

The Newsletter of the Canadian Institute of Resources Law

The Ozone Convention and Protocol: Further Steps Towards an International Law of the Atmosphere

"The Earth is one but the world is not. We all depend on one biosphere for sustaining our lives. Yet each community, each country, strives for survival and prosperity with little regard for its impact on others."

Our Common Future: World Commission on Environment and Development, The "Brundtland" Report, at p.27

by N.D. Bankes

The character of, or at least our perception of the character of, atmospheric pollution has changed significantly since the Second World War. At one time we believed that atmospheric pollution was primarily local in nature and that if it had transboundary consequences, the problem would be with adjacent states and could be resolved by the negotiation of bilateral agreements and by reference to arbitration.

The classic example of this in international jurisprudence is of course the lead-zinc smelter at Trail, British Columbia operated by Consolidated Mining and Smelting Company. The smelter emitted sulphur dioxide which caused damage to farmers and other property owners in Washington State. The resulting dispute between the United States and Canada was ultimately resolved by agreement and arbitration.¹

By the 1960s at the latest, and following study notably by the Organization for Economic Cooperation and Development and the Nordic countries, it became understood that atmospheric pollution was not merely a local problem but was longer ranging in nature. That

understanding led to the negotiation of the Economic Commission for Europe's (ECE) Convention on Long Range Transfrontier Air Pollution (LRTAP) in 1979.² That Convention represents the first, very tentative, step along the road to the development of a coherent international law of the atmosphere. It was but a tentative step because the Convention itself lacked real teeth and was hortatory in nature.

Since then, attempts have been made to strengthen the Convention by the negotiation of protocols imposing specific reductions on the emission of pollutants. A sulphur protocol³ has already been negotiated under the auspices of the ECE and a further protocol on nitrous oxides is under negotiation. At a bilateral level on this continent, negotiations still continue between the United States and Canada as to an agreement on air quality and acid rain.⁴ The subject at both bilateral and multilateral levels remains a contentious one primarily because of the economic costs and dislocation associated with reductions in nitrous oxide (NOx) and sulphur oxide (SOx) emissions and secondarily because of disagreements as to the degree of scientific certainty required before polluting states are prepared to act.⁵

The attempt to negotiate an NOx protocol to the ECE Convention is particularly significant because it is indicative of a further change in the character of the atmospheric pollution problem facing the world community. NOx emissions are not only precursors of acid rain but they also contribute, along with other greenhouse gases (GHGs), methane, carbon dioxide and the chlorofluorocarbons, to the greenhouse effect and the whole problem of global warming which we shall undoubtedly face in the twenty-first century. Hence we have moved from the local, to the long range, to the global. In addition it is clear that the effects of the pollution are far less direct and that the source of damage is far more difficult to pinpoint. The emission of pollutants in one state will have a global effect on world climate conditions, not directly, but indirectly, by changing the thermal properties of the atmosphere.

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The problem of the depletion of the tropospheric ozone layer is similarly global in scope. "Since the atmosphere mixes relatively rapidly, one country's overhead ozone would not be protected by that same country's unilateral restriction of releases."⁶ Simply stated, the problem is that gases such as the chlorofluorocarbons, (CFCs) (used primarily as aerosol propellants, refrigerants, solvents and insulators) and halons (gases used in fire prevention systems particularly in computer and military applications) are escaping and drifting up to the stratosphere.

Apart from their contribution to the GHG effect, the main concern with these gases is that they break up and react with the protective ozone layer, allowing more intense ultraviolet radiation to reach the earth's surface. This has significant effects on human health, and, if unregulated, would dramatically increase the incidence of skin cancer. Increased ultraviolet radiation may also destroy plants. Because the gases may survive for decades before breaking down in the troposphere, even an immediate cessation of production of the gases would not eradicate the problem which will intensify before it improves.

Since the problem was identified in the early 1970s, the industrialized nations of the world have made fairly rapid progress towards remedying it, culminating in the Vienna Convention for the Protection of the Ozone Layer, March 1985⁷ and the Montreal Protocol of September 1987.⁸ The Vienna Convention should be seen as a framework convention or as an agreement in principle to "do something" about the ozone problem. It is the Montreal Protocol which, like the Sulphur Protocol to the ECE LRTAP Convention, actually requires the states who are parties to reduce their production and consumption of CFCs and halons.

