The latter, they claimed, was carried away by the current. Moreover, if anyone was to suffer from impediments to navigation it was them, as they constituted by far the largest users of river borne traffic. They had not received any complaints from their navigators. In addition, they trotted out the old arguments on their certain ruination if the law was applied vigorously to their operations, a consequence which they would surely avoid by moving closer to Montreal or into the United States. Even if they did attempt to burn their refuse,

<sup>117</sup>*Ibid.*, 47-51.

<sup>118</sup>*Ibid.*, 51-52.

<sup>119</sup>*Ibid.*, 6-13.

<sup>120</sup>Sessional Papers, 1890, No. 65, Return to Address of the Senate, March 7, 1890, 7-13.

<sup>121</sup>*Ibid.*, 12.

<sup>122</sup>*Report of the Senate Committee on Sawdust, op. cit.*, 53-58 (Evidence of E.H. Bronson); 58-63 (Evidence of J.H. Booth).

the result would be greatly increased fire hazards and astronomical insurance rates.

Having digested this plethora of evidence, some of it contradictory, the Committee reported, making it absolutely clear who it believed

Your Committee are of the opinion that it is established beyond question that extensive deposits of sawdust and other mill refuse exist in the Ottawa River, from the Chaudière to the head of the Grenville Canal, and that these constitute a very serious and steadily increasing interference with public rights of navigation, which has already become seriously obstructed, and must, at no distant period, if immediate measures are not taken to arrest the evil, become irretrievably destroyed.<sup>123</sup>

The Committee's report went on to highlight the other adverse consequences of the sawdust: the interference with riparian interests; and the menace to health. Moreover, reference was made to ways and means of economically utilizing sawdust as practised elsewhere in the Dominion and in the United States.<sup>124</sup>

The Committee had no doubts or reservations over what should be done. The proclamation exempting the Ottawa and the Gatineau from the *Navigable Waters Protection Act* should be rescinded "as soon as practicable, having regard to the large and important interests involved in a business of such extent and public importance as is the lumber trade, and that thereafter, the provisions of the [Act] should in the public interest, be strictly enforced."<sup>125</sup>

The unequivocal character of the Report and its advice was received with concern in the councils of the lumbermen. They were now faced with a document which evinced no doubts about the adverse environmental effects of their operations and which was the product of an open and extensive parliamentary enquiry. Their response was to appeal to "scientific" evidence of their own. They retained the services of the celebrated engineer, Sir Sandford Fleming, to investigate and report on the condition of the Ottawa. In a report<sup>126</sup> which was largely the work of his son, and singularly lacking in specifics, he claimed that he had found no evidence of serious impediments to navigation caused by sawdust, except at the confluence of the Rideau and Ottawa. The latter minor problem could be resolved by a modest amount of dredging. Any damage to riparian owners was more than offset by the benefits derived from the downriver communities by collecting the mill waste for firewood. In language which admitted of no doubt he concluded:

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<sup>123</sup>*Ibid.*, iii.

<sup>124</sup>*Ibid.*, iv.

<sup>125</sup>*Loc. cit.*

<sup>126</sup>Sessional Papers, 1890, No. 65, Return to Address of the Senate, March 7, 1890, 13-19.

With regard to the future it is conclusively established that there is no probability of the navigation between the city of Ottawa and Grenville being irretrievably destroyed or seriously obstructed from the cause assigned for centuries to come.<sup>127</sup>

The lumbermen now had their scientific apologist. However, any thoughts they might have had that this would buy them peace were quickly dashed.

The concern which had been voiced in the Senate Committee was apparent elsewhere in the political structure. The officials of the Department of Marine and Fisheries were showing increasing signs of frustration and impatience over the dilatory and uncooperative attitudes of mill owners. The most immediate field of conflict was the Otonabee River and the operations of several saw mills in the area which were causing sawdust to be discharged continually into that waterway.<sup>128</sup> This had seriously impeded navigation in the vicinity of Peterborough, as well as depleting local fisheries. An agreement forged between the Department and the mill owners in 1886, by which only sawdust actually falling from the saws would be allowed into the water, had been ignored by some mill owners leading to new calls from local residents for vigorous enforcement of the law. Successful prosecutions were actually launched by the Department, although the fines were unpaid. In 1889 a senior official of the Department, Samuel Wilmot, was dispatched to Peterborough to investigate. He confirmed the existence of major problems with restricted navigation and depletion of fish stocks, and advocated strict enforcement of the law, advising specifically against any remission of the fines levied.<sup>129</sup> As a result of this report, prosecutions were then instituted day-by-day, and heavy fines imposed.<sup>130</sup>

The saga is instructive because it shows that by the late 1880's the Department was ready to prosecute recalcitrant mill owners on river systems not comprehended by exempting proclamations. Worth recording, too, is the fact that this initiative had the blessing of the Minister. The Report of the Department for 1890 delivered by The Honourable Charles Hibbert Tupper includes a lengthy passage on the pollution of streams.<sup>131</sup> This outlines very clearly the serious nature of the problem of sawdust pollution and the lack of cooperation by the mill owners. After tracing the history of the attempts at regulation, and the succession of reports on the matter, the Minister highlighted the "baneful effects" of the pollution, and recited the details of the Otonabee affair with obvious satisfaction at the resolute action taken by his department to protect the public interest.<sup>132</sup>

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<sup>127</sup>*Ibid.*, 41.

<sup>128</sup>Sessional Papers, 1890, No. 65, Return to Address of the Senate, March 7, 1890, 2-5.

<sup>129</sup>Sessional Papers, 1890, No. 17, *Special Report on Sawdust*, 269-72.

<sup>130</sup>Sessional Papers, 1890, No. 17, *Annual Report of Minister of Marine & Fisheries*, xxxviii.

<sup>131</sup>*Ibid.*, xxxiii-xxxviii.

<sup>132</sup>*Ibid.*, xxxvii-xxxviii.

Tupper evinced similar concern with regard to the state of the St. John River in New Brunswick and the lack of any regulatory regime for controlling the discharge of mill waste into the upper reaches of that river system in the State of Maine. This problem had been raised in a Committee of the Privy Council in 1889 as requiring urgent attention.<sup>133</sup> Tupper responded positively to the suggestion in a letter to the Governor General, quoting extensively from his earlier report.<sup>134</sup> He favoured inviting the authorities in Maine to adopt similar legislation to that found in Canada and recommended that the Secretary of State for the Colonies be requested to make the necessary overtures to the legislative authorities in that state.<sup>135</sup>

That the Department of Marine and Fisheries was more ready to assert itself on sawdust pollution is shown also in its attempts to make an inventory of the procedures of mill owners in disposing of sawdust throughout the Dominion, as well as to collect harder data on the various systems of disposal actually in use which avoided discharge into waterways. In 1891 a circular was sent out to the local officers of the Department "with a view to ascertaining whether any and what measures were adopted by the mill owners to carry out provisions of the law, and if any machinery was provided for the economical disposal of the sawdust and mill refuse."<sup>136</sup> The returns from the various local inspectors and overseers were collected together and attached as an appendix to the report of the Department for that year.<sup>137</sup>

The reports reveal a wide range of practices from compliance through sloppy procedures to outright contempt for the legislation. By and large, the steam mills consumed their waste by burning. Practice amongst the owners of water mills varied between burning, land fill or the transformation into by-products on the one hand, and open or secret discharge into the water on the other. Most of the officials pointed to the deleterious effect of sawdust on both navigation and fisheries. One or two indicated that by resolute action in negotiating with mill owners or by prosecution they had been able to work changes in the practice of local sawmills. As Overseer Webber of Ontario reported:-

Since prosecution of mill owners in Severn River two years ago, millers . . . have complied with law. Besides sawdust is in great demand for road building and in the extensive ice business carried on there by Americans.<sup>138</sup>

Three correspondents included with their reports drawings of disposal systems being used in mills in their regions which had obviated the sawdust problem together with details of operation and cost.<sup>139</sup>

<sup>133</sup>Sessional Papers, 1891, No. 43c, Return to Address of the Senate, December 16, 1890, 1.

<sup>134</sup>*Ibid.*, 1-5.

<sup>135</sup>*Ibid.*, 5.

<sup>136</sup>Sessional Papers, 1891, No. 8, *Memorandum on Pollution of Streams and Contrivances adopted for the Disposal of Sawdust and Mill Refuse*, 78.

<sup>137</sup>*Ibid.*, 78-84.

<sup>138</sup>*Ibid.*, 82.

<sup>139</sup>*Ibid.*, reports of Inspector Hockin (Nova Scotia), 79-80; Overseer Cochrane (Ontario) 80; Inspector Kinney (Nova Scotia) 71-2.

Although the dossier developed did not produce any immediate action within the Department, it did provide a useful synopsis of sawdust pollution as a national problem, as well as prospective ammunition in further skirmishes with those mill owners who refused to accept that there was a sawdust problem, or who argued that if there was one, economics prevented them from responding.

Despite the very strong recommendations of the Senate Select Committee that action be taken to reverse the exemptions in force in the Ottawa Valley, the Conservative Government of the day proved to be less than resolute about pursuing the matter. The Minister of Marine and Fisheries, Tupper, did introduce a Bill to amend the *Navigable Waters Protection Act* in 1890 which would have embodied the Committee's recommendations.<sup>140</sup> However, this Act was subsequently withdrawn, and thereafter the Government took the line that dramatic amendment of this nature was premature, because it would be unfair to the millowners who were likely to be put to immediate great expense and inconvenience. It is not difficult to see here the sinister hand of the lumber lobby at work behind the scenes, cajoling and threatening the government with all sorts of dire consequences if their preferred status was removed.

The government's lack of resolution was not shared by the environmental group in the Senate. Clemow, in particular, upset by the withdrawal of the 1890 Act, introduced his own bill in 1891 to amend the *Navigable Waters Protection Act* and thereby remove the exemptions.<sup>141</sup> This move led to vigorous debate in the Upper House. Clemow rehearsed the history of the problem and the arguments in favour of resolute action against the mill owners.<sup>142</sup> He revealed also the rather alarming information that a child had recently been drowned in the River because of the refuse and that a group of 300 children had narrowly missed death in the river when an explosion had taken place shortly after the boat on which they were being carried had passed. He had no doubt that the lumbermen were stalling. Others of the environmentalist persuasion pointed to the legislative double standard whereby the Ottawa lumber barons were exempt from prosecution, while smaller mill owners elsewhere, especially in New Brunswick and Nova Scotia, were denied that protection and prosecuted.<sup>143</sup> Mr. Poirier of New Brunswick thought it paradoxical that the government should be spending large amounts of money on fish breeding and hatcheries when it was countenancing the pollution of the waters which would receive the fish produced.<sup>144</sup> Criticism was levelled against the Department of Marine and Fisheries for not being sufficiently vigilant in protecting

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<sup>140</sup>Journal of House of Commons, 1890, 212-3.

