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Michel F. Girard

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Résumé de l'article

Cet article fait état des liens entre l'histoire de la Commission de la conservation (1909-1921) et celle du Conseil national de recherches du Canada. Durant les années 1910, ces deux organisations ont lutté pour s'approprier des subventions fédérales dans le domaine de la recherche scientifique. L'auteur estime que la Commission de la conservation a été abolie en 1921 parce qu'elle persistait à promouvoir une vision du développement axée sur la conservation de l'environnement dans un monde qui ne s'intéressait plus à cette question.

THE COMMISSION OF CONSERVATION AS A FORERUNNER TO THE NATIONAL RESEARCH COUNCIL 1909-1921

Michel F. Girard¹

Abstract

This paper links the history of the Canadian Commission of Conservation (1909-1921) to the creation of the National Research Council through the fight between the two organizations for federal funds in scientific research. In my view, the Commission of Conservation (or COC) was abolished in 1921 because it persisted in advocating conservation, an expression of early 20th century environmentalism, in a world which was no longer interested in this issue.

Résumé

Cet article fait état des liens entre l'histoire de la Commission de la conservation (1909-1921) et celle du Conseil national de recherches du Canada. Durant les années 1910, ces deux organisations ont lutté pour s'approprier des subventions fédérales dans le domaine de la recherche scientifique. L'auteur estime que la Commission de la conservation a été abolie en 1921 parce qu'elle persistait à promouvoir une vision du développement axée sur la conservation de l'environnement dans un monde qui ne s'intéressait plus à cette question.

In the 1900s and 1910s, the principle of conservation of the natural environment and its resources was popular across the Western world. Indeed, the Commission of Conservation (COC) was formed to provide Canadian industries, farmers, loggers, fishermen and provincial officials with new tools to better husband resources. But the Commission did not get the full cooperation of the academics on its board and lacked the necessary funds to get involved in scientific research. When the federal government became interested in funding industrial research, the COC failed to get supplementary support from Ottawa.² Instead, the Honor-

1 Dept of History, University of Ottawa, Ottawa, Ont.

2 James Allum's MA thesis entitled 'Science, Government and Politics in the Abolition of the Commission of Conservation, 1909-1921' (Trent University, 1988), was my starting point. His views are that the Commission attempted to bridge science and policy, and that its involvement in scientific research was the main irritant which prompted Ottawa politicians and bureaucrats to abolish it. This difference of interpretation between Mr Allum and me can partly be explained by the difficulty of finding primary sources on the workings of the COC. The Commis-

ary Advisory Council on Scientific and Industrial Research was created.³ And in the early 1920s, following a disastrous war which changed the ideals and goals of a whole generation, reform and scientific research to achieve conservation were no longer acceptable objectives to the governments and the business class. Instead, science and research were increasingly regarded as instruments to provide fast and unlimited growth and escape from arduous times, rather than means to reach more down-to-earth objectives such as the conservation of the environment and sustainable development.⁴

The Creation of the Commission of Conservation

The birth of the conservation movement in the Western World sets the stage for the creation of the Canadian COC. All throughout the 1880s, the 1890s and the 1900s, it was gaining momentum in Europe.⁵ Although many historians since Samuel Hay's *Conservation and the Gospel of Efficiency* still define the North-American movement strictly in utilitarian and business-like terms, a growing body of research suggests that its members were worried about all facets of environmental degradation occurring at the time: wildlife preservation; concerns

sion published about 200 reports, but its records were destroyed. Fortunately, numerous members and specialists contributed to its work and some kept their files. The task was therefore to build a database of all of the Commission's members as well as the specialists who collaborated with its various committees, about 300 individuals, and to search for their archives.

- 3 In this article, the Honorary Advisory Council on Scientific and Industrial Research will be referred to as its latter metamorphosis, the National Research Council (NRC).
- 4 The main archives used for this research are: National Archives of Canada [NAC], Papers of Wilfrid Laurier, MG 26 G1; Robert L. Borden, MG 2 6 H; Arthur Meighen, MG 26 I; Clifford Sifton, MG 27 D 15. PEI Provincial Archives, Aubin Arsenault, RG 25. 24 vol. 1, Commission of Conservation file; Archives du Séminaire de Saint-Hyacinthe, Mgr Charles-P. Choquette, Correspondence, Journal, FG1, dossier 311; Archives of the University of Alberta, Papers of Henry Marshall Tory, Commission of Conservation file; Archives of the University of New Brunswick, Papers of Dr Cecil C. Jones, Commission of Conservation file; McGill University Archives, Papers of Frank D. Adams, MG 1014, Records of the Vice-Principal, C1-C25; University of Toronto Archives, Papers of B. E. Fernow, A75-0025, boxes # 41, 52, 53, 134-136, 173-175, 186-195, 209.
- 5 With the Enlightenment, environmentalism became organized in Europe as national groups, organizations and State departments emerged. For good national accounts please note: D. G. Charlton, *New Images of the Natural in France* (Cambridge, 1984); Andrée Corvol, *L'homme aux bois: histoire des relations de l'homme et la forêt* (Paris, 1987); Robin W. Douhly, *Feather Fashions and Bird Preservation: A Study in Nature Protection* (Berkeley, 1975); Keith Thomas, *Man and the Natural World* (Cambridge, 1984); Donald Worster, *Nature's Economy* (San Francisco, 1977).

about water pollution's impact on fish and human life; air pollution and its impact on health; soil erosion; the relationship between deforestation and changes in the hydrographic network, etc.⁶

The political leaders in Ottawa at the turn of the 20th century were the best equipped to understand the breadth and the scope of environmental degradation underway in the history of this country. Many of them were interested in natural history, those devoted, even passionate individuals who are the ancestors of modern ecologists.⁷ Prime Minister Wilfrid Laurier for example, was keenly interested in ornithology and fiercely against hunting and fishing, activities he defined as slaughter and killing.⁸ Prime Minister Borden's skills as a plant naturalist were outstanding: he grew more than one hundred species of native North-American plants in the gardens of his Ottawa home.⁹ As leader of the opposition, he frequently called for better husbanding of resources.¹⁰ A firm believer in the preservation of the environment, he routinely corresponded with Lord Grey about bird observations and badgered federal and provincial forestry officials about the poor management of Canadian forests up to the late 1930s.¹¹ Sydney Fisher, the federal Minister of Agriculture during most of the Laurier's years and Henri Joly de Lotbinière, who spearheaded the conservation movement in the 1880s and held various ministries in Ottawa before being named Lieutenant-Governor of BC, were certainly as environmentally aware as their leader.¹² Together with Clifford Sifton, who had demonstrated as Minister of the