The first concrete steps⁹ towards an international agreement on the subject of ozone depletion were taken in 1977 when the United Nations Environment Program (UNEP) convened a meeting of experts, and in May 1977 UNEP's Governing Council adopted a World Plan of Action on the Ozone Layer. A Co-ordinating Committee on the Ozone Layer was established and a group of technical experts established under UNEP sponsorship with the result that, after several iterations of the draft, the Convention was adopted in final form in Vienna in March 1985.

As stated above, the Convention is a framework Convention and envisages that specific obligations will be imposed by way of protocols. Parties are to cooperate in systematic observation and monitoring and in the formulation of agreed measures in the form of annexes and protocols (Arts. 2 & 3). In order to provide a forum for information exchange, and to further the adoption of protocols, the Convention established a Conference of the Parties (Art. 6) to be served by a secretariat (Art. 7) whose services would be provided on an interim basis by UNEP. The Convention has not yet entered into force and will only do so on the deposit of the twentieth instrument of ratification (Art. 17).

As part of the Final Act to the Convention, the parties also adopted a Resolution on a Protocol Concerning CFCs urging parties to continue work on the protocol in order to give the Convention some real teeth. As a result, a further diplomatic conference was held in Montreal in September 1987 and a protocol successfully adopted. The Protocol will enter into force when ratified by at least 11 states or regional economic integration organizations (e.g. the European Economic Community) representing at least two thirds of estimated consumption (Art 16).

The Protocol provides for a staged reduction in the "calculated level of consumption" of CFCs and halons. Consumption is calculated by reference to the ozone depleting potential of each substance and production plus imports minus exports (Art. 1 and Annex A). There are several stages to the phased reduction.

First, the Protocol provides that by seven months following entry into force, states parties shall have stabilized production and consumption of CFCs at 1986 levels (Art. 2(1)). This is to be reduced to 80% by 1993-1994 (Art. 2(3)) and to 50% of 1986 levels by 1998-1999 (Art. 2(4)) although the latter reduction will only apply "unless the parties decide otherwise at a meeting of the parties".

Second, separate provision is made for halons and parties are required by three years of entry into force to have stabilized consumption at 1986 levels. (Art. 2(2)) The use of 1986 production levels in the calculations is of considerable strategic significance in combatting the problem of ozone depletion, for it means that there is no advantage to a state to be gained by delaying ratification, for each state must still

make "forthwith" the required adjustment no matter when it becomes a party (Art. 17).

These reduction requirements constitute the basic provisions of the Protocol although there are various qualifications to deal with basic domestic needs (eg. food processing), economic rationalization (Art. 2(5)) and the transfer of production from small producers (such as Canada) for economic efficiency reasons. In addition, special provision is made for the needs of developing countries allowing them to delay compliance in order to meet basic domestic needs. The parties also obligate themselves to facilitate the transfer of applicable technology to developing countries to allow them to use alternative technologies and substitute products (Arts. 9 & 10).

To complement the provisions on production and consumption, and to encourage states to become parties, the Protocol (Art. 4) also imposes controls on trade with non-parties. Within one year of entry into force, the parties are to ban the import of products containing controlled substances and the study of further possible measures to ban the import of products produced with controlled substances.

In order to provide at least the basis for monitoring compliance, parties to the Protocol must provide the secretariat (UNEP again) with details of 1986 production, imports and exports as well as annual information thereafter. (Art. 7) The parties also agreed to exchange information and to cooperate in research, especially in best available technologies and on the development of alternatives to the use of controlled substances (Art. 9). An assessment of the control measures contained in the Protocol is to be provided, at least every four years, by a blue ribbon panel of experts to be appointed by the parties (Art. 6).

The Protocol is not designed to be a static instrument. Hence it calls for regular meetings of the parties (Art. 11) to consider whether the proposed reductions are both adequate and necessary, to consider amendments to the Protocol and its annex and to consider whether "any additional action might be required for the achievement of the purposes of this Protocol."

The Protocol is an impressive achievement. It is the first truly global agreement to protect the earth's atmosphere from

further degradation by human activity. As such it represents, along with the regional ECE LRTAP Convention and accompanying protocols, a possible model which may be used to deal with the broader problems of greenhouse gases and global warming.

Progress in the development of a regime to deal with ozone degradation has been fairly rapid, at least by comparison with other international environmental instruments. The reasons for that should be instructive and should allow us to apply elsewhere the lessons which have been learned. First, states elected to proceed by way of a framework convention followed by a protocol. This allowed the parties to reach agreement in a staged way, building upon consensus and postponing difficult and contentious issues where necessary. Second, parties were able to characterize the issue as a health problem. This generated significant public concern and media¹⁰ and political support which outweighed concerns as to economic dislocation. Third, at least in the opinion of some authorities, the economic costs of increased health care if the parties failed to do anything could be estimated and compared favourably with estimates as to the costs of the search for adoption of alternatives.