<sup>141</sup>Senate Debates, 1891, 128 (June 25).

<sup>142</sup>*Ibid.*, 128-9.

<sup>143</sup>*Ibid.*, 128 (Hon. Mr. Kaulbach); 132-3 (Hon. Mr. Snowball.)

<sup>144</sup>*Ibid.*, 129-30.

fisheries,<sup>145</sup> and general disenchantment was voiced with the foot dragging of the mill owners and their exercise of political clout.

During this period the Prime Minister, in the person of John Abbott, was a member of the Senate. Abbott, who from his comments was ill-informed about the problem of sawdust, the legislation applying to it, and the exemptions granted, appealed to Clemow to stay his hand to allow the mill owners necessary breathing space.<sup>146</sup> If this was done, the Prime Minister stated, the Government would support an amending measure the following year. Clemow, clearly anxious not to embarrass the Government and satisfied with Abbot's undertaking, agreed to wait another year before pressing the legislation further.<sup>147</sup>

Despite this undertaking by Abbot, the legislation was not reviewed the following year. Indeed, it was 1894 before legislative activity on sawdust picked up again. Interestingly, it surfaced this time not in the context of the *Navigable Waters Protection Act*, which had hitherto been the primary focus of the debate on sawdust, but as part of an omnibus bill amending the *Fisheries Act*. It will be remembered that that legislation included a prohibition against the discharge of mill waste including sawdust "into any stream frequented by fish", but was subject to the same power of exemption of certain waterways by the Minister. The amendments to the *Fisheries Act* proposed by the Government, in fact, sought to extend the exemption system already in place.<sup>148</sup> This was enough to make Senator Clemow, who had previously shown remarkable restraint, see red. He proposed an amendment to clause 6 of the Bill which removed the exempting provision and substituted for it a new proviso which read:

Provided always that the provision of this section shall not apply until, on and after the first day of May, 1895, to the saw mill owners and employees of any saw mill situated on any stream wholly or partially exempt from the operation of the said subsection 2 of section 15 hereby repealed.<sup>149</sup>

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<sup>145</sup>*Ibid.*, 131 (Hon. Mr. McClelan).

<sup>146</sup>*Ibid.*, 128.

<sup>147</sup>*Ibid.*, 128-9.

<sup>148</sup>Interestingly the Bill (No. 1945, 4th Sess, 7th Parl., 57 Vict., 1894) as introduced into the Commons stated a prohibition against the dumping of mill rubbish or sawdust and the penalties to be exacted for a first offence and subsequent offences. No mention was made of exemptions. As the pre-existing section (s. 15(2), 1886, 49 Vict. c. 95) was repealed by the new clause (6) it is clear that the intention was to drop the practice of exemption. The reports of debate in the Commons reveal that the Minister of Marine and Fisheries, Sir Charles Hibbert Tupper, thought that existing exemptions were preserved. In answer to a question about the Ottawa River he asserted that the River was exempt by Order-in-Council, see House of Commons Debates, 1894, Vol. 2, 4566 (June 19).

The Bill as originally introduced was given third reading in the Commons with clause 6 unamended and sent to the Senate. Although the original version of the Bill is the only one extant, it seems clear that prior to its introduction into the Senate a *proviso* was added to clause 6 dealing with exemptions. The Senate Journal for July 16, 1894, 280 shows that an amendment 65 clause 6 introduced during debate (see Clemow's amendment below) was approved, and replaced a number of lines in that clause which do not appear in the original Bill. As Senator Clemow was obviously exercised by the failure of the Government to take resolute action against the Ottawa lumbermen, it may be concluded that the revised version of clause 6 contained a segment preserving the power of exemption, maintaining existing exemptions, or excluding them for a significant period of time.

<sup>149</sup>Senate Debates, 1894, 720 (July 13).

This proviso would, he felt, give ample time to the mill owners to make alternative arrangements for disposing of the sawdust, and ensure a speedy end to the problem of environmental abuse. The amendment drew wide support from his colleagues on both sides of the House. Again, the preferred treatment of the Ottawa lumber barons was decried. Mr. Poirier, in particular, deprecated the special treatment awarded to these corporate "paupers" at a time when fishermen were facing harsh penalties for their errancy in using illegal nets.<sup>150</sup>

The official government spokesman, Mr. Angers, the Minister of Agriculture, was unmoved by these remonstrations, arguing in terms reminiscent of the mill owners that the public interest was not adversely affected by the sawdust, that the lumber industry was tremendously beneficial to the nation and that there were no fish in the Ottawa to protect.<sup>151</sup> He requested that the original clause be allowed to stand to permit the Government to study the matter further.

Although Clemow was inclined to bend a little,<sup>152</sup> his doughty band of environmentalists refused to be deflected from their purpose. Mr. Kaulbach was particularly trenchant in his criticism of the lumbermen and their irresponsible use of power.<sup>153</sup> Mr. Scott, for his part, excoriated the Government for its spinelessness in the face of opposition from the lumbering interests and its neglect of its public duty.<sup>154</sup> In the result, the Clemow amendment was pressed and the clause as amended was adopted.<sup>155</sup>

## 7. Sawdust Pollution and the Development of the Conditions for a Legislative Solution, 1894—1902

The passage of the *Fisheries Act Amendment Act* of 1894 represented a major victory for the environmental cause. However, the fruits of victory proved to be difficult to secure. Faced with a blanket prohibition of their practices in discharging sawdust into the nation's waterways, the representatives of the industry, instead of seeking ways of complying with it, were to mount a spirited campaign to have the old exemption provision resurrected and extended or at least to have the grace period in the 1894 Act lengthened. Although the lumber barons of the Ottawa Valley were preeminent in this campaign, their sentiments were echoed by others elsewhere in the country, especially in New Brunswick.

Although, as we shall see, the millowners were successful in delaying the application of the prohibition, they were to find their adversaries, with

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<sup>150</sup>*Ibid.*, 721-2.

<sup>151</sup>Senate Debates, 1894, 723-4, 729-30 (July 16).

<sup>152</sup>*Ibid.*, 725.

<sup>153</sup>*Ibid.*, 730-1.

<sup>154</sup>*Ibid.*, 731.

<sup>155</sup>*Ibid.*, 735.

the notable exception of most of the politicians, more confident, assertive and attuned to the public interest than previously. Perhaps the most significant factor in this strengthening of resolve by the opposition was the presence within the Department of Marine and Fisheries of a new breed of senior civil servant. We have already seen the rather ambivalent stand on sawdust taken by the early generation of public officials, exemplified by Merrill and Mather, who had previous or continuing associations with the lumber industry.<sup>156</sup> As the National Policy of Sir John A. McDonald was elaborated and implemented all ranks of the Civil Service grew significantly in response to the increase in the volume of regulatory legislation. The greater involvement of the state in the economic and social life of a country facing increasingly complex problems meant, too, a need for experts in a variety of fields: economics, science, technology, and public health to name a few.<sup>157</sup> As the century drew to a close, growing numbers of professionals were attracted into the senior ranks of the Service: not only engineers, but also scientists, doctors, veterinarians and others. Of their functions Gillis has said:

A very few, particularly in the Department of Agriculture, were involved in pure research, but most performed investigatory and regulatory work where their knowledge was applied in a practical way to inspect various industrial activities and products, and to evaluate a lot of projects, both public and private.<sup>158</sup>

The most notable representative of this "new wave" in the Department of Marine and Fisheries was Edward Prince. Prince, a graduate of St. Andrews, Edinburgh and Cambridge, was a specialist in fish food supply and spawning habits.<sup>159</sup> He joined the Department in 1892 and was to develop a very distinguished record as a marine biologist and representative of Canada on international boards and committees dealing with fisheries. In the Department he took major responsibility for assessing the effect of pollution, including sawdust, on fish. Prince's work, exemplified by his scientific papers, is the quintessence of careful scientific inquiry and exposition.<sup>160</sup> As a scientist he decried the bald generalizations often bandied about in the sawdust debate. Instead he utilized research carried out in a number of countries on the impact of pollution on fish as a basis for focusing on what were provable facts. This allowed him to identify the true damage done by sawdust to fisheries, the smothering of the spawning beds, and the decay of aquatic plant life.<sup>161</sup>

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<sup>156</sup>*Supra.*

<sup>157</sup>P. Gillis, "Early Federal Regulatory Records as Potential Sources for the History of Science and Technology in Canada: The Case of the Sawdust Pollution Files, 1866-1902" in R.A. Jarrell & N.R. Ball eds., *Science, Technology and Canadian History*, 1980, 60, 61.

<sup>158</sup>*Loc. cit.*

<sup>159</sup>*Ibid.*, 67.

<sup>160</sup>As an example of Prince's work see Sessional Papers, 1900, No. 11a, lii-lxix, "Water Pollutions as Affecting Fisheries".

<sup>161</sup>*Ibid.*, lv, lvi.

With this thoroughly capable and respected professional scientist at the centre of activity on sawdust pollution in the Department, it was ultimately to prove difficult for the government to fudge convincingly on the issue of whether a problem of environmental abuse existed. Moreover, the millowners were hard put to make their self-serving generalizations stick in the face of such well-prepared and conclusive evidence.

That Prince was convinced that things had reached a serious point with sawdust pollution is evidenced by a memo of July 7th, 1894, occasioned by the destruction by fire of J.R. Booth's mill in the Chaudière and the opportunity which Prince felt the accident produced for a new start on sawdust prevention.