- 6 Michel F. Girard, 'Conservation and the Gospel of Efficiency : un modèle de gestion de l'environnement venu d'Europe?' *Histoire sociale* 23:45 (mai 1990), 63-79.
- 7 Pascal Acot, *Histoire de l'écologie* (Paris, 1988).
- 8 Arthur R. Ford, *As the World Wags On* (Toronto, 1950), 134; NAC, Laurier Papers, MG 26 G1, Laurier to W. J. Taylor, Editor of *Rod and Gun*, 1909-06-03, C877, p. 156421-24.
- 9 Arthur V. Ford, *ibid.*, 141.
- 10 Robert Laird Borden, *Memoirs* (Toronto, 1938), 240; Canada, Parlement, Chambre des Communes, *Débats* (1906-05-06), 2834-2854; (1906-05-08), 2870; (1909-01-22), 1718-1719.
- 11 See for example NAC, Borden Papers, Correspondence between Lord Grey of Fallodon and Borden, 1931-1932, C4432, pp. 152637-40; 152 661-663. On forestry matters see Borden to R. D. Craig, Canadian Forestry Service, 1937-04-24, C4427, pp. 147571-74. A few months after the abolition of the Commission, Borden sent a letter to all provincial premiers, suggesting them to establish provincial conservation commissions. He proposed they get in touch with Louisiana State Conservation Commission as it was doing outstanding work at husbanding its resources. NAC, Borden Papers, 1921-11, C4436, pp. 156565-77.
- 12 Fisher was a long-time member and executive of the Canadian Forestry Association and owner of a 'model' farm at Knowlton, Quebec. For Lotbinière's contribution to conservation, see Michel F. Girard, 'La forêt dénaturée: les discours sur la conservation de la forêt québécoise

Interior his grasp of the workings of the natural environment in a systemic, almost ecological way, these politicians' concerns with, and knowledge of the environment have yet to be matched to this day.¹³

However, it was and it remains a difficult task for federal politicians to establish nation-wide environmental protection measures. The BNA Act states that provinces are responsible for the management of most natural resources. This contributed to confusion as to Ottawa's role in environmental management.¹⁴ In 1909, soon to depart US President Theodore Roosevelt (who incidentally graduated with a BA in natural history from Harvard before taking up law), offered a way for Ottawa to get involved in environmental issues by calling for a North-American conference on the conservation of natural resources.¹⁵ Laurier gladly accepted Roosevelt's invitation and named Fisher, Sifton and Henri S. B eland, a MP from Beauce (Qu ebec) well known for his involvement in public health matters, to attend the February 1909 conference.¹⁶ Less than three months after the delegation returned from Washington, Fisher introduced Bill 158 establishing the Commission of Conservation. Parliament passed the Conservation Act with the unanimous approval of the House, thanks to Borden's personal endorsement of the proposed legislation.¹⁷

au tournant du XXe si cle,' (MA Thesis, University of Ottawa, 1988), chapter 1; Donald Mackay, *Un patrimoine en p ril: la crise des for ts canadiennes* (Qu ebec, 1984), 38-41, 42, 54, 58.

- 13 For Sifton's outlook on environmental issues, see D. G. Hall, *Clifford Sifton: A Lonely Eminence* (Vancouver, 1985), chapter 11; Peter Gillis, *Lost Initiatives* (Westport, CT, 1986), chapter 3.
- 14 Canada, *Sessional Papers*, 1867, AANB, section 92.5.
- 15 NAC, Laurier Papers, T. Roosevelt to W. Laurier, 1908-12-24, C871, pp 149351-149353. For a good account of Roosevelt's interest in natural history see Paul Russel Cutright, *Theodore Roosevelt: The Making of a Conservationist* (Chicago, 1985).
- 16 NAC, Laurier Papers, W. Laurier to T. Roosevelt, 1908-12-30, C871, p. 149354. The delegates produced a Declaration of Principles. This was the blueprint for the creation of the Canadian Commission of Conservation. NAC, Laurier Papers, Robert E. Young to Laurier, 1910-03-31, C785, pp. 154206-215.
- 17 Some Conservative MPs like F. D. Monk, H. Lennox, C. Boyce and Sir George Foster questioned the wisdom of the bill because they felt this work would be better done by parliamentary committees of the House. Others such as H. B. Ames, James Arthur, T. S. Sproule questioned the wisdom of interfering with provincial responsibilities. Lennox and Foster also worried about duplication of efforts between the proposed Commission and other existing departments. Incidentally, Foster will be a key player in the abolition of the Commission 12 years later. Monk's enthusiasm for conservation got him noticed and he was named chairman of the water and water powers committee. See House of Commons, *Debates*, 12 May 1909.

The Commission was designed as a non-partisan organization with a strictly advisory role. Its members were requested to ascertain which environmental problems were pressing enough to warrant investigation. The permanent staff of the Commission would then contract out the necessary research, publish the results and make recommendations to the federal cabinet or provincial governments. The law creating the Commission called for twenty members to be chosen from academics and businessmen concerned about the issue of conservation. A dozen *ex-officio* members were to represent the provincial governments and the federal departments of the Interior and Agriculture.¹⁸ All members of the Commission were expected to join in and participate in the deliberations of one or two of its seven committees: mines, waters and hydro power, lands, forests, public health, fish, game and fur-bearing animals and a public relations and publications committee.

James White was officially appointed as the Secretary of the Commission in October 1909.¹⁹ The Chief Geographer of the Dominion had kept a good working relationship with Sifton, who hired him in 1899 while Minister of the Interior, even after Sifton's resignation in 1905. White had a very good knowledge of the geography of the Dominion and was a devoted conservationist.²⁰

The Secretary of the Commission had to coordinate and manage the various tasks undertaken by the Commission. Although humble at first, his budgets grew substantially before and just after World War I, as Table I shows:

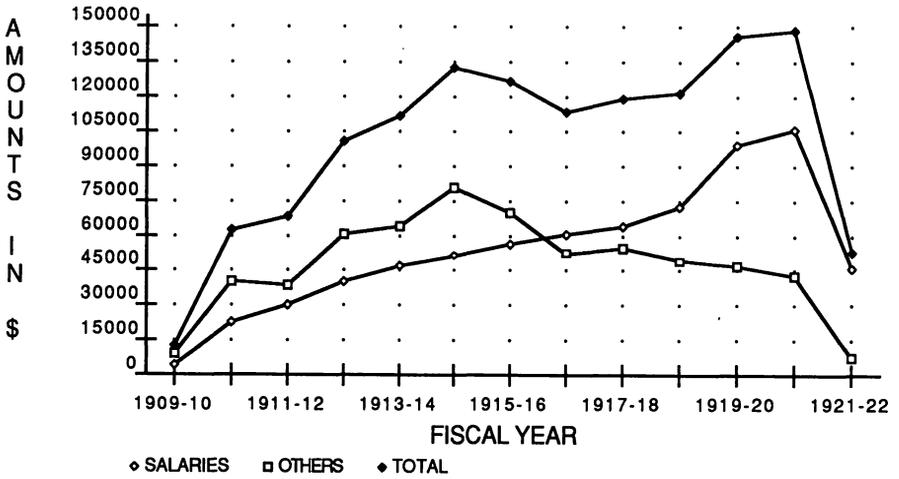
Staff at his disposal followed the same trend although reliance on part-time and contract employees increased over the years, as indicated in Table II.