The Protocol, however, is not beyond criticism for concessions were made along the way in order to achieve consensus. For example, the Protocol does not deal substantively with the issue of non-compliance and the consequences thereof, other than to state that this problem is to be dealt with at the first meeting of the parties, again exhibiting the gradualist approach that we have referred to above (Art. 8).

Another possible basis for criticism is found in (Art. 4(3)) which provides that within three years of entry into force the parties should elaborate a list of products containing controlled substances which would be subject to a trade ban, but which would only bind a party in the event that it did not object. Once again though, the parties have at least provided a mechanism to deal with a problem on which there was no immediate consensus and that seems to be a sound approach.

Finally, one can always criticize such an international instrument on the basis that it has simply not done enough, that it has not established a sufficiently rapid or deep enough cut in production of CFCs and halons. While this criticism

has particular force because of the longevity of these gases one can again emphasize that the Protocol is not a static instrument and further reductions may be possible if research shows this to be necessary.

The negotiation of the Convention and Protocol represents a signal achievement along the road to environmental protection and sustainable development. However, neither instrument is yet in force¹¹ and we await the requisite number of ratifications. In the meantime, attention should be turned to completing a law of the atmosphere by the development of global agreements to deal with GHGs and to securing the wider acceptance of international instruments dealing with acid precipitation. We cannot afford to wait until our lakes are all acidified, our forests suffer die-back, and average temperatures increase by several degrees, for by then it will be too late.

Countermeasures must be taken now on the basis of information currently available with opportunities in the future to review their efficacy and their necessity. The problems are global in nature and they demand global solutions; solutions which must take into account the needs of developing nations and the necessity of achieving sustainable development.

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Notes

1. 3 UNRIAA, 911-1937 and 1938-1981. There is a vast literature on the case, see e.g. J.E. Read, "The Trail Smelter Dispute" 1963, 1 *Canadian Year Book of International Law*, at 213.
2. Geneva, November 13, 1979, (1979), 18 *International Legal Materials*, at 1442.
3. Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Per Cent, Helsinki, 8, July, 1985: the Protocol entered into force January 28, 1988. Canada is a party.
4. Memorandum of Intent Concerning Transboundary Air Pollution, Washington, 5 August, 1980; *Joint Report of the Special Envoys on Acid Rain*, Drew Lewis and William Davis, January 1986.
5. *Id.*, *Joint Report of the Envoys*.
6. Williams, "A Historical Background on the Chlorofluorocarbon Ozone Depletion Theory and its Legal Implications" in C. Flinterman *et al.* (eds.), *Transboundary Air Pollution*, Martinus Nijhoff, Dordrecht, 1986, 267-280 at 268.
7. Vienna, 22 March, 1985, (1987), 26 *International Legal Materials*, at 1516.
8. Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 16 September, 1987, (1987), 26 *International Legal Materials*, at 1541.
9. For the background see Williams, *supra*, note 6 and Rummel-Bulska, "The Protection of the Ozone Layer Under the Global Framework Convention" in C. Flinterman *et al.* (eds.), *supra*, note 6 at 281-297.
10. Media coverage has been and continues to be extensive and sophisticated for such an arcane topic so concerned with future predictions. See for example: "Ozone hole suspected in sunburn of polar team", *Globe & Mail*, June 8, 1988.
11. Canada has ratified the Vienna Convention and anticipates ratifying the Protocol in the near future once the Environmental Protection Bill, c. 74 enters into force.

Letter to the Editor

Dear Editor:

I read with interest Janet Keepings' summary of natural gas deregulation (RESOURCES 21). I agree with her concern that the consuming provinces were excluded from the deregulation process and that the NEB has taken too narrow a definition of the public interest in formulating its natural gas policies.

There are several points, however, which need clarification. First the long term CD contracts because TCPL and the natural gas utilities were rendered unenforceable by deregulation on October 31, 1986 when the government regulated price on which these contracts were based was eliminated. Consequently, no self-displacement of gas could occur because there was no contracted supply of gas to displace unless utilities voluntarily renewed their contracts with TCPL. Currently, utilities have renewed their contracts until November 1, 1988. To require natural gas utilities to continue to take gas from TCPL in the absence of a new contract imposes a contractual obligation which does not exist.