The fouling of the water with most hurtful results to fish life, the destruction of aquatic vegetation and minute organisms, the filling up of spawning areas by banks of decaying sawdust are all important—apart from the injuries to riparian owners which the Chancellor of Ontario declared were contrary to law, the dangers to life from explosions of decaying sawdust and the polluting of the air which medical testimony can demonstrate to be hurtful to the health of the city. It has been shown that navigation is injured by deposits of sawdust as at Bellville, Napanee, where the river channel was almost choked up, and other places.<sup>162</sup>

Prince was supported in his concern by other Department officials. Captain Wakeham, a long-serving Fisheries inspection officer, who had had many opportunities to see the effect of sawdust in the rivers flowing into the Gulf of the St. Lawrence, had no doubts either about the seriousness of the problem or the difficulties in meeting the arguments of the lumber interests. In his view, evidence from both fisheries experts and engineers was urgently needed to counteract the insidious Fleming report. "The influences" he said "in favour of the *status quo* are so strongly that all the evidence we can possibly get will be required to make a change possible."<sup>163</sup>

In fact, the Department had already collected and was continuing to collect useful data on the adverse effects of sawdust. The Grey report on the state of the Ottawa River was still considered to be the definitive statement on the menace to navigation on that waterway. Moreover, local officers throughout the country were continuing to report on the state of the rivers and streams in their areas and the specific impact of sawdust. In the summer of 1890 a report had been published which provided helpful insights into the effect of sawdust on water quality. The report, commissioned by the Department of Marine and Fisheries, was carried out by Dr. W.A. McGill, Assistant Analyst for the Department of Inland Revenue, and was designed to test the water of the Ottawa River to determine whether it would propagate moribund bacteria.<sup>164</sup> McGill, while concluding that the water was not

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<sup>162</sup>Public Archives of Canada, Department of Fisheries R.G. 23, file 1669, pt. 1, 18-19, memo by E.E. Prince, July 7, 1894.

<sup>163</sup>*Ibid.*, 20-21 memo on Ottawa River Sawdust Pollution, July 11, 1894.

<sup>164</sup>P.A.C., Department of Fisheries, R.G. 23 file 1669, pt. 2.

dangerous, was of the opinion that it was so impregnated with organic matter that it would become the "nucleus" for the propagation of morbid bacteria. Subsequent tests performed by scientists for the Department were to demonstrate that the City of Ottawa boasted one of the worst supplies of drinking water in the country, largely caused by raw sewage but not improved by the sawdust.<sup>165</sup>

With the new Fisheries legislation in place the Department lost no time in communicating its purpose to the mill owners. On August 3rd, 1894 a circular was sent to the mill owners who had been enjoying the privilege of exemption drawing their attention to the enactment and indicating that they should communicate their intentions as to compliance.<sup>166</sup> It was made clear that after May 1, 1895, any exemption would have to flow from a special Act of Parliament. No longer would it be possible for the Minister to grant an exemption as a matter of discretion.<sup>167</sup> At the same time a special investigator, a Captain Veith, was requested to examine the Ottawa River and the mills to determine the degree of discharge and its effects. There being no immediate response to the Departmental missive to the industry, two more letters were sent, pointing out the progressively tenuous position of the mill owners, if replies were not forthcoming.<sup>168</sup>

This time a response was received in the form of a lengthy letter signed by all the major lumber interests in Ottawa which were exempt from the legislation and directed to the Minister, Sir Charles Hibbert Tupper.<sup>169</sup> Predictably Sir Sandford Fleming and his 1889 report were trotted out as the sole repository of wisdom on the state of navigation on the Ottawa. The adverse effect of the sawdust on the fisheries was denied, the depletion of fishstock being the result of dams and the lack of fishways. Restock the river, provide fishways and all would be well, said the letter. In any event, the value of waste lumber in the river to the inhabitants of the region was far greater than that of the fish which could be caught in its waters. The letter went on to assert that the sawdust had produced no adverse effect on water quality. By a selective airing of various reports on the River's water by scientific experts, sewage was tagged as the sole villain. Alleged injurious effects on public health were discussed on the basis of lack of a perceived problem in several American mill communities. Finally, while admitting that sawdust did not enhance the landscape, the letter pointed to the tremendous value of the lumber industry:

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<sup>165</sup>*Loc. cit.*

<sup>166</sup>P.A.C., Dept. of Fisheries, R.G. 23, file 1669, pt. 1, 29.

<sup>167</sup>*Ibid.*, 66-68, letter from Acting Deputy Minister Hardie to Veith, Sept. 19, 1894.

<sup>168</sup>*Ibid.*, 44-47, letters of Sept. 19 and Sept. 22, 1894 to lumbermen of Ottawa Valley.

<sup>169</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2, 23-37, letter from Messrs Bronson & Weston; Buell Hurdman; David MacLaren; J.R. Booth; Hawkesbury Lumber Co.; R. Conroy; R. Bromley; G.L. Parker; Gilmour & Hughson, dated Sept. 22nd, 1894. See also 38-43 letter in support from W.C. Edwards, Sept. 24, 1894.

[I]t must be remembered that this is a utilitarian age and that the interests of any important industry, the success of which affects the well being of so many people, are unavoidably held to be paramount to the gratification of more aesthetic taste, satisfactory and desirable as they may be under proper conditions.<sup>170</sup>

In the same breath, however, as emphasizing the cardinal importance to the economy of the industry, the lumber barons pointed to its decline because of the exhaustion of the stands with a resulting decrease in sawdust. This they saw as justifying the extension of the *status quo*. The problem would presumably go away by attribution.

In conclusion the letter rehearsed the traditional dire consequences if the legislation were enforced, and added a new twist by pointing to the protection offered by the 1885 Ontario legislation against "vexatious suits". In words which were presumably designed to leave the Federal Government conscience-stricken the letter ended:

Surely the trade and the thousands of men employed directly and indirectly in it have a right to expect the same measure of fair and reasonable treatment from the Government of Canada.<sup>171</sup>

Veith's examination was to provoke a very different picture of the state of the river. He visited all the mills on the Ottawa river, noting those which did and did not discharge mill waste into the river. After travelling the River from the Chaudière to Grenville with Captain Bowie he commented:

The depositing of the mill offal in the water has been continued many years and has left the Ottawa in a deplorable condition. Banks of accumulated sawdust, and other mill rubbish are quite visible in various parts of the river, especially in the bays and in the channels along the island: at one time navigable.<sup>172</sup>

The consequence of continued discharge would be the progressive choking of navigable channels, with further impediment of navigation. His conclusion was that "immediate and effectual remedial measures are absolutely necessary", otherwise the ultimate destruction of the River was only a matter of time.<sup>173</sup> The new legislation should be enforced.

The battle lines having been thus drawn, the Department was inundated with communications from the various lumbering regions of the country pleading with the Government not to remove the exemptions and, if possible, to extend them. Needless to say, a large proportion of these letters came from mill proprietors, both large and small, and sometimes by general petition, pointing to the economic ruin facing them and their communities if the legislation were enforced. Usually too, the letters referred

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<sup>170</sup>*Ibid.*, p. 10 of joint letter.

<sup>171</sup>*Ibid.*, pp. 13-4 of joint letter.

<sup>172</sup>*Ibid.*, Capt. Veith's Report on state of Ottawa River, p. 23.

<sup>173</sup>*Ibid.*, Report, pp. 34-5.

to the absence of any fishery in the river within living memory or the relative unimportance of the fishing industry in the region. An example is the joint petition of the lumber men of Nova Scotia and New Brunswick to the Governor General, the Senate and House.<sup>174</sup>

The petition of the undersigned Merchants and Operators engaged in the lumber business in the Provinces of Nova Scotia and New Brunswick,

HUMBLY SHEWETH:

That your petitioners are extensively engaged in Manufacture, Sale and Shipping of Lumber, and have large amounts of capital invested in that industry, giving employment to a very considerable number of the inhabitants of the said Provinces, and that the export of Lumber is one of the most important industries pursued in said Provinces.

That by the provision of an Act passed by your Honourable body entitled 'an Act further to amend The Fisheries Act,' and passed at the last session of your Honourable body, the sixth section of that Act, if enforced, will seriously affect, if not in many instances entirely destroy, the business and operations of your petitioners and will practically render valueless the investments of your petitioners in these operations, owing to the inability of your petitioners to comply with the provisions of said Act, as their mills are so located that it is almost impossible to prevent the sawdust from entering the streams upon which they are situated except at an enormous expenditure of capital without any corresponding advantage to the fishery interests of these provinces.

Your petitioners therefore humbly pray that your Honourable body will be pleased to enact such remedial legislation as will authorize the Minister of Marine and Fisheries to grant exceptions to such of your petitioners as in the judgment of his Department will not seriously affect the fishing industries of these provinces or impede navigation.

The letters and petitions were not, however, confined to the mill owners. Petitions were received from the employees of mills, pointing to the disastrous effects on their personal and family lives of mill closure which application of the legislation would surely force.<sup>175</sup> The municipal councils of mill towns passed resolutions deprecating the changes in the legislation and warning of the "death" of their communities, which were duly transmitted to the Department by civic officials.<sup>176</sup> Members of Parliament in constituencies in which the lumber industry was strong were heard from, as well as those individuals and groups who benefited economically from the detritus of the lumber mills.<sup>177</sup> Commercial interest groups, such as the Ottawa Board of Trade, wrote to voice their concern about the removal of exemptions and the adverse effect on the local economy.<sup>178</sup>

<sup>174</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2.

<sup>175</sup>*Ibid.*, 57-8, petition from Inhabitants and Work people of Hawkesbury, Nov. 9, 1894.

<sup>176</sup>*Ibid.*, 62-3, 59-60, copy of resolution of Nov. 6, 1894 of Council of Hawkesbury to Minister of Marine and Fisheries Tupper and letter from Reeve and Township Clerk of East Hawkesbury to Minister, Dec. 15, 1894.

<sup>177</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 1, 110, letter from Josiah Wood M.P., Sackville, N.B. to Minister of Marine and Fisheries Tupper, Oct. 20th, 1894, and letter from the Widow Guindon, Papineauville, Feb. 7th, 1895.

<sup>178</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 1, letter from Ottawa Board of Trade to Minister of Marine and Fisheries Tupper, Feb. 26, 1895. See also report in Ottawa Evening Journal, November 7th, 1894 for debate at Board of Trade between E.M. Bronson M.P.P. and Senator Clemow.