18 **Commission of Conservation, Annual Report [CCAR], 1910.** Laurier invited provinces to consider the creation of their own commissions of conservation. He suggested that their involvement with the federal commission would help them identifying their needs but that it was essential for them to create their own conservation bodies. NAC, Laurier Papers, Laurier to Gouin, 1909-06-09, C879, pp. 158 411-158412.

19 NAC, Sifton Papers, White to Sifton, 1909-10-25, C588, p.153947.

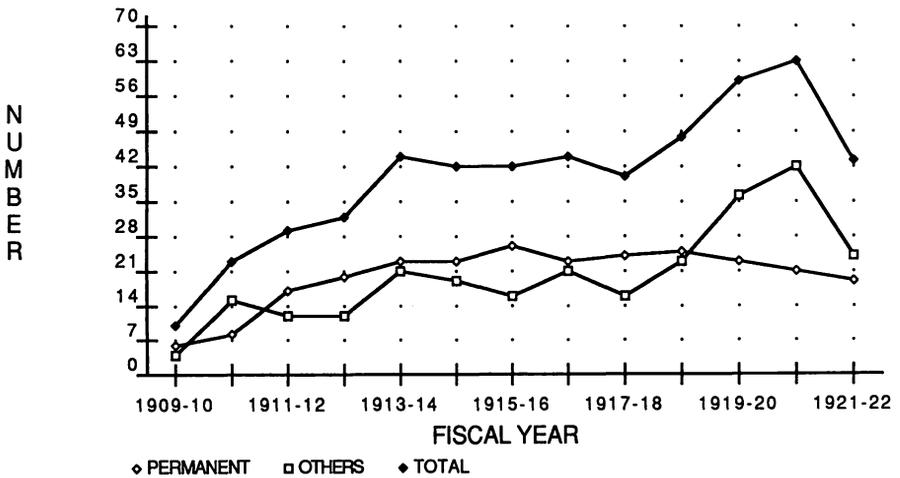
20 He coordinated the drawing of Canada's first standardized maps for the whole Dominion, had the first **Atlas of Canada** published and completed research for publishing the first **Dictionary of Altitudes of Canada**.

Table I
COC, operating budgets, 1909-1922



Source: Canada, Sessional Papers, *Report of the Auditor General*, Department of Agriculture: COC, 1909-1922.

Table II
COC, number of employees, 1909-1922



Source: Canada, Sessional Papers, *Report of the Auditor General*, Department of Agriculture: COC, 1909-1922.

Three Objectives for Six Committees

The Commission was designed to promote three distinct objectives with regards to environmental management. Sifton, who had made up his mind before the Commission was even formed, clearly outlined them during its inaugural meeting in January 1910.²¹ The first objective was to promote efficiency and to eliminate waste in the extraction, transportation and consumption of non-renewable resources.

While acknowledging the necessity of using known and available inert resources for Canada's development, Sifton was outraged at the waste occurring in most mining operations.²² Throughout its mandate, the Commission followed Sifton's advice, collaborated with various federal and provincial departments and asked that funds be provided for research in this field. The committee on mines recommended that experiments be made in the field of electric generated furnaces for smelting various minerals on site rather than exporting them to the United States, and to coordinate research to find ways of using and transforming low-grade and complex minerals, etc.²³ On the energy issue, members of the committee felt that importing coal, a 'non-renewable and polluting fuel' for industrial and residential uses from the United States, was as wasteful. They promoted research in the use of peat, natural gas, lignite, wind power, solar power and even sunflower oil as possible replacement fuels to coal.²⁴

By 1912, the Committee on mines was promoting what I would term an 'environment-friendly' industrial strategy: striving to use all known by-products created by industrial operations. This was to be achieved by putting in place a national

21 CCAR 1910, Inaugural Address by the Chairman, 3-26.

22 Ibid, 9.

23 Eugene Haanel, *Recent Advances in the Construction of Electric Furnaces for the Production of Pig Iron, Steel and Zinc* (Ottawa, 1910); Commission de la conservation, *Rapport annuel* [CCRA], 1911, 6; NAC, Laurier Papers, Sifton to Laurier, 1909-12-14, C884, pp. 163641-43; W. J. Dick, 'Lois et réglements miniers,' in *Terres, Pêcheries, Gibier et Minéraux* (Ottawa, 1912), 449; CCRA, 1917, 31; CCRA, 1918, 16; 'Electric Smelting is Now a Reality,' *Conservation* 2 (1918), 8; Eugene Haanel, 'L'utilisation de quelques ressources minérales non métalliques suggérée par les conditions présentes,' CCRA, 1915, 37.

24 *Conservation* I:2 (avril 1912), 2; W. J. Dick, *Conservation de la houille au Canada* (Ottawa, 1914); CCRA, 1918, 35-37; W. J. Dick, 'La conservation des ressources minières,' *Terres, Pêcheries, Gibier et Minéraux*, 496-50; Frank D. Adams, 'Nos ressources minérales et le problème de leur bonne conservation,' CCRA, 1915, 66; 'Lignite Briquettes or Imported Coal? [lignite] Would be Advantageous for Western Canada which Imports its Coal from the United States,' *Conservation* I:3 (May 1912), 4; CCRA, 1915, 59; CCAR, 1910, 55; CCRA, 1917, 31.

inventory of by-products for each major industry operating in the Dominion and circulating the information from one industry to another through a network the COC proposed to coordinate.²⁵

The water and hydro power committee promoted the development of this source of renewable energy by coordinating the mapping of the hydrographic network in various areas of the country at the request of the provinces.²⁶ But the Committee was extremely cautious in its assessments of Canada's hydro-electrical potential. First, it acknowledged that water was a public resource and that the rights of every user had to be respected. In 1911, one can read in the COC's first report on water power in Canada: 'The development of hydro-power is one of the greatest use which we can make of our river system. However, we should not exaggerate this to the point of hindering other equally important uses [...] such as navigation, agriculture and domestic water needs.'²⁷ Second, it promoted limited hydro development and was opposed to megaprojects which would flood large areas. In fact, the COC much preferred the development of many small dams rather than a few big ones.²⁸ 'The greatest dangers which are menacing not only this country but also the world, is the severing of the balance that Nature seeks to maintain,' wrote White in 1911.²⁹ And it was felt that big dams could affect Nature's balance much more than small ones.