Second, there must be many buyers and sellers for a market to work properly. Restricting direct purchases to only large industrial customers and requiring utilities to take gas from only TCPL regardless of contractual obligations results in unduly discriminatory and excessive prices.

Third, the Manitoba Oil and Gas Corporation was set up as an agent on behalf of Manitoba consumers to engage in a direct purchase as provided for the Agreement. MOGC was not a monopoly as indicated in your article. Consumers had the option to take gas from MOGC, continue to take gas from the natural gas utility or make their own direct purchase. In fact, one-quarter of Manitoba natural gas consumers did not choose to use MOGC as their agent.

If deregulation is going to work, there must be many buyers and sellers. No consumers should be held captive to any supplier. After three years of protection, TCPL should be required to compete with other suppliers and natural gas utilities should be required to tender for their gas supply.

Thomas I. Gunton

The Oldman Dam Decisions

A series of court challenges to the ongoing construction of the Oldman Dam raises questions about the regulatory process governing Alberta's water resources.

by Jonathan Scarth

The proposal to construct a large storage dam at the Three Rivers site (near the confluence of the Castle, Crowsnest and Oldman rivers) on the Oldman River is the second environmental controversy of its kind in Alberta in recent years.¹ A series of court challenges to the ongoing construction of the dam has reignited the Oldman Dam controversy and raised serious issues concerning the regulatory process governing Alberta's water resources.

The Background

Investigations relating to the construction of the Oldman Dam began at least as far back as the early 1960s, when the Prairie Farm Rehabilitation Administration conducted engineering field surveys at several potential damsites in southern Alberta. After assuming responsibility for irrigation works from the PFRA and setting aside a substantial budget for irrigation rehabilitation and expansion, the provincial Department of the Environment (Alberta Environment) launched a series of studies into water supply and management within the Oldman River basin. The first of these reviewed nine potential damsites as possible solutions to predicted water shortages and recommended a detailed review of the Three Rivers site.²

After requesting public reaction to this preliminary study, the Minister of the Environment established a Committee to make further recommendations on water management within the basin having regard to the concerns of local residents. The terms of reference included a reassessment of the preliminary study, management of a public information and consultation program, and provision of a liaison between the government and the public. The important conclusions were that the future expansion of irrigation would be limited by the available water supply, that such expansion was in the public interest, and that a large onstream storage reservoir on the Oldman River was required in order to develop the irrigable

acreage in the basin to its full potential.³

Just prior to the completion of the Committee's final report, the Minister referred the matter to the Environment Council of Alberta (ECA)⁴ with a broad mandate to enquire into the merits of alternative means of providing for future water requirements in the basin and to hold public hearings on the Committee's final report. The ECA's report made 74 recommendations related to water management within the Oldman River basin, disagreeing with the Committee on the key issue of the necessity for an onstream storage dam. While the ECA acknowledged the desirability of expanding irrigation, it concluded that offstream facilities would suffice and that an onstream dam was not required to develop irrigation within the basin to its maximum economic potential.⁵

Although many of the ECA's conclusions were accepted, the recommendation against construction of an onstream storage dam was rejected, and the government's decision to proceed with a dam at the Three Rivers site was announced in August of 1984. Although a formal environmental impact assessment was not required by the Minister,⁶ environmental inventory studies were conducted in 1985 and some were released to the public. Mitigation and assessment reports are being prepared as construction proceeds. Alberta Environment applied to the Controller of Water Resources and was granted an interim water licence on August 19, 1987.⁷

Three separate court challenges by the Friends of the Oldman River Society followed. The first of these challenges, an application for judicial review to the Alberta Court of Queen's Bench, resulted in the granting of an order by Moore C.J. quashing the interim water licence.⁸ When a second licence was issued in its place, the Society unsuccessfully sought to have the Energy Resources Conservation Board (ERCB) take jurisdiction on the basis that the Oldman Dam constituted a hydro development.⁹ Finally, an application to quash the second water licence was denied by Picard J.¹⁰

The Decisions

In hearing the first judicial review application, Moore C.J. dealt with three grounds put forward on behalf of the Society in attacking the issuance of the initial interim water licence, all relating to compliance with the procedural requirements of the *Water Resources Act* which governs the acquisition of water rights in Alberta.

The first issue considered was whether the licence was void due to Alberta Environment's failure to file written permission from the municipal and other authorities responsible for the area to be affected, or the Public Utilities Board.¹¹ Moore C.J. found that this created a mandatory obligation on the applicant to at least attempt to obtain the written permission of these authorities. In response to the argument that the Minister (or his delegate) had the discretionary power to defer this requirement for written permission, the learned Chief Justice pointed out that the wording of this section required the written permission to be filed *with* the application, and noted the inherent futility in receiving input from these authorities after construction of the works had been completed.