Although the correspondence opposing the new legislation was heavy, the communications to the government were not exclusively antithetical to the Act. Earlier in 1894 the redoubtable Mr. Rattée and 720 supporters had petitioned the Privy Council complaining of the deteriorating state of the Ottawa River and urging the repeal of the exemption provisions in both the *Fisheries* and the *Navigable Waters Protections Acts*.<sup>179</sup> With the amendments to the *Fisheries Act* support was forthcoming from a variety of sources. Certain sections of the press clearly approved of the tough new stance taken by the Government. In the Maritimes, the *Summerside Journal* commented:

The determination of the Minister of Marine and Fisheries to strictly enforce the law which prohibits the throwing of sawdust into rivers and streams, must meet with general approbation, and is especially pleasing to those who wish to see the river fisheries of the Maritime Provinces saved from destruction. There are many important fishing streams in these provinces which are being greatly spoiled by the sawdust nuisance, which should be abated. There are many other streams which were formerly the haunts of fine fish, but which now, owing to the nuisance complained of, contain hardly a fish worth wetting a line for.<sup>180</sup>

The publisher of the *Sherbrooke Gazette*, George Bradford, commented by letter on the detriment to fishing in the St. Francis River caused by the local mills:

The St. Francis River used to swarm with good fish, such as trout, black bass, perch, pickerel and shad . . . and salmon in great numbers came up to its headwaters to spawn, but since the sawmills at Brompton Falls went into operation the stream has become depopulated of its finny tribes and we might fish for days or weeks without getting one of the above named fish.<sup>181</sup>

Letters were also received from fishing and shipping interests complaining of the adverse effects of the sawdust on their business.<sup>182</sup> Although the lumbermen typically presented a solid front of opposition to the legislation, there were occasional critics of the industry even within its own ranks. H.G. Cameron, who owned the Queen Street Mills in Ottawa, wrote to Sir Charles H. Tupper, the Minister, pointing out that he did not intend to seek an exemption and expressing an entire lack of sympathy with his fellow lumbermen. It was his strong feeling that the Act should be vigorously enforced.<sup>183</sup>

The spate of correspondence adverse to the *Fisheries Amendment Act* and the requests for the extension and further grants of exemptions ob-

<sup>179</sup>*Ibid.*, 13-15, Petition dated May 18th, 1894.

<sup>180</sup>*Summerside Journal*, Wednesday, Oct. 24, 1894.

<sup>181</sup>P.A.C. Dept. of Fisheries R.G. 23, file 1669, pt. 2, 84, letter dated Dec. 5, 1894.

<sup>182</sup>P.A.C., Dept. of Fisheries, R.G. 23, file 1669, pt. 1, letter of W. Routledge of Sheet Harbour N.S. to Minister of Marine and Fisheries Tupper, Nov. 23, 1894 and letter of Theodore Conrad of Sheet Harbour to the Minister, Feb. 16, 1895. Both were schooner owners and besides accusing the mill owners of causing impediments to navigation, charged them with concocting spurious petitions from the neighbourhood.

<sup>183</sup>*Ibid.*, 78-9, letter of Sept. 22, 1894.

viously persuaded the government and the Department to tread cautiously. As early as September 1894, Captain Veith was instructed by the Acting Deputy Minister to undertake an extensive tour of Quebec and the Maritimes to examine the operations of those seeking exemptions.<sup>184</sup> Reports were also sought from local fisheries officers in the various regions to be visited.<sup>185</sup> The purpose of this exercise, it seems, was to determine the extent and validity of claims which might be made for special legislation.

The reports from the local inspectors and overseers in response to requests from the Department for an assessment of whether claims for exemptions were justified are instructive in revealing the differences in departmental attitudes towards the practices of the mill owners. Some local fisheries officers had no compunction about stating the view that sawdust and mill waste had had an adverse effect on the fisheries in their areas. Inspector Chapman of New Brunswick, for example, in evaluating the claims of the Curran, Doherty Mills on the St. Nicholas River for exemption, blamed the mills and sawdust for interference with the trout fishery, with the spawning of smelt and with navigation.<sup>186</sup> Overseer Orr described the Eel River in New Brunswick into which the James Murchie Saw Mills discharged their waste, and once a fine salmon stream, as "the most dirty stream I ever saw, and I say this without fear or favour".<sup>187</sup>

Other local officials were more sympathetic to the lumbering interests. Inspector Miles of New Brunswick, for example, was not averse to stating that in his opinion lumbering was more important than fishing and complained about the injustice of fining Canadian mills for discharging waste into rivers already polluted by unrestrained U.S. mills in Maine.<sup>188</sup> The latter observation indeed earned him the criticism of Wakeham who wrote to Prince that Miles was an apologist for the New Brunswick lumbermen.<sup>189</sup> In Wakeham's mind, Miles was unfairly making scapegoats of American mills to shroud the excesses of Canadian operators who had indiscriminately dumped waste into rivers, failed to install fish ladders and systematically ruined fine salmon rivers.

These rather discordant views show that a range of opinions existed within the Department, particularly at the local level, as to the seriousness of the problem of sawdust and the appropriate means for tackling it. Although detailed, comprehensive records do not exist of prosecutions for

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<sup>184</sup>*Ibid.*, 66-68, letter of Sept. 19, 1894.

<sup>185</sup>See *ibid.*, 93-4, for example, letter of Acting Deputy Minister Hardie to Inspector Miles, Oromocto, New Brunswick, Oct. 3, 1894.

<sup>186</sup>P.A.C. Dept. of Fisheries, R.G. 23, File 1669, pt. 2, 161-2, letter to Acting Deputy Minister Hardie, Oct. 6, 1894.

<sup>187</sup>*Ibid.*, 201-203, letter to Inspector Miles Oct. 20, 1894.

<sup>188</sup>*Ibid.*, 232-3, 186-7 reports to Acting Deputy Minister Hardie, November 17, 1894 and D.J. Prescott Mill, Crooked Creek, Albert Co., N.B. and Nov. 18th, 1894 on the problem of U.S. mills.

<sup>189</sup>*Ibid.*, 188-91, memo dated November 28, 1894.

sawdust pollution, it is not mere wild speculation to suggest that this difference in attitude was reflected in a highly variable pattern of enforcement. The work of Allardyce shows that where a community was captive to the lumber industry, and opposing interests weak, it was difficult to enforce the law even with the best will in the world.<sup>190</sup> These problems must have been magnified when the heart of the Fisheries officer was not in it.

The sense of ambivalence within the ranks of the local officers is also reflected to a lesser degree in Veith's reactions to what he saw and heard. In what sounds from his correspondence like a gruelling odyssey through Quebec and the Maritimes in the winter of 1884-5, he was brought into direct contact with the mill owners and representatives of the communities which were sustained by them.<sup>191</sup> Although he also consulted other interests, including fishermen, ship owners, and farmers, it is clear from his reports back to Ottawa that he felt some sympathy with the local lumbering interests. This opinion emerges not from a plea for special treatment of the industry as a whole. Veith completed an extensive report on his return which discriminated carefully between those whom he felt should be able to claim an exemption and those who should not.<sup>192</sup> It surfaces in a general observation to the Acting Deputy Minister, Hardie, that he felt the mill owners had a point when they complained that they were being treated unfairly in now being asked to pay for the deleterious effects of their mills which were legal in design and operation when constructed.<sup>193</sup> Had these requirements of the law been known at the time of construction, provision could have been made at minimal cost. Now they were being asked to invest far more, at a time when profits were dwindling as lumber limits were being thinned out. Veith suggested, indeed, that a mechanism should be devised to obviate such problems in the future, which would require those proposing to construct mills to consult with the Department beforehand and seek direction as to how to comply with the Act. It is a reflection of the prevalent view at that time, that government dictated but did not initiate and share with the private sector in the development of solutions to environmental problems, that this suggestion was rejected out of hand by Prince to whom Veith's letter was referred.<sup>194</sup> In the view of the former the onus was on the mill owners to inform themselves of the law and to initiate consultation with local officers.

The outpouring of special pleading triggered by the *Fisheries Act Amendment Act* of 1894, and the intelligence picked up through local fisheries officers and Veith, had its effect. The new Minister of Marine and Fisheries,

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<sup>190</sup>G. Allardyce, "The Vexed Question of Sawdust: River Pollution in Nineteenth Century New Brunswick", (1972), 52 *Dalhousie Rev.* 177-90.

<sup>191</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 1. Letter to Acting Deputy Minister Hardie, Dec. 21, 1894, outlining details of trip.

<sup>192</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2, together with progress reports from his tour.

<sup>193</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 1, letter dated Jan. 4, 1895.

<sup>194</sup>*Ibid.*, by annotation to a letter dated Jan. 28, 1895.

John Costigan, was persuaded that it was impossible to proceed with enforcement of the sawdust prohibition from May 1, 1895. In March of that year, he sought the approval of the Governor General in Council "to instruct officers in the Department to take no action towards the enforcement of the law, and that in the event of proceedings being taken by outside parties for the prosecution of mill owners, to remit, as far as the law allows, the fines imposed under such prosecution to the parties."<sup>195</sup> He justified this action on the grounds that great hardship would be inflicted "in a class of cases apparently not considered or contemplated by Parliament when this Act was under consideration."<sup>196</sup> He proposed introducing a Bill at the next session of Parliament to allow more extensive consideration of exceptions by Order-in-Council, or the grant to the Minister of the power of suspending the enforcement of the provisions of the main Act.

Local fisheries officers were duly instructed. Although it is not entirely clear from Costigan's request, the new policy was interpreted by the Department to mean that enforcement of the law was only suspended in relation to the disposal of sawdust in those rivers presently exempt by Order-in-Council.<sup>197</sup> Mills on non-exempt rivers were still considered open to prosecution.

In tune with the intention expressed by the Minister in his request to the Governor-General in Council, legislation was introduced in the summer of 1895 which revived the power of exemption, vesting it this time in the Governor-in-Council. The effect of any exemption granted was, however, limited in time. It was not to have any force after June 30, 1897. Any existing exemption previously granted by the Minister was also to expire on that date.<sup>198</sup>

In the Senate the second reading was introduced by Mr. Angers, the Minister of Agriculture, with a recitation of the difficulties inherent in enforcing the prohibition against discharge throughout the Dominion.<sup>199</sup> The legislation would allow the Department to classify rivers and streams according to whether there were fisheries to be protected and the importance of the lumbering industry to the region. He pointed to the adverse effect of penalties on small mills in remote communities and on the great mills on the Ottawa River. In particular, he dwelt on the "proven" lack of injury to navigation and fishing in the Ottawa and on the incongruity of curtailing the operation of the lumbering trade in the Ottawa Valley to satisfy the quirks of a single boatman, Ratté.<sup>200</sup> He also took great pride in

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<sup>195</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2, letter of March 19, 1895.

<sup>196</sup>By the statement he was referring especially to the case of small mills in the Maritimes. In effect he argued that the 1894 Act was directed towards the lumbermen of the Ottawa Valley with little thought for those elsewhere in the country.

<sup>197</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2, letter of W. Bailey, Fishery Overseer, Round Hill, Annapolis Co. N.S. to Acting Deputy Minister Hardie, April 17, 1895, and Hardie's response, April 27, 1895.

<sup>198</sup>*The Fisheries Act Amendment Bill*, S.C., 1895, c. 27.

<sup>199</sup>Senate Debates, 1895, 434-5 (June 26).