The Committee's most important and best known battles were fought at the political level to oppose the export of Canadian electricity to American manufacturing plants and the damming of Canadian waters and rivers by American interests.³⁰ In fact, most of the Commission's recommendations espoused the

- 25 'Utilization of By-Products: An Important Feature of Industry,' *Conservation* I:7 (November 1912), 2; 'Preventing Waste in Wood Industries: By-Products may be Put to Numerous and Various Uses,' *ibid.* (September 1918), 34.
- 26 L. G. Denis and A. V. White, *Water Powers of Canada* (Ottawa, 1911); Léo Denis and J. B. Challies, *Water Powers of Manitoba, Saskatchewan and Alberta* (Ottawa, 1916); Arthur V. White, *Water Powers of British Columbia* (Ottawa, 1919).
- 27 COC, *Les forces hydrauliques du Canada* (Ottawa, 1911), 1.
- 28 See for example 'An Efficient Farm Power: Something about the Electric Plant of an Ontario Farmer,' *Conservation* II:3 (Feb. 1913), 1.
- 29 COC, *Les forces hydrauliques du Canada* (Ottawa, 1911), 2.
- 30 Arthur V. White, *Long-Sault Rapids, St. Lawrence River* (Ottawa, 1913); 'La Long Sault Development Company - Opinion de la Cour suprême des États-Unis,' CCRA, 1917, 318-322; COC, *Statement of the COC in response to the Application of the St. Lawrence River Power Company* (Ottawa, 1918); Arthur V. White, *Niagara Water Power Shortage* (Ottawa, 1917); W. J. Dick. 'Nos forces hydrauliques et le développement industriel,' CCRA, 1917, 191-201.

creed of economic nationalism: Canada's natural resources, including water powers, would be better cared for when harvested and transformed here.³¹

The second objective put forward by Sifton and the Commission was the conservation and wise use of renewable resources such as the land, the water and the forests. The Committee on lands for example, established model farms across the country in order to undertake experiments of new farming techniques with local farmers.³² Members of the committee consistently asked for new research in the areas of organic soil fertilization, seed improvement and soil erosion management techniques.³³ The committee on public health wanted to promote the efficient use of water. It requested research to find ways of recycling sewage into agricultural fertilizers and repeatedly asked for laws to force all municipalities and industries to clean up all their fouled water and effluents. It compiled information on the existing sewage treatment facilities and distributed the information to Canadian municipalities, hoping this would help them choose and build a system suited to their needs.³⁴ It promoted the use of water meters and hoped to establish national standards for water and air quality.³⁵ It even suggested industrial research and legislation regarding the use of toxic products and the disposal of solid waste.³⁶

- 31 When confronted with the issue of a free trade pact with the United States, Sifton resigned from the Liberal Party. Among other things, he felt Canada would rapidly lose all control over the management of its natural resources. See CCAR, 1910, p. 28; Clifford Sifton, 'The Conservation of Natural Resources,' 20 October 1910, taken from J. Castell Hopkins, ed., *Empire Club Speeches, 1910-1911* (Toronto, 1911), 61-62; Halifax, *Morning Chronicle*, 22 February 1910; Montreal, *The Gazette*, 24 February 1910.
- 32 CCAR, 1910, 65; CCRA, 1912, 15-16; CCRA, 1912, 94; CCRA, 1913, 183.
- 33 See F. C. Nunnick and J. W. Robertson, *Agriculture in Canada* (Ottawa, 1910); CCRA, 1911, 9-10; 'Recensement agricole 1910,' in *Terres, pêcheries, minéraux* (Ottawa, 1911), 1-20; *Agricultural Survey, 1912* (Ottawa, 1912); *Agricultural Survey, 1913* (Ottawa, 1913).
- 34 Léo Denis, *Systèmes de distribution d'eau au Canada* (Ottawa, 1912); Léo Denis, *Services d'eau et systèmes d'égouts* (Ottawa, 1916); 'Treatment of Sewage Facilitated: Many Disposal Plants Being Installed, Great Need for Improvement,' *Conservation* V:7 (July 1916), 1.
- 35 'Water Waste in Cities: Metering as a Preventive...,' *Conservation* II:3 (April 1913), 2; 'Water Meters and Sanitation: Not Intended to Curtail Use of Water but to Stop Waste,' *ibid.* IV:11 (November 1915), 4; C. A. Hodgetts, *Pure Water and the Pollution of Waterways* (Ottawa, 1910); *Refuse Collection and Disposal* (Ottawa, 1913); T. A. Murray, *Prevention of the Pollution of Canadian Surface Waters* (Ottawa, 1912); 'The Smoke Nuisance, Something About the Causes - The Cottrell Process as a Remedy,' *Conservation* I:6 (October 1912), 1; Raymond C. Benner, 'Les méfaits de la fumée,' CCRA, 1913, 198.
- 36 'Dangers in the Use of Lead in Paint - Substitute Should be Found,' *Conservation* I:6 (October 1912), 1; CCRA, 1914, 26.

The forest committee had two main roles to play: first, to devise and carry-on efficient and reliable methods for forest surveys across the country where it has not been done yet by the provinces, and second to promote research in forest management and harvesting technologies. At the time Canadians had no idea of the size and the composition of Canada's forest cover. A standardized inventory was essential to establish a comprehensive forest conservation program which would take into consideration patterns of market demand, the quantity of available trees remaining and growth rates in various areas. Only with such figures would it be possible to reach national sustain yield objectives.³⁷

Then as now, environmentalists did not agree on which harvesting techniques were best to preserve the environment. Bernhard E. Fernow for example, the German-trained Dean of the faculty of forestry at the University of Toronto, promoted clear-cutting on small areas followed by intensive reforestation.³⁸ Fernow frequently pointed out that the debris left by loggers were an invitation to forest fires and that only clear-cutting techniques allowed them to burn the wastes safely. Other committee members like conservationist lumberman William Cameron Edwards balked at the idea of clear-cutting and wanted strict diameter-limit regulations and enforcement to preserve the forest capacity to regenerate itself.³⁹ Everyone agreed however that more silvicultural research was essential to help determine the conditions for which each method would be best suited.⁴⁰ In 1916 for example, the Commission pushed for the establishment of a forest research laboratory for British Columbia not unlike the one created at McGill University to help foresters there.⁴¹ Other issues, such as saw dust recycling, wood preservation, wood substitutes for housing and building construction; tech-

37 B. E. Fernow, CCAR, 1910, 33-44. Fernow perfected his inventory techniques for Canadian forests in 1909 in Nova Scotia. See *Forest Conditions of Nova Scotia* (Ottawa, 1912); Clifton D. Howe et J. H. White, *Examen du bassin du Trent* (Ottawa, 1913); Clifton D. Howe, 'Reboisement sur certaines terres à bois de pâte à papier dans Québec,' CCRA, 1918, pp-54-71; H. N. Whitford and R. D. Craig, *Forests of British Columbia* (Ottawa, 1919).

38 CCAR, 1910, 33-44; B. E. Fernow, 'Problèmes sylvicoles sur les réserves forestières,' CCRA, 1916, 70-85.

39 See for example Canadian Forestry Association, *Annual Report, 1906*, Speech by W. C. Edwards; NAC, Laurier Papers, W. C. Edwards to W. Laurier, 1908-04-18, C861, pp. 139217-139218 and especially Edwards to Laurier, 1908-04-27, C862, pp. 139669-139671; Clyde Leavitt, 'Incendies de forêt et problème de la destruction des branchages,' in *Protection des forêts au Canada, 1912* (Ottawa, 1913).