The second ground advanced on behalf of the Society was that the Minister had failed to refer a copy of Alberta Environment's application to the ERCB for its advice.¹² It was argued that this referral procedure was directory, and since the ERCB's jurisdiction extends only to energy-related projects, the referral contemplated by the section was required only in respect of projects with a substantial energy component. This argument was also rejected – the section created a mandatory requirement in respect of *every* application for a licence; the only discretion to waive this referral lay with the ERCB, and it had not been exercised in this case.

The final issue dealt with by the learned Chief Justice, and the most interesting aspect of the decision, related to the notice and publication requirements for water licence applications, and, in par-

particular, the exercise of the ministerial discretion to waive those requirements "...if he [the Minister] considers it expedient and fit and proper to do so..."¹³ Moore C.J. accepted the preliminary proposition that the Minister had validly delegated this discretionary power to the Controller of Water Resources, an employee of Alberta Environment. He went on to find, however, that this power of waiver had not been validly exercised.

While it is perhaps not surprising to see a court read down subjective language governing a statutory power, the scope of the judgement on this point is nonetheless impressive and encouraging from a policy standpoint. The learned Chief Justice found that input from Alberta Environment staff and local residents in the earlier stages of the project's history, the extensive media coverage and the public information campaign accompanying the project could not (as was urged) obviate the need for an opportunity for the public to provide input on this application, particularly in light of "...the magnitude of this project and the potentially significant ongoing effect it will have on the province of Alberta and its citizens..."¹⁴ In so finding, he clearly emphasized the important function of the notice provisions in providing "...affected parties the opportunity to voice their concerns over a project of this magnitude".¹⁵

The implication from the learned Chief Justice's comments on this issue is that public information cannot be substituted for public participation in the decision-making process, a distinction which gives effect to the requirement that the Minister consider "...all protests filed..." before exercising his discretion in granting an interim water licence.¹⁶ In addition, Moore C.J. found that the Minister's determination of what was fit and proper could not properly have been made in the absence of the ERCB's advice and without attempting to solicit permission from either the Public Utilities Board or the affected municipal or provincial authorities.

Immediately upon the release of Moore C.J.'s judgement, the Respondents simultaneously launched an appeal and reapplied for an interim water licence. This time, permission was sought from the local municipality and the affected authorities and a copy of the application was forwarded to the ERCB. The notice requirements were again waived by the Controller. On February 5, 1988, a new

interim water licence was issued and shortly afterwards the appeal of Moore C.J.'s decision was abandoned.

The Society requested the ERCB to convene a public hearing to consider whether the Oldman Dam should be granted approval as a hydro development.¹⁷ The ERCB refused to take jurisdiction on the basis that the Oldman Dam was not a "hydro development" and therefore did not require ERCB approval, and the Society sought leave to appeal this decision to the Alberta Court of Appeal. In refusing leave, Harradence J.A. noted that the stated purposes of the interim water licence did not include hydro development. The fact that the Oldman Dam was designed so as to facilitate future installation of power generation equipment did not in his view render it a hydro development.¹⁸

The Society's second judicial review application to quash the new interim water licence was also dismissed by the Alberta Court of Queen's Bench. After rejecting the Society's initial argument based on deficiencies in the content of the licence application, Picard J. was confronted with the same issue as to the validity of the Controller's decision to waive notice requirements that had been argued before Moore C.J.

The learned Justice found that there had in this case been compliance with the consultation and referral provisions of the Act. She noted the voluminous materials reviewed and the extensive dialogue that took place between the Controller and Alberta Environment, and concluded that the discretion to waive notice had in this case been properly exercised.¹⁹

In addition to the proceedings brought on behalf of the Society, the Peigan Indian Band (whose reserve is located immediately downstream of the Three Rivers site) has commenced parallel actions against the federal and provincial governments. These actions, based on aboriginal title and water rights in respect of the Oldman River, remain in the early stages of the litigation.

The Process

In reviewing the broad regulatory issues raised by the Oldman Dam experience, an invaluable yardstick can be found in the recent report of the World Commission on Environment and Development.²⁰ In 1983, the United Nations

established this Commission, headed by Prime Minister Gro Harlem Brundtland of Norway, to examine issues of environment and development and to formulate long term strategies for achieving "sustainable development" worldwide. The Brundtland Commission's landmark report, released in 1987, describes major