<sup>200</sup>*Ibid.*, 436.

pointing to a topographical plan of the Ottawa on display in the lobby of Parliament which he maintained supported his arguments. The source of the plan of much of his information was only revealed when Senator Clemow forced from him the name of the author, the ubiquitous Sandford Fleming.<sup>201</sup>

The reaction to both the Bill and the apologia for the industry was predictable and sharp. Clemow, castigating the Minister for ignoring the Grey report and glossing over the counter-petitions, launched into a lengthy four-hour rehearsal of the sawdust saga and the damaging evidence addressed by both Grey and other witnesses before the Senate Select Committee in 1888.<sup>202</sup> He detailed the earlier promises of the government to take resolute action and his own initiative in amending the 1894 Act. Decrying the fact that the lumbermen had circumvented the law since May 1, which he felt brought the law in general into disrepute, he attacked the lobbying methods of the millowners, referring specifically to the "paid emissaries" stalking the corridors of Parliament.<sup>203</sup> He also marvelled at their solidarity:

All these mill owners are united as one man in the promotion of their interests. They are known amongst politicians as hydraulic conservatives and timber limit reformers. Therefore, there is no political significance in the matter at all. They join hand in hand: when you strike one, you strike the whole of them.<sup>204</sup>

The only conclusion which could be reached was that unless these men were stopped the Ottawa River would be choked and made useless for navigation.

Clemow was supported in his frustration by a number of other senators. Mr. Gowan, who supported the general tenor of the Bill, but regretted its application to the Ottawa, focused upon the ineffectiveness and high cost of the litigation as a means of protecting riparian rights.<sup>205</sup> Senator Kaulbach launched a stinging attack on those who doubted the adverse effect of sawdust on fisheries, and pointed to the discriminatory way in which the law on sawdust pollution was applied, forever favouring the rich and powerful lumbering interests in Ottawa.<sup>206</sup> Mr. Power pointed to the growing realization that the pioneers had often failed to value and had in fact abused the natural attributes of the country.<sup>207</sup> He also cited legislation in a number of states in the United States, and in Britain, which outlawed

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<sup>201</sup>*Loc. cit.*

<sup>202</sup>*Ibid.*, 437 et seq; 470 et seq. (June 27).

<sup>203</sup>*Ibid.*, 483.

<sup>204</sup>*Ibid.*, 484.

<sup>205</sup>*Ibid.*, 486.

<sup>206</sup>*Ibid.*, 513-6 (July 2).

<sup>207</sup>*Ibid.*, 516.

the discharge of deleterious substances into water without the power of exemption granted in Canada.<sup>208</sup> Mr. Boulton castigated one of his colleagues, Senator Primrose, for reading from the lumbermen's brief, and called upon the senators to recognize that the public interest was far broader in scope than the welfare of the lumbering industry.<sup>209</sup>

Notwithstanding the vigorous dissents registered, what appears to have been a mammoth lobbying campaign by the lumbermen was to win the day. Mr. Scott, in particular, from the opposition benches, who had shown such resolution in attacking the Government the previous year, underwent what a colleague described as a conversion and proclaimed himself as satisfied with the Government's proposal.<sup>210</sup> The objections of the lumbermen to the 1894 Act were, he felt, reasonable, buttressed as they were by the careful advocacy of his colleague, the Ottawa lumberman, Mr. W.C. Edwards, who, at that time, sat in the Commons.<sup>211</sup> He was also visibly impressed by the sheer weight of petitions supporting the maintenance and extension of exemptions. Whatever the state of public opinion previously, it had clearly shifted to a position critical of outright prohibition. Along with a number of his colleagues he genuflected in the direction of Sandford Fleming, and declared how fortunate Ratté was to have a constant source of recompense, the mill owners, to draw from.<sup>212</sup>

The views of Scott clearly reflected the opinion of the majority in the Senate, and the provisions designed to revive and extend the power of exemption until 1897 were approved by a large margin.<sup>213</sup> The Senators, however, went further. Blocking their ears to the outraged cries from Senator Clemow and his supporters, the Upper House also approved of the remission of fines imposed on those millowners whose mills had been exempt on April 30, 1895, and who were subsequently prosecuted under the 1894 Act.<sup>214</sup>

This corporate change of heart by the Senate is no doubt largely explained by the very effective lobbying campaign which the Ottawa lumber interests, in particular, mounted. Clearly, too, the volume of complaints and petitions surprised many politicians, who seem to have been naively ignorant of the leverage which the industry had on the concerned communities and individuals controlled by or beholden to it.<sup>215</sup> The timing of the debate may have also been significant. By the summer of 1895, the

<sup>208</sup>*Ibid.*, 517-8.

<sup>209</sup>*Ibid.*, 530.

<sup>210</sup>*Ibid.*, 502-4.

<sup>211</sup>*Ibid.*, 502-3.

<sup>212</sup>*Ibid.*, 506.

<sup>213</sup>*Ibid.*, 570 (July 3), reference in speech of Hon. Mr. Angers.

<sup>214</sup>*Ibid.*, 569-72 (July 3).

<sup>215</sup>*Ibid.*, see especially the speech of Senator Scott, 505-6.

country, and especially the politicians, were looking forward to, or dreading, a national election. Given the uproar caused in the Maritimes, especially in New Brunswick and in the Ottawa area, both regions within the economic influence of the lumber barons, it was understandable that both parties would look to their potential electoral fortunes and show caution in interfering with interests which could influence a significant number of votes, and possibly the result of the election.<sup>216</sup> No one, of course, admitted this in debate, but one gets a very real sense of it in the sentiments of both government and opposition spokesmen. Certainly some of the correspondence, which is preserved in Departmental files, reveals that mill owners and their representatives were not shy in pointing out the dependence of certain members of Parliament on their support for re-election.<sup>217</sup>

Despite the proclaimed intentions of the Government to use the two years to review systematically the sawdust problems with a view to establishing a clear balance between the interests in opposition, this did not happen. The election supervened with a resulting change in government. This produced a hiatus which worked against any significant follow-up. Moreover, although the government changed, the principal actors within the Department, such as Prince, stayed on and were thus able to exercise continuing influence on Government policy.

The lumbermen of Ottawa were alert to the dangers inherent in allowing the hiatus to continue and wasted little time in writing to the new Prime Minister, Sir Wilfred Laurier, both reciting their traditional litany of objections to legal restraints and counselling immediate action to repair their situation on a permanent basis.<sup>218</sup> Interestingly, given the deference paid to the mill owners two years before, the Government response was less than positive. Scott, now the Government leader in the Senate, did introduce yet another *Fisheries Act Amendment Bill* designed to extend the grace period for exemptions for another year.<sup>219</sup> However, compared with his vigorous performance in 1895, he appeared almost apologetic on this occasion. Although pressing the desirability of an extension, he was not prepared to stand in the way of an amendment proposed by Senator Clewlow which reduced the extension by two months, the extension to expire on May 1, 1898.<sup>220</sup>

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<sup>216</sup>Both parties felt themselves in a sensitive position at the time. The Tories after seventeen years in office seemed to be stumbling from crisis to crisis under a seemingly endless parade of premiers. Lack of resolve over the Manitoba School question had alienated the French Canadian members of the Cabinet. Indeed, Angers, the Minister of Agriculture, resigned shortly after the sawdust debate. The Liberals under Laurier also seemed compromised by and uncertain of their position on the Manitoba Schools question. This caused them concerns about their electoral chances in both Quebec and Ontario. See P.B. Waite, *Canada 1874-1896 Arduous Destiny*, 1971, 252-77.

<sup>217</sup>Allardyce, *op. cit.*, 184-5 quoting from correspondence in P.A.C., Dept. of Fisheries, R.G. 23, file 1642-16.

<sup>218</sup>P.A.C. Dept. of Fisheries R.G. 23, file 1669, pt. 2, letter of May 21, 1897.

<sup>219</sup>Senate Debates, 1897, 579, *et. seq.*, (June 14).

<sup>220</sup>*Ibid.*, 595-6 (June 15). See *The Fisheries Act Amendment Act* S.C. 1897, c. 24.

The Department was quick to follow up on the enactment of the extension legislation, by advising the mill owners bluntly that exemptions would expire on May 1, 1898, and that after that date they would be liable for all the penalties of the statute.<sup>221</sup>

The response from representatives of the lumber industry to the directive, and others which followed, varied. Evidently cracks were appearing in the ranks of the Ottawa lumbermen. The Ottawa Citizen reported on October 30, 1897, that the E.B. Eddy Manufacturing Company was building a large carrier "to take sawdust, shavings and other refuse from the company's match factory and lumber mill to large furnaces recently erected" to be there consumed. Even J.R. Booth wrote a joint letter with W.C. Edwards in May 1898 to the new Minister of Marine and Fisheries, Sir Louis Davies, drawing his attention to an ongoing program for investigating ways and means of converting sawdust and refuse into commercial products.<sup>222</sup> They referred to a pilot plant which was being built to test the viability of producing by-products including calcium carbide. Their uncommonly meek request was that a further grace period of 18 months be granted to allow a complete evaluation of these experiments. In a separate communication, Booth stated that if their plans came to naught he would "cheerfully submit to such rules, regulations and restrictions as the Government of Canada may deem fit to impose respecting the disposition of mill refuse."<sup>223</sup> By contrast, a group of New Brunswick lumbermen wrote to the Minister setting out the traditional arguments in support of exemption. This was supplemented by individual petitions, such as the letter from S.H. White, the owner of the Salmon River Mill, which Allardyce has characterized as revealing "all the spirit and swagger of the nineteenth century lumber barons."<sup>224</sup>

We have been informed by the fish warden of our town that after the first of May we will be required to take care of our own sawdust, which hitherto has been put in the water. This is a matter that our attention was called to some two years ago, but was not enforced and we trust it is not the intention to be enforced now, as in our locality it is beyond all question unpracticable to do so. The fishing industry is nothing and can be made nothing, as the streams are very small, not navigable, and very rapid, there not being, or ever has been, any fishing industry in the vicinity, and to have this law enforced on the bayshore especially on the New Brunswick side would mean the shutting down of all the mills on the shore and an expense to each of from two to five thousand dollars. . . . The cost of such repairs to one mill would amount to more than all the fish on the shore for the last five years. . . . as no doubt you are well aware this is the lumbering district of the southern part of New Brunswick. We trust that it is not intended to carry out this law in our vicinity, as it is beyond the shadow of a doubt that the lumber business and the fishing business are not at all in comparison.<sup>225</sup>

<sup>221</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2, circular from F. Gordreau, Deputy Minister to Ottawa lumbermen, September 27, 1897.