40 Clyde Leavitt, *Protection des forêts au Canada, 1913-1914* (Ottawa, 1915).

41 University of Toronto Archives, Fernow Papers, box no. 189, Roland D. Craig and Clyde Leavitt to M. A. Grainger, BC Acting Chief Forester, 1917-01-09.

nical means of stopping spark-spitting steam locomotives from burning the forests around their right-of-way; and newspaper recycling as a means of saving Canada's forests were also recommended.⁴²

The third objective put forward was related to fish, game and wildlife. The Commissioners, aware of the rapid decline among many species, recommended the restoration of populations of endangered species when possible as well as the protection of sensitive areas for wildlife, fowl and commercial species of fish and fur-bearing animals. There was pressing need for research and experimentation in the areas of restocking fish populations.⁴³ The committee on fish, game and fur-bearing animals mostly attracted preservationists and their work resulted in significant achievements in policy.⁴⁴

Three Strategies to Reach Conservation

Soon after the Commission started its work, James White and his staff identified three strategies to reach the stated objectives. First and foremost was the need for policy research and recommendations for policy changes. Laws, regulations and enforcement mechanisms regarding conservation varied considerably from one province to another, which prompted Commissioners to call for standardization of legislation. Sifton argued that many conservation problems were simply a result of bad management and could be addressed through the introduction of intelligent legislation.⁴⁵ Between 1910 and 1921, the Commission played an important role in this area, perhaps because it did not require extensive funding.

42 NAC, Sifton Papers, Edwards to Sifton, 1916-07-26, pp. 160907-09; Henry K. Wicksteed, 'Conservation des traverses de chemins de fer,' CCRA, 1915, 80-85; J. Grove Smith, *Fire Waste in Canada* (Ottawa, 1918); Clyde Leavitt, 'Protection contre les incendies des chemins de fer,' dans *Protection forestière au Canada, 1912* (Ottawa, 1913), 1-40; 'Save your Waste Paper: Heavy Drain Upon Canada's Forests to Replace Paper Material Lost Through Waste,' *Conservation* (April 1916), 15.

43 Among the 46 reports published by the Commission on wildlife, fish and fur bearing animals, the following are representative of its best work: *Pêcheries maritimes de l'est du Canada* (Ottawa, 1912); *Conservation of Fish, Birds and Game* (Ottawa, 1916); J. B. Fielding, *Utilization of Fish Waste in Canada* (Ottawa, 1917); J. W. Jones, *Fur Farming in Canada* (Ottawa, 1913); Joseph Stafford, *The Canadian Oyster: Its Development, Environment and Culture* (Ottawa, 1913); Gordon Hewitt, *Conservation of Wildlife in Canada* (Ottawa, 1921).

44 See Janet Foster's *Working for Wildlife* (Toronto, 1977), 133-34, 138, 170-77, 189-92, 197, 200-209.

45 CCAR, 1910, Sifton's address, 3.

Although it is difficult to ascertain how successful the Commission was in influencing government policy, when it blew the whistle, government officials were generally quick to respond.⁴⁶

The second strategy was coordinating and distributing the information gathered on various natural resources of the Dominion. By doing so, James White hoped the Commission would educate the various publics and officials that Canada's resources were not inexhaustible and convince them of the benefits of conservation. During his thirteen years at the helm, White was able to get about 200 reports published at very low costs to the government. Most reports provided new information on resource inventories and on-going research on various projects. White was also able to get his staff to issue monthly magazines: *Conservation* was published in both languages with a circulation of about 12,000 copies. It is fair to say that through its publications and publicity work, the Commission was able to muster considerable sympathy and support from the Canadian public and media.⁴⁷

The third strategy was not successful. It was the coordinating of scientific and technical research to find solutions to the various problems identified by the Commission. From the beginnings, Sifton had hoped that all the academics who had joined the Commission would have been able to cooperate and provide both the research facilities and staff.⁴⁸ But he and White soon discovered that with the possible exception of B. E. Fernow, none of the university members were willing or able to address the Commission's needs for research. In fact, careful

46 Sifton seemed to have alerted Borden of the urgency to intervene in the matters of the proposed damming of the Long-Sault Rapids by the St Lawrence Power Company, an American firm, and the Chicago Drainage Canal project. See NAC, Borden Papers, Sifton to Borden, 1912-01-23, Sifton to Borden, C4378, p. 95102; 1912-01-29, Sifton to Borden, C4378, p. 95104; White to Borden, 1913-01-11, C4378, pp. 95159-62.

47 Among best feature articles on the Commission of Conservation, see: 'The Driving Power of Conservation: A Sketch of the Work Performed by the COC in Canada,' *Saturday Night*, 1 January 1921, 8-14; John Dafoe, 'Not Interested in Oil Lands,' *Manitoba Free Press*, 18 June 1917; 'Saving Dominion Riches for Posterity,' *The Daily Colonist*, June 1917; 'Fuel Problems of Western Canada Near Solution,' *Montreal, The Gazette*, 16 Dec. 1919; 'Canada's Natural Wealth, How to Preserve it,' *Toronto, The Globe*, 22 January 1910, 17-18; 'The Commission of Conservation,' *Saturday Night*, 22 January 1910, 3; 'Conservation of Natural Resources,' *Montreal Daily Star*, 9 Jan. 1911, 60-61; 'The Problems of Conservation,' *The Globe*, 24 May 1921, 4 and 'The Commission of Conservation's Work,' *The Globe*, 31 Dec. 1919, 6.

48 'Other provisions requiring the appointment of members from the Universities, provide for the presence of a considerable proportion of men who have attained distinction in connection with our scholastic institutions. It is therefore evident that the Parliament has legislated with the object of securing upon the Commission a high degree of scholarship, of scientific knowledge and of administrative experience in order to ensure the work being successfully undertaken.' Opening Address, Clifford Sifton, CCAR, 1910, 3.

review of the correspondence indicate that the academic members of the Commission viewed their role as purely advisory. Henry M. Tory for example, who had been a member of the lands committee from 1909 to 1921 and was the President of the University of Alberta, did not collaborate with the research activities of the Commission.⁴⁹ As for Dr James Robertson, the chairman of the lands committee, he began his term while Director of Macdonald College. But he soon left McGill University to become President of the Commission on Technical Education. This was a most unfortunate event for the Commission because Robertson's ideas and plans for research on conservation were by far the most advanced among the academics. At the first annual meeting of the Commission, he submitted an ambitious research agenda:

We have made some headway at Macdonald College in considering the application of wind-power to the heating of home on the prairie where the wind blows twenty hours a day. Can it not be turned into mechanical or electrical energy to give heat units to warm and light the house? [...] Cannot we grow special crops that will provide fuel close by? Maybe we can improve the sunflower until the stalks give us fuel close by? Maybe an intelligent application of research and labour will enable us to utilize and conserve these resources.⁵⁰

Almost no funding had been made available to academic members by universities for conservation research. Sifton became frustrated by what he perceived as a lack of commitment of most academic members of the Commission. His correspondence is replete with negative comments about those who preferred to escape to their ivory towers rather than resolve the problems uncovered by the Commission's various committees.⁵¹ Beside Bernard E. Fernow, Sifton appreciated the help of only one other academic: Frank D. Adams, who joined the mines and minerals committee in 1913 as its president. Adams' zeal for conservation while at the COC was commendable. For example, he spoke against air pollution in cities: 'It disfigures buildings, is detrimental to people's health, brings filth to the city, destroys its natural beauty and tends to make it a sordid

49 Tory attended about half of the annual meetings of the Commission in Ottawa. His input from Edmonton seemed limited to advice he was willing to give on agricultural matters and on possible fora for Commission members on speaking tours in the West. See University of Alberta Archives, Tory Papers, Commission of Conservation file.

50 CCAR, 1910, 55.

51 See Sifton's comment at the October 1910 Dominion Public Health Conference, CCRA, 1911, 120-125; D. J. Hall, *Clifford Sifton: A Lonely Eminence*, 254, 258.

place to live in.⁵³ In 1915 he asked in no uncertain terms that the COC find money for Canadian scientists to resolve this urgent problem.⁵⁴

As a member of the agriculture committee, Adams also realized that one of the most pressing problem facing Canadian farmers was the constant decrease in soil fertility. Rather than simply make recommendations to the federal government stressing the need for more research, he took some bold steps and used the services of the mining engineer of the Commission, W. J. Dick, and went on a research trip to the Rockies.⁵⁵ There they discovered phosphate of lime which was desperately needed since the United States had forbidden the exportation of their fertilizers at the beginning of World War I.⁵⁶ Sifton was elated with this discovery and hoped that other members of the Commission would follow this example.

Adams' approach however, was not appreciated by everyone. James White found it ironic that this discovery by members of the COC would pave the way for exploration and development on the East slope of the Rockies. Indeed, the Commission repeatedly asked for and obtained the preservation of these forests in the early 1910s because they act as the watershed for the main rivers of the semi-desert plains of Alberta and Saskatchewan.⁵⁷ Moreover, Robertson, was against the use of artificial fertilizers. He promoted the use of green compost and manure to increase soil fertility and was afraid that artificial fertilizers would increase the salinity of Canadian soils. He thus resented Adams' interference in his work.⁵⁸

- 53 Frank D. Adams, 'Nos ressources minérales et le problème de leur bonne conservation,' CCRA, 1915, 67.
- 54 'Il n'est pas facile d'arriver trouver les moyens voulus pour diminuer la somme de fumée qui s'échappe dans l'atmosphère de nos grandes villes canadiennes, mais il est temps que la Commission de la conservation fasse une étude minutieuse de la question, et s'assure, pour le bien de nos habitants des villes de ce que l'on peut faire pour empêcher la contamination de l'atmosphère.' Frank D. Adams, 'Nos ressources minérales et le problème de leur bonne conservation,' CCRA, 1915, 66.
- 55 W.J. Dick, 'Le travail du comité des minéraux,' CCRA, 1916, 116, 119; Frank D. Adams, 'Problèmes concernant l'industrie minérale du Canada,' *ibid.*, 1917, 274-80.
- 56 McGill University Archives, Papers of Frank D. Adams, c1-c25; **Our Mineral Resources and their Proper Conservation** (Ottawa, 1915); F. D. Adams and W. J. Dick, **Discovery of Phosphate of Lime in the Rocky Mountains** (Ottawa, 1916).
- 57 CCRA, 1911, 5; 1-2 George V, chapter 10; CCRA, 1912, 23; Clyde Leavitt, **Protection des forêts au Canada, 1913-1914** (Ottawa, 1915), 86.
- 58 'Ce qu'il nous faut maintenant au Canada c'est de l'humus et des fibres végétales dans le sol, ainsi que de l'azote, et on peut obtenir tout cela facilement au moyen du trèfle, de la luzerne et

Competition from the NRC

In 1915 and 1916, while other industrialists and scientists were lobbying Trade and Commerce Minister Sir George Foster for a commission on industrial research, Sifton went directly to the Prime Minister. From the correspondence on this subject between the two men, it appears that the Order-in-Council of 6 June 1916 creating the Honorary Advisory Council on Scientific and Industrial Research, the first step towards the creation of the NRC was drafted following consultation with Sifton. In a letter sent to his senior ministers, Borden explained how Sifton influenced his views on the subject of industrial research in Canada:

I have signed the Order-in-Council with regard to the Scientific and Industrial Research work. Sir Clifford Sifton spoke to me some time ago and expressed the apprehension that too much reliance would be placed upon the work of Universities. He considers that research of a thoroughly important character cannot be performed by men who are devoting the chief part of their time, ability and energies to other duties as lecturers or instructors, etc. It is his opinion that research work should be conducted upon a national scale and in institutions established and maintained by the Government. He admits that the cost would be great as the best experts in the world would have to be engaged; but on the other hand he considers that there is of use in doing the work on a small scale or in an inefficient manner.⁵⁹

What Sifton had in mind was not a new scientific organization that would compete with the COC, but Ottawa's acknowledgement to add this new responsibility, along with the necessary funds, under the COC's umbrella. When pressed by Borden for his advice in May 1916, he suggested that, owing to the country's involvement with the war effort, it would perhaps be preferable to wait until the end of the fighting 'to do this in a professional manner.'⁶⁰ Borden did not wait and the NRC was formed and right from the beginnings its mission, as reported in Wilfrid Eggleston's book on the NRC, was directly competing with the research agenda which the Commission set up for itself before the war:

They were to organize, mobilize and encourage existing research agencies in Canada, so as utilize waste products, discover new processes and exploit unused national resources [...] They were to take stock of Canada's "common unused resources wastes and by-products" with an eye to their early utilization, etc.⁶¹

de ces choses qui conviennent aux produits de la ferme.' J. W. Robertson, CCRA, 1916, 122.

59 NAC, Borden Papers, Borden to P. E. Blondin, 1916-06-05, vol. 209, pp. 117961-62.

60 Ibid., Sifton to Borden, 1916-05-16, vol. 209, pp. 117945-46; CCRA, 1912, 13-15.

In contrast, the following research projects were quite familiar to the staff of the COC by 1916: better ways to use peat, use of fish wastes for fertilizer, utilization of low grade and complex ores, utilization of new furnaces for casting reusable by-products, uses of wastes from tanneries and saw mills and use of Canadian rather than imported clays for firebrick and refractory linings for furnaces, etc.⁶² It would be interesting to know more about Frank D. Adams' early contribution to the NRC's agenda, because he was a member of both organizations and was actively involved in the COC forest committee, the lands committee and the water and water power committee.

The creation of the NRC and the nomination of Adams to its board may have upset Sifton, but in 1916 and 1917, this did not seem to affect his relationship with him. In 1916 for example, in a clear rebuff to James White, he asked Adams to write a chapter on the role of the COC in managing natural resources, which appeared in the J. O. Millar's best seller *The New Era in Canada*. It was not simply a coincidence that Adams' article entitled 'Our National Heritage,' immediately followed Sifton's essay on the political and constitutional future of the Dominion.⁶³ Sifton made significant efforts to keep a good working relationship with this rising star.