<sup>222</sup>P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 3, 68, letter of May 23, 1898.

<sup>223</sup>*Ibid.*, 69, letter of May 23, 1898 to Sir Louis Davies.

<sup>224</sup>Allardyce, *op. cit.*, 186.

<sup>225</sup>*Loc. cit.* The quote is from White's letter of May 2, 1898 (P.A.C. Dept. of Fisheries R.G. 23, file 993-41).

The difference in response between the Ottawa and New Brunswick lumbermen is intriguing. To some degree they shared a common problem. In both regions forest resources were palpably in decline, as the first class timber had largely been culled and lower grade wood was increasingly being harvested. This might have been a spur to both groups recognizing the early symptoms of a dying industry and using that fact to extract concessions from Government. The reality is that while both groups of lumber interests were in trouble, there were important variables which made their situations very different and which explain the diverse responses to the apparent new resolve on the part of the Federal Government to enforce the sawdust prohibition.

The New Brunswickers felt, and the reality was, that they had far more to lose. The lumber industry in the Maritimes had continued to depend on the British market throughout the 19th century. That market had begun to contract significantly as shipping progressively turned from sail and wood to steam and steel.<sup>226</sup> Furthermore, the very fact of the earlier start of logging operations in New Brunswick meant a greater depletion of reserves. Finally, the scale of New Brunswick mills never matched that of their Ottawa Valley counterparts, and the economic vision of the New Brunswick mill owners was limited by comparison to the Ottawa lumber barons. Thus placed, the New Brunswick timber men used the only strategy available to them, the economic "ransom" approach.

By contrast, the Ottawa mill owners had less to lose and a far more positive view of what it was possible to achieve politically. True, things were not going well for them.<sup>227</sup> Stands of first class timber were thinning out. The epicentre of activity in the Ontario lumber industry was moving westward beyond Niagara Falls. Moreover, protective legislation in the United States, the Dingley Tariff, and the Canadian reaction to it was making the business of exporting lumber more tenuous. However, unlike many of their New Brunswick counterparts, the Ottawa lumber barons were economically well placed for they had adroitly diversified their economic holdings.<sup>228</sup> Moreover, they were more politically astute and well-connected. Realizing that the future of the lumber industries depended more and more on conservation of existing stands and the manipulation of the state to that end, they began pressuring the Government of Ontario to move in that direction and to develop the appropriate legislative and administrative regimes.<sup>229</sup> Despite the earlier malleability of the Mowat government to the suggestions of the lumber lobby, his Liberal successor proved less cooperative. Moreover, the Conservative opposition in Toronto was beginning to show signs of democratic reformism of the type which was strongly

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<sup>226</sup>See H. Thornburn, *Politics in New Brunswick*, 1961, 13.

<sup>227</sup>R.P. Gillis, "The Ottawa Lumber Barons and the Conservation Movement 1880-1914". (1974) 9 *Jour. Can. Stud.* 14, 15.

<sup>228</sup>*Ibid.*, 16-17.

<sup>229</sup>*Ibid.*, 22-26.

antithetical to big business. In the light of this less than sympathetic environment at the provincial level, the lumbermen of the Ottawa Valley, especially Edwards and Bronson, both strong Liberals and politically involved, moved closer to the Federal Government and Laurier as the potential saviours of the industry.<sup>230</sup> As they were effectively supplicants and as the Liberals felt particularly vigorous after a convincing election win, it was not difficult for them to appreciate that there were concessions to be made. Despite their continuous railing in the past against sawdust pollution measures, compromise on this was presumably far less costly in the long run than the damage the government could do by not recognizing the importance of the lumber industry to the economy, and the need to protect its resources and its position in international trade. In short, the time had come to "pay the federal piper".

Notwithstanding the signs of submission or at least compromise by the traditionally vigorous opponents of the legislation, the Ottawa lumber barons, the Government put through a bill in the summer of 1898—extending the exemptions allowed under the 1895 Act for one more time, until January 1, 1899.<sup>231</sup> When that extension expired, the Department set about not only establishing compliance but also, where necessary, launching prosecutions. It is true that some soft pedalling occurred during the period of the election year, 1900, especially in New Brunswick, at the behest of the Minister.<sup>232</sup> However, with the return of the Liberals as a result of that campaign, ministerial intestinal fortitude seems to have been restored.

In 1901 the legislative prohibition against the discharge of sawdust into Canada's waterways was to receive its last great challenge. Despite J.R. Booth's protestations of conformity in 1898, he continued to discharge sawdust into the Ottawa, citing the failure of his "experiments" and the difficulty he was having in making the architectural changes in his mill to allow him to comply with the new regime.<sup>233</sup> For three years the Department deferred moving against him, accepting his frequent pleas for another slight period of indulgence to finish the necessary conversion of his mill. In August 1901, the Ministry seems to have been shaken out of its inaction by a complaint about Booth's practices lodged with Sir Louis Davies by his influential cabinet colleague, the Minister of Public Works, J.I. Tarte.<sup>234</sup> After directing an investigation of the situation by R.W. McCuaig, the local fisheries inspector, and in the face of a further plea for indulgence by

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<sup>230</sup>*Ibid.*, 27.

<sup>231</sup>Senate Debates, 1898 1266-7 (June 10). Not surprisingly, Senator Clemow remonstrated vigorously once again. Once again he managed to amend the legislation by backdating of the exemption from May 1 to January 1, 1899. See *The Fisheries Act Amendment Act S.C.* 1898, c. 40.

<sup>232</sup>Allardyce, *op. cit.*, 186-7, referring to correspondence in P.A.C. Dept. of Fisheries R.G. 23, file 993-41 re sawdust pollution in the Salmon River, Albert Co., N.B.

<sup>233</sup>See correspondence in P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 3, covering period 1898-1901.

<sup>234</sup>*Ibid.*, 154, letter of August 7, 1901. Tarte chose unusually strong language, charging the government with "committing a national crime, every day, in allowing that fine waterway to be destroyed by sawdust and debris of the lumber mills".

Booth, who claimed he was building a pulp mill to be run by steam which would allow for combustion of the sawdust, the Deputy Minister, F. Gordreau, advised the mill owner on August 23rd, 1901, that the Department intended to proceed against him.<sup>235</sup> The Department of Justice was so instructed and Booth was prosecuted under the *Fisheries Act*. On September 11, the Deputy Minister of Justice, E.M. Newcombe advised his opposite number at Marine and Fisheries that Booth had been convicted on his own admission and fined \$20.00 on the previous day.<sup>236</sup> Newcombe sought confirmation that the Department of Marine and Fisheries wished to have further prosecutions taken if the lumberman continued to discharge waste and recommended proceedings against him in Exchequer to obtain an injunction. Gordreau in reply emphasized that Booth should be prosecuted from day to day, and instructed Justice to initiate proceedings for injunctive relief. Booth was convicted of a second offence under the *Fisheries Act* on September 17 and fined a further \$20.00.<sup>237</sup>

In the meantime, W.C. Edwards, who by this time had assumed the mantle of mediator, rather than advocate for the lumbering cause, had contacted the Prime Minister, Sir Wilfred Laurier, and given him an undertaking that Booth would cease his illegal activities by a mutually agreed time. Sir Wilfred, sensitive to this overture by a loyal supporter, wrote to Davies requesting a postponement of further prosecutions against Booth.<sup>238</sup> At Laurier's further request, all proceedings were discontinued, as Booth had promised after the expiry of the season to erect a burner and cease discharging sawdust into the River.<sup>239</sup>

By 1902, the legal proscription against the discharge of sawdust was not only firmly established but was also being enforced, or the express or implied threat of prosecution was being used as a lever by Department officials to encourage compliance. Material in departmental files demonstrates that the favoured policy was to reason with and persuade the laggards, and only to resort to prosecution if the mill owner proved recalcitrant.<sup>240</sup> Moreover, as correspondence over the activities of certain mills on Moyie Lake in the South East Kootenays of British Columbia shows, even if the statute was breached the Department was amenable to exercising restraint, if the perpetrators proved cooperative.<sup>241</sup> The process was no doubt assisted by the acceptance of the steam mill as the more effective

<sup>235</sup>*Ibid.*, 168-9, letter of F. Gordreau to J.R. Booth. An earlier letter of August 14 reveals that the Minister with Cabinet support was pressing for action.

<sup>236</sup>*Ibid.*, 181, letter of E.H. Newcombe to F. Gordreau.

<sup>237</sup>*Ibid.*, 185, letter of E.H. Newcombe to F. Gordreau, Sept. 18, 1901.

<sup>238</sup>*Ibid.*, 180, letter dated Sept. 17, 1901, Sir Wilfred Laurier to Hon. Sir Louis Davies.

<sup>239</sup>*Ibid.*, 189, letter from Sir Wilfred Laurier to F. Gordreau, Deputy Minister of Marine and Fisheries, Sept. 24, 1901.

<sup>240</sup>*Ibid.*, 239, letter from E.E. Prince, Dominion Commissioner of Fisheries, to H. Sword, Fisheries Inspector, New Westminster, B.C., June 23, 1902 in response to inquiry from the latter, May 30, 1902.

<sup>241</sup>*Ibid.*, 220-39.

mode for sawing lumber, and by a contraction of a number of mills in some areas of the Dominion.

The ultimate vindication of those who had struggled for vigorous enforcement of the law against sawdust pollution did not, of course, ensure that all the problems associated with the practice disappeared. The record shows that J.R. Booth was to achieve further notoriety from time to time, as instances of non-compliance came to light. In 1906, for instance, Senator Poirier raised the issue of continuing discharge of sawdust by certain mills in the Ottawa neighbourhood.<sup>242</sup> Senator Scott responded that he assumed that Mr. Booth was "the chief sinner". Moreover, as Allardyce has shown, some mill owners in New Brunswick continued to flout the law, especially in areas in which the fishing interest was comparatively weak and the local populace lacked the concern to support the fishermen.<sup>243</sup>

Regardless of the law and its enforcement, the accumulated mill waste and sawdust continued to plague the River. In 1919, explosions of sawdust took place.<sup>244</sup> The occasion of a royal visit in the 1950's encouraged a journalist to leap out of a launch onto the "shore" which turned out to be "yielding mill refuse flotsam". More recently, skindivers have reported that the river bottom is covered with "a thick layer of waterlogged mill detritus and still valuable sawlogs."<sup>245</sup>

It also has to be admitted that the price of the protection of the nation's waterways from pollution by mill refuse was another form of pollution. As refuse and sawdust progressively came to be burned, it produced air pollution which was to afflict adversely many mill communities. Furthermore, the captains of the lumber industry, who went on to build and operate pulp and paper mills were to continue to abuse rivers, lakes and streams, by pouring into those bodies of water not sawdust but a variety of waste chemical agents which were more insidious, and often more harmful.