In January 1917, Sifton, who was in England, sent a statement to be read at the annual meeting of the Commission. In it, he asked the members of the COC to go on the offensive. He stated that the propaganda mission of the Commission had to be set aside, since Canadians now realized the importance of finding new ways to conserve resources. Members of the Commission, he urged, must now compete against other organizations and commissions created by the Government. 'Amateur work is no longer of any value,' Sifton explained. 'We require to have a corps of the brightest and best young scientific students trained in all the scientific knowledge upon which the great basic industries of the world have been built up.'⁶⁴

But the COC failed to persuade itself and the government that it was the best organization to coordinate industrial research. The following year, members of the NRC were able to convince Sir George Foster to introduce Bill 83, which made

61 Wilfrid Eggleston, *National Research In Canada: The National Research Council, 1916-1966* (Toronto, 1978), 4.

62 *Ibid.*, 5-6.

63 J. O. Millar, *The New Era in Canada: Essays Dealing with the Upbuilding of the Canadian Commonwealth* (Toronto, 1917), 37-99.

64 CCRA, 1917, 1-2.

official its status and made it a direct competitor to the COC for research funds. In an article published in the *Monetary Times* in 1918, for example, A. T. Drummond of the NRC proposed once again that research projects be undertaken for many of the problems identified by the Commission.⁶⁵ The NRC also published a brochure signed by Adams which detailed his vision of the NRC's role in coordinating research: application of science to industrial research, correlation of governmental information, incentives to research in chemistry, steel, foundries, coal transportation and sales, industrial alcohols based on wood by-products, etc.⁶⁶ The content of this brochure was taken from Adams' last speech to the COC at the 1917 annual meeting.⁶⁷

In 1918, Sifton had clearly lost the battle for the control of industrial research in Canada. On 22 November, a few weeks after the end of the war, he submitted his resignation as Chairman of the Commission. His letter was sent to Borden, then in England, by acting prime-minister Sir Thomas White, who added a handwritten note:

Sifton, who has just sailed, has sent his resignation as head of the Commission of Conservation giving no reason. I saw him before he left when he appeared greatly dissatisfied because of failure at last session to grant certain salary increases (for the Commission). He thinks that the appointment of the Scientific Research Committee [the NRC] encroached upon his commission. Disposition of Council would be to accept his resignation and attach the Commission to one of the Departments. I suggest you see Sifton after he arrives and cable your views and advice.⁶⁸

In 1918, Adams also left the Commission.⁶⁹ With Sifton and Adams gone, White and his staff tried to keep their ship afloat but to no avail.⁷⁰ There were talks of appointing millionaire Senator Joseph Flavelle, a Conservative businessman who

65 A. T. Drummond, 'Opportunities in Canada for Research: Valuable Fertilizers are Wasted - New Methods of Briqueting Peat - Substitutes for Gasoline - Conservation of Heat - Chemical Research - Many Kinds of Fish, Valuable for Food, Neglected,' *Monetary Times*, 8 March 1915, 191.

66 Frank D. Adams, *The Need for Industrial Research in Canada* (Ottawa, 1918) - Honorary Advisory Council for Science and Industrial Research, document #1.

67 Frank D. Adams, 'Problèmes concernant l'industrie minière du Canada,' CCRA, 1917, 267-286.

68 NAC, Borden Papers, Sifton to Sir Thomas White, 1918-11-22, C4410, p. 130048; Sir Thomas White to Borden, 1918-11-26, C4410, p. 130049.

69 McGill University Archives, Archives de Frank D. Adams, MSS, correspondence on Khaki University, *The Beaver*, 1919-03-15, 1.

70 In March 1921, White wrote to Sifton: 'M[agrath] said to Arthur White: from the very day Sir Clifford's resignation was announced in the papers, the wolves have been after you in full cry.' NAC, Sifton Papers, White to Sifton, 1921-03-16, p. 163030.

ran the Imperial Munitions Board and who may have been interested in the issue of conservation after the war was over. The proposal fell through however, and Sifton was never officially replaced.⁷¹ Senator Edwards, although old and sick with high blood pressure, became acting chairman in 1919. He was no match for some members of Borden's cabinet, like Martin Burrell, the Minister of Agriculture and especially Arthur Meighen, the Minister of the Interior, who wanted to abolish the Commission as early as January 1917.⁷² Both men attended the Commission's annual meetings and committees meetings from 1914 and definitively did not like what they saw.⁷³

These Ottawa politicians were not the only ones opposed to the Commission. In February 1918 for example, the Canadian Mining Institute pushed for the COC's abolition because its recommendations impeded fast-paced development of the mining industry on the Eastern slopes of the Rocky Mountains.⁷⁴ Senior bureaucrats were also upset at the public popularity of the Commission. J. B. Challies, the Director of the Water Power Branch of the Department of the Interior, its most fervent critic, was instrumental in its abolition by helping members of a sub-committee of the Cabinet headed by Conservative senator Lougheed and drafting an indictment of the Commission. It is interesting to note that Challies was also the Secretary of the NRC during its first years of operation.⁷⁵

71 NAC, Sifton Papers, James White to Sifton, 1919-12-31, C596, pp. 162506-07.

72 See for example NAC, Borden Papers, Martin Burrell to Borden, 1917-01-02, C4366, pp. 84071-76.

73 The Report of the Sub Committee of Cabinet on the Commission is replete with anecdotes and facts about the annual meetings of the Commission, from its lack of direction after Sifton's resignation to the low attendance of some committees meetings. NAC, Meighen Papers, Report of the Sub Committee of the Cabinet on the Commission of Conservation, 1920, C3221, 10964-A to 10968-JJ.

74 NAC, Borden Papers, Canadian Mining Institute to Borden, 1918-02-08, C4415, pp. 134667-677. The Commission favored the creation of forest reserves on the Eastern slopes of the Rocky Mountains, which provide water and watershed protection to the few rivers travelling through Southern Alberta and Saskatchewan. It also opposed extensive mining and forestry there in order to preserve the wildlife.

75 McGill University Archives, RC2-C25, Industrial Research File, A. B. MacCallum to Sir William Peterson, 1917-12-19. In December of 1919, White wrote to Sifton about Challies: '[He] has been very active and I would not be surprised if he had been discussing it [the abolition of the Commission] with Meighen. He made the suggestion to M[agrath] that he stated to MacCallum that the Government would approve the transfer of the Commission to the Research Council and that Meighen approved of the suggestion.' NAC, Sifton Papers, White to Sifton, 1919-12-26, pp. 162502-03.

Shortly after Arthur Meighen was named Prime Minister, he promised members of the NRC a new law to promote scientific research. Since government money was scarce, he decided to abolish the COC and transfer the funds to the NRC. The Throne speech of 4 February 1921 states:

A Bill for the repeal of the Conservation Act will be submitted to you, there being a provision made for carrying on the essential functions of the COC in the appropriate Departments of the Government. This measure will, therefore, avoid very considerable duplication of services, and permit consequent savings of expense without detriment to the public advantage. [...] Bills related to [...] amending Acts, Scientific Research and other matters will be submitted to you.⁷⁶

When it became evident that the Commission would be abolished, White tried to secure another position within the public service. Out of the rumours that circulated in Ottawa at the time, one deserves some scrutiny, as it involved White and the NRC. On 7 May 1921, White wrote to Sifton that he had hoped to get a Director's job at the proposed National Research Institute.

I saw senator Lougheed last Tuesday. He was very pleasant and said that it had been suggested to him that I be appointed Director of the projected Research Institute. I know privately that the suggestion was made by C. A. Magrath. Yesterday I saw M. Meighen. He practically said that the passage of the Act abolishing the Commission would mean the dismissal of the whole staff. I spoke about transferring the staff to the research Institute. His answer was a flat "no" [...] I mentioned Dr. Frank D. Adams name but only in a casual way as my experience has been that he is always on the lookout for "No. 1"⁷⁷

Ironically, political infighting between Liberals and Conservatives in Ottawa made it impossible for White to get a chance to apply for any new positions at the proposed national Research Institute. The Act abolishing the Commission was passed on third reading 26 May 1921 in the House of Commons amid a stormy debate. But two days before, senators showed their anger at the government's plan to abolish the Commission by voting against Meighen's Bill to establish a National Research Institute in Ottawa. Members of the NRC would have to wait many years before politicians became favourable to national research ideals again. Conservation was such a non-issue in 1921 that even the Liberals, who came back to power later in the year, chose not to reinstate the Commission, although Clifford Sifton had then become a special advisor to Prime Minister Mackenzie King.

76 'Throne Speech,' *Journals of the House of Commons*, 14 February 1921, 4.

77 NAC, Sifton Papers, White to Sifton, 1921-05-07, pp. 163037-040.

Conclusion

Many hypotheses have been brought forward to explain the abolition of the COC, many of which can be attributed to errors of judgement on the part of James White: duplication of services, infighting with numerous Ottawa bureaucrats, publication of information already available, needless and extravagant expenses by Arthur V. White, his cousin, failure of the COC to act as a bridge between politics and science, etc.⁷⁸ Moreover, the economic picture in 1920-21 was bleak: Canada was facing a severe post-war economic recession and the federal deficit had swelled, prompting Meighen and his government to find ways of reducing federal spending.

From an environmental history perspective however, it is clear the main reason for the abolition of the COC was simply a loss of support for conservation as an ideal among the politicians and the public across the Western world following WWI. Before the War, the conservation of natural resources, the preservation of endangered species and spaces and the protection of animals were popular causes among reformers across Europe. For the first time, international organizations were formed with the goal to protect nature from man. But four years of war, millions of deaths, revolutions and the economic recession after the Armistice destroyed the progressive reformist movements across Europe except perhaps in the new Soviet Union, where socialists developed an interest in nature protection for ideological reasons.⁷⁹

In Canada, James Cook of the Editorial Committee on Government Publications, reflected on this shift from conservation and restraint to unbridled development:

The Commission was organized in 1909-10 with powers so wide and all embracing that it has been able to override or at least to ignore, existing departments. It appears to have been formed as a result of movements instituted chiefly in the United States and subsequently reflected into Canada,

78 These are discussed in D. J. Hall, *Clifford Sifton*, Vol. II, chapter 11; Peter Gillis, *Lost Initiatives*, chapter 3 ; James Allum, *Science, Government and Politics in the Abolition of the Commission of Conservation*, 154-208.

79 Hugo Conwentz, *The Care of Natural Monuments: With Special Reference to Great Britain and Germany* (London, 1909); George Sheail, *Nature in Trust: The History of Nature Conservation in Britain* (London, 1976); Thomas Soderqvist, *The Ecologists: From Merry Naturalists to Saviors of the Nation: A Sociologically Informed Narrative Survey of the Ecologization of Sweden, 1895-1975* (Stockholm, 1986); Douglas Weiner, *Models of Nature: Ecology, Conservation and Cultural Revolution in Soviet Russia* (Bloomington, 1988); François Walter, 'Attitudes Towards the Environment in Switzerland, 1880-1914,' *Journal of Historical Geography* XV:3, 287-299.

mainly through the efforts of American officials connected with now defunct American organizations. [...] This [the conservation movement was] an ephemeral condition which no longer exists and has no bearing on the present situation.⁸⁰

The report of the sub-committee of Cabinet on the Commission goes further:

[...] the functions of Conservation bodies there [in the US], as expounded a decade ago, have been either dissipated entirely or absorbed into those departmental organizations responsible for the direct investigation, development and exploitation of the natural resources of that country [...].⁸¹

The most significant statement regarding this profound shift with regards to conservation in the country can be found in the papers used by Meighen during the debates over the abolition of the COC:

Conservation, as conceived by the Commission at any rate, up until a year or two ago meant the locking up of the resources of the Dominion from proper development and use. It was precisely such short-sighted conception of conservation movement which absolutely killed it in the United States.⁸²

When James White understood that conservation was no longer popular among informed publics however, it was much too late for him to save his organization. He tried to shift the COC's emphasis from defending the principle of conservation to promote the development of Canada's natural resources in 1920, while Sifton and Adams had adapted to the new trend perhaps as early as 1915.⁸³ The COC was too closely associated with the ideology of conservation to survive Canada's return to normalcy. It was effectively replaced by another organization, the NRC, which promoted maximizing the use of Canada's natural resources. Indeed, Frank D. Adams and Dr Tory had learned a valuable lesson from their involvement with the COC: science, like everything else, is subject to fashion. In the 1920s, science was regarded as an instrument to provide unlimited growth, rather than sustainable development. The new specialists trained in universities

80 NAC, Meighen Papers, Fred Cook to Arthur Meighen, 1920-10-22, C3225, pp. 015338-341.

81 NAC, Meighen Papers, 'Report of the Sub Committee of Council on the Commission of Conservation, 1920,' C3221, p. 10964-b.

82 NAC, Meighen Papers, 'Extracts from Report of Sub-Committee of Council on the Commission of Conservation., 1921,' p. 010954.

83 See for example 'Conservation means Development,' **Conservation IX** (July-August), 1920, 26.

were then entrusted with the difficult task of managing nature for short term profit.⁸⁴

84 In the 1920's conservation of natural resources was promoted by non-governmental and professional associations, such as the Canadian Forestry Association, which boasted 30,000 active members by 1929. See Michel F. Girard, 'La forêt dénaturée,' 84. Although the conservation movement lost its momentum with the 1930s economic depression, interest in wildlife and un-spoiled nature grew among the urban middle-class. See for example the works of Grey Owl and Samuel Hays, *Beauty, Health and Permanence: Environmental Politics in the United States, 1955-1985* (New York, 1987).