## **7. The Sawdust Menace, the Exploitation of Natural Resources and the Environment and Facing up to Industrialization**

The account of the long struggle to control the waste disposal practices of the lumbering industry provides insights into nineteenth century Canadian attitudes towards the depletion of renewable resources, the exploitation of the environment and the more unfortunate by-products of industrialization.

The early part of the period covered in this article coincides with the high point and subsequent decline of the pioneer era in Canadian economic and social development. Canada, that is, Canada east and northeast of the

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<sup>242</sup>Senate Debates, 1906, June 22, 875-6.

<sup>243</sup>Allardyce, *op. cit.*, 186-9.

<sup>244</sup>J.W. Hughson & C.J. Bond, *Hurling Down the Pine*, 1964, 55.

<sup>245</sup>*Loc. cit.*

Great Lakes, was viewed by its inhabitants as a territory of great vastness, and of boundless visible resource wealth, represented mainly by its forests. With a small population it seemed inconceivable that the exploitation of those resources could ever threaten their very existence. Somehow there would always be another stand to cull, another valley full of trees to thin. Conservation was unheard of, and any worry over the method by which forest resources were exploited reflected nothing more than concern for the level of revenues generated and control of those revenues.<sup>246</sup>

In the same way that little or no thought went into preserving timber for the future, there was no sensitivity to the long term adverse effects of the waste of the lumber industry on the natural environment. The thought prevailed that the waterways of the country were sufficiently great in volume and swift in motion that the waste was bound to be dispersed or easily assimilated. The lack of awareness and prescience of the population is demonstrated by the blindness of successive generations of pioneers to the changing state of Canada's rivers and streams. Both in the Maritimes and in Ontario streams once abounding in fish became over the course of thirty to forty years largely devoid of valuable fish life and in some instances little more than floating rubbish dumps. So seemingly vast were the resources and so compelling were the economic imperatives of the lumber industry that earlier generations failed to notice or chose to ignore the progressive deterioration of water quality which was being wrought in front of them. As a result, later generations all too often had no basis for realizing how far their waterways and ultimately they had been deprived of the natural amenities of the water. In a matter of decades communities forgot that their forbears had ever benefitted from, or had access to, other forms of nature's bounty in their rivers and streams or had once enjoyed clean water.<sup>247</sup>

The general optimism that Canada would never be without forests to cull, and rivers to carry away the garbage was, of course, buttressed by a system of economic organization which placed a premium on individualism and aggressive risk taking and in which local communities were inextricably tied to the business strategies of their employers. In any region in which the lumber industry was strong it was unlikely to meet resistance from the bulk of the population because they relied upon it for their livelihood. Indeed, the industry could normally count on the approval and support of the local residents.<sup>248</sup>

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<sup>246</sup>It was not until the late 1870's that a conservation movement emerged in North America, initially in the United States and then in Canada. See R.P. Gillis, "The Ottawa Lumber Barons and the Conservation Movement, 1880-1914", (1974) 9 *Jour. Can. Stud.* 14.

<sup>247</sup>This insensitivity is seen time and time again in letters to the Department of Marine and Fisheries from mill communities, especially in the Maritimes, protesting against the sawdust prohibition. The claim is made that the river or stream has never produced fish in quantity, when in fact large fish stocks had existed at an earlier stage. See P.A.C. Dept. of Fisheries, R.G. 23, file 1669, pt. 2.

<sup>248</sup>See G.A. Stetter & A.F.J. Artibise "Canadian Resource Towns in Historical Perspective" in R. I. Bowles, ed., *Little Communities and Big Industries*, ed., 1982, 47-53.

True it was that, even from an early date, dissentient voices were heard from those whose economic orientation was different and who were directly threatened by the cavalier waste disposal practices of the mill owners (the fisher folk, the shippers and forwarders and the farmers) or from those who already recognized the more general environmental consequences of what the lumber industry was doing. However, these groups were rarely an economic or political match for their opponents and the mill owners were usually able to outmanoeuvre them and get their way when conflict arose.

The, at best, ambivalent attitude towards the protection of the natural environment is faithfully reflected in the legislative history of attempts to deal with the dumping of mill waste prior to Confederation. The perception that something was wrong with the lumber industry and its progressive abuse of water resources clearly emerged during the period, and was from time-to-time translated into legislative prescription by well-meaning administrators and legislators. However, in most instances, those in charge lacked the clear vision to appreciate the long-term and cumulative nature of the problem; in this they seem to have shared the misplaced optimism of the rest of the population. Where more deep-seated concern did exist, administrators and legislators naively assumed that the criminal law and its traditional structures would satisfy the need for resolute official action. A little thought might have suggested that a system which still relied heavily on private initiative in prosecution was unlikely to stir many hearts in communities which depended so much for their economic livelihood on the welfare of the lumber industry. These policy makers were still unfortunately captives of an older and more comfortable notion of government in which intrusion in and direction of social policy by the state was viewed with great apprehension.

During the period after Confederation, the former pioneer psychology began to break down as the recognition grew that the economic and social welfare of an increasingly diverse and sophisticate economy required some degree of planning and direction from the centre. This was, of course, not a sharp or instant change. Individual initiative and the creation of the conditions in which it could thrive, continued to count for much and the optimum formerly apparent in the lumbering industry and among its apologists was felt elsewhere, in mining, in transportation and in the opening up of the West. However, the frontier attitude was progressively tempered by the recognition that in a country as awkward in geographic layout and ethnic and linguistic composition as Canada, nothing was likely to hold together unless the national government was recognized as a stimulator and to some extent as the director of economic endeavour.

The period from 1867 until the mid-1880's is marked by the attempts of the Canadian state to plot out its political and economic "turf". Especially under Macdonald, the realization developed that if Canada was to survive as a political entity, it had to demonstrate not only its political but also its

economic independence.<sup>249</sup> The establishment of a distinctive Canadian economy required direction and financial support from the Federal Government, which in turn meant a significant expansion of the apparatus of government.<sup>250</sup>

Although the state intruded more and more into the lives of Canadians between 1867 and 1885, the latter was not a period in which great sympathy for, or sensitivity to, the conservation of the country's resources or protection of its environment was evident. In the first place, Canadian economic welfare was seen to depend on the vigorous exploitation and marketing of natural resources. Secondly, while the period was in fact one of economic growth, it was punctuated by periods of depression which must have made concern for the weaker elements in the economy, let alone the natural environment, seem very ill-conceived by those in the leading industries and businesses.<sup>251</sup> However, the redefining of Canada's economic policies and expansion of the apparatus of the state to accommodate new conditions did result to some extent in a more balanced view of the economic well being of the nation. This is seen, for instance, in the emergence of greater governmental concern for the welfare of both fishing (an important industry in some regions of the country) and navigation (a key element in transportation). These developments, in particular, were both to lay the administrative basis for more resolute action to protect water resources at a later stage and to provide a focus for those legislators who were already looking beyond the benefits of economic growth to its darker underside.

This early post-Confederation period is one in which we see the preservation of older frontier values, espoused most enthusiastically by those who were pressing out the limits of Canadian economic activity, together with the growth of at least mildly collectivist tendencies in which stress was laid more on the harmonization of various economic and social interests, and on the desirability of preserving Canada's natural heritage for future generations.<sup>252</sup> It is symptomatic of the political and economic realities of the era that the newer view of society only gained modest acceptance. Although the Federal Government showed some sympathy for a policy of balancing economic and social interests more finely, and of taking concrete steps to preserve environmental values, it all too often proved impotent in the face of threats from its economic partners, in particular the lumber barons. Moreover, provincial governments, especially that of Ontario, were in a phase of thinking in which such a heavy premium was placed on the encouragement of development that concern for broader social interests was often entirely lacking. The pioneer ethnic was still in the ascendant.

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<sup>249</sup>P.B. Waite, *Canada 1874-1896 Arduous Destiny*, 1971, 74-145.

<sup>250</sup>See J.E. Hodgett, *The Canadian Public Service 1867-1970*, 1973, 20-1.

<sup>251</sup>See O.J. Firestone, *Canada's Economic Development 1869-1953*, 1958, 38-9. On the impact of depression on the lumber industry see A.R.M. Lower, *The North American Assault on the Canadian Forest*, 1938, 148-159.

<sup>252</sup>On the collectivist elements in Canadian public policy in the exploitation of lumber resources, see H.V. Nelles, *The Politics of Development*, 1974, 39-49.

By the late 1880's and early 1890's, a far clearer perception was developing in official circles in Canada, especially at the federal level, but also in provincial governments and legislatures, of both the detrimental effects of uninhibited economic growth and industrialization. The social cost was seen in the tragic loss of human life in factories, the deterioration in public health in cities and the damage actual and potential to certain of the country's natural resources and environment. The realization struck politicians of both political parties who, in tune with counterparts in the United States and Great Britain, began to see modern government as having an assertive paternal as well as a developmental role. In their minds, if government was to encourage economic development by industrialists, it also had a correlative social responsibility to temper or offset the negative effects of that process by introducing and applying regulatory and prohibitory legislation.

The attitudes of such politicians were shared with, and often stimulated by, contact with civil servants with a similar instrumental vision of the state. The growth of the apparatus of government to support developmental policies was to draw into the public service men who developed a strong commitment to the amelioration of a wide range of social problems which they were able to identify as they both generated and carried through the economic policies of government. These new men were to direct their thoughts more and more to how to develop novel mechanisms as well as to infuse life and purpose into administrative regimes already in place for promoting the broader social welfare and counteracting the negative features of economic development.<sup>253</sup>

Although it is difficult to make the same claim about the judiciary espousing more communalist values late in the century, in fact their conservatism produced attitudes not dissimilar to those of more progressive politicians and administrators. As in *Ratté v. Booth* in the context of pollution, so in a series of late nineteenth century cases involving the allocation of water rights, the judges demonstrated that they saw their role as the preservation of traditional property rights.<sup>254</sup> Even in the face of strong arguments in favour of relaxing this approach in the "public interest" to foster industrial development they usually proved reticent. In the sense then, that the courts stressed concern for interests other than economic growth, their attitudes intersected with those of more progressive forces.<sup>255</sup>

Parallel to this growing sensitivity on the part of politicians and civil servants, and the preservation of traditional values by the judiciary, was the emergence of a greater awareness in segments of the public of the

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<sup>253</sup>P. Gillis, "Early Federal Regulatory Records as Potential Sources for the History of Science and Technology in Canada: The Case of the Sawdust Pollution Files" in R.A. Jarrell & N.R. Ball eds., *Science, Technology and Canadian History*, 1980, 60, 61-2.

<sup>254</sup>See J. Benidickson, "Private Rights and Public Purposes in the Lakes, Rivers and Streams of Ontario 1870-1930" in D.H. Flaherty ed., *Essays in the History of Canadian Law*, Vol. II, 1983, 365, 368-86.

<sup>255</sup>For a broader study of the attitude of Canadian judges to industrialization see J. Nedelsky, "Judicial Conservatism in an Age of Innovation: Comparative Perspectives on Canadian Nuisance Law 1880-1930" in D.H. Flaherty ed., *Essays in Canadian Legal History*, Vol. I, 1981, 281-322.

unfortunate consequences of economic growth. More and more people were able to look beyond the narrow values and imperatives of frontier life, and to ask fundamental questions about the broader economic and social future of the country. It was becoming apparent to those who thought about it that there were limits to the resource wealth of the country, and that it was no longer safe to assume that the environment could forever receive man's waste products and assimilate them without permanent injury.<sup>256</sup> Such views as these were underlined by the beliefs of democratic reformers who were opposed to big business and the power which it seemed to wield over the political and economic fortunes of the country.

The congruence of these opinions was to produce a climate in which it was possible for government to be more assertive in recognizing and dealing with the country's social problems, and to formulate the appropriate public policy to support remedial action. The era was one in which government intervention to promote the social good was evident in a variety of fields, not only in pollution control, but also in improved factory legislation, in the growth of public health regulation, and in the establishment of National and Provincial Parks, to name a few.<sup>257</sup> Government felt more confident about assuming an activist role because of the existence of a broad coalition of interests supporting change.

Given these shifts in social attitudes and the distinct movement towards a more activist role for the state in tackling social problems and harmonizing disparate interests, the question arises why the path to general outlawing of the dumping of mill waste and sawdust proved to be such a lengthy and tortuous one. The answer seems to lie both in the continuing power and influence of the great entrepreneurs, and the limited vision of government when it came to dealing with practices detrimental to the environment.

We have seen throughout this analysis frequent evidence of the lobbying capabilities of the lumber barons, especially those operating in the Ottawa area. They were a close-knit group of aggressive businessmen who had an almost evangelical belief in their indispensibility to Canada's economic welfare.<sup>258</sup> As they grew in economic wealth they established firm political connections which, in a society apparently dependent for its survival on entrepreneurial initiative and valuing patronage, gave them an edge in any debate about a control of their activities. Indeed it is testament to the weight of their influence that, although in time they were to have

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<sup>256</sup>This sentiment comes through clearly in the Senate debates; see especially Senate Debates, 1895, 517-8 (July 2), speech of Hon. Mr. Power.

<sup>257</sup>For graphic accounts of the problems associated with industrialization in Canada see M.S. Cross ed., *The Workingman in the Nineteenth Century*, 1974, 71-182. On legislative initiatives in the regulation of factories see R.C.B. Risk, "This Nuisance of Litigation": The Origins of Worker's Compensation in Ontario' in D.H. Flaherty ed., *Essays in the History of Canadian Law* Vol. II, 1983, 418-423-5. On the establishment of National Parks, see Parks Canada, *Parks Canada Policy*, 1979, 7. For information on the establishment of Provincial Parks by Ontario see A.M. Evans, "The Mowat Era 1872-1896: Stability and Progress" in Ontario Historical Society, *Profiles of a Province*, 1967, 97, 102.

<sup>258</sup>For a particularly pungent description of the lumbermen as "robber barons" see A.R.M. Lower, *The North American Assault on the Canadian Forest*, 1938, 26.

"their wings clipped" as their foes grew in number and confidence, in the final analysis the ultimate effectiveness of the legal proscription of the discharge of sawdust had to await not only the creation of a favourable political and social climate for the enforcement of the law, but also the decision of the lumbermen that it was in their best interests to compromise and comply.

The arrogance and machinations of the lumbermen do not constitute the complete story. Although, as we have seen, government developed greater fortitude in developing and enforcing the sawdust law as the century wore on, its perception of what it was appropriate for government to do to resolve the problem was limited. The last decade of the nineteenth century marks the establishment of a number of novel regulatory and management regimes in Canada at the Dominion and provincial levels both to control and mediate the economic development of the country. The Federal Government, for instance, instituted programs to preserve natural resources and amenities within its jurisdiction, the establishment of fish breeding programs and the National Parks policy, being good examples.<sup>259</sup> Moreover, as Benidickson has shown the Government of Ontario took steps to control and allocate water use to satisfy the needs of the hydro companies and the industrial interests which they served.<sup>260</sup> However, although water resource allocation schemes sometimes had ancillary environmental motivations, in particular to preserve riparians from flooding, there was lacking a general concept of management which had avoidance of pollution as its objective.<sup>261</sup> For provincial governments, the case-by-case evolution of the Common Law, occasionally limited by statute, the municipal by-laws, were the appropriate mediums for addressing pollution problems. The Federal Government "hung its hat" on the use of quasi-criminal prohibitions. It is true that the institutional mechanisms for dealing with water pollution at the Federal level had developed beyond the primitive stage of the pre-Confederation era. An inspectorate was firmly established which included amongst its functions the protection of the country's waterways from degradation. However, its formal powers, which were much wider in other fields relating to fisheries and shipping, were limited in the case of water pollution to enforcement by prosecution. Informally, of course, the local representatives of the Department of Marine and Fisheries often worked closely with the lumbering interests to achieve compliance without applying the heavy hand of the criminal law. Nevertheless, as we have seen, the official wisdom in the Department was that its officers had no obligation to advise or to assist the lumbermen in implementing change.<sup>262</sup> The responsibility of the mill owners was clear: to obey the law!

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<sup>259</sup>The reports of the Department of Marine and Fisheries are full of information on fish breeding programs during the 1880's and 1890's. For the development of a National Parks policy, see *supra*, n. 257.

<sup>260</sup>Benidickson, *op. cit.*, 387-402.

<sup>261</sup>*Ibid.*, 402-3 for an account of attempts to preserve the environment from the effects of flooding.

<sup>262</sup>*Supra*.

Without a more flexible regulatory and managerial regime it was impossible to institute changes on a broader, river system basis that would have helped to protect the eco-system more comprehensively and which would have encouraged cooperative initiatives between government and industry to facilitate improvement in the condition of waterways and water quality more speedily and more effectively.

Whatever the reasons for the limited notion of environmental control in the late nineteenth century, and it is understandable in the light of the youthful state of environmental science that a more comprehensive approach was not adopted, the pattern established then has demonstrated great durability. Regulating pollution by managing the general environment is a concept which has only emerged relatively recently in Canada. The appearance of other urgent problems, including war, depression and economic reconstruction, deflected the attention of Canadians away from environmental abuse for many decades. Moreover, any ardour which did exist for more sophisticated responses to pollution was undoubtedly blunted by consideration of the constitutional problems, real or imagined, implicit in such initiatives. The result was that the system of environmental regulation of water pollution worked out in the last quarter of the nineteenth century was to constitute the sole model of legislative pollution control in Canada until the 1960's. With the resurgence of interest in ways and means of combating environmental abuse in that decade, new approaches to pollution regulation and control regimes were actively canvassed. This process of rethinking had some effect on established Federal legislation on waterways and water pollution. The impact has, however, been limited. In the case of fisheries new provisions were added to the prohibitions already in the *Fisheries Act*, allowing the Minister to exercise some degree of regulatory control over operations which may cause or are already causing detriment to the quality of the water through the discharge of deleterious substances.<sup>263</sup> To date the power has rarely been used.<sup>264</sup> By contrast with fisheries legislation, the *Navigable Waters Protection Act* has remained largely untouched and continues to embrace a simple set of prohibitions which look very similar to their predecessors of ninety years ago.<sup>265</sup> Attempts to develop a more comprehensive notion of water management at the national level have proved moribund. The *Canada Water Act* which is a new enactment and very much the product of the environmental ferment of the 1960's promises the sort of comprehensive river and river basin regimes which are necessary to tackle system-wide pollution problems.<sup>266</sup> However, the spectre of constitutional challenge has effectively prevented its implementation. In the main then, the Federal authorities continue to rely on expedients which are familiar, constitutionally safe, but of rather limited

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<sup>263</sup>*Fisheries Act*, R.S.C. 1970, c. F-14, s.33.1(2), 33-3, as amended S.C. 1976-77, c.35, s.8.

<sup>264</sup>See R.T. Franson & A.R. Lucas, *Canadian Environmental Law*, Vol. 1, 1976, 483-2.

<sup>265</sup>R.S.C. 1970, c. N-19, ss. 19,25. Interestingly it is still possible to seek exemptions under the legislation, *ibid.*, s.21.

<sup>266</sup>R.S.C. 1970 (1st supp.) c.5. Franson & Lucas, *op. cit.*, 472-4.

impact in attempting to combat water pollution in the country's rivers and streams. The impetus for significant movement towards water management regimes has had to come from the provinces. The legislative and administrative mechanisms devised by the latter, however, have varied in sophistication and success depending on the seriousness with which individual provinces view the endeavour, and more particularly, whether environmental sensitivity outweighs pressure for industrial development in their thinking. There is by no means a consistent pattern of regulation and resolve across Canada.<sup>267</sup> Systems which rely on licensing mechanisms and prohibitions co-exist with advanced management structures. At the same time, regimes which are mere window dressing co-exist with those which are attended by relatively vigorous enforcement and administration.

Notwithstanding the changes in the law which have been wrought more recently the importance of those earlier attempts at environmental control and the commitment of those responsible for them should not be understated. Clemow, Prince and their contemporaries made a major contribution to the development of environmental practice and theory in this country. More especially they blunted the effect of a major environmental menace; firmly implanted in the law major statements of social policy on the unacceptability of abuse of the nation's waterways; and emphasized the importance of applying a broad notion of the public interest in considering the future of natural amenities. Although their focus may seem narrow from hindsight, it has provided a firm base for subsequent, more comprehensive and sophisticated developments, a process which is by no means complete. Ratté's dogged activism was not entirely in vain, nor is it a matter of purely antiquarian interest.

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<sup>267</sup>Franson & Lucas, *op. cit.*, 499-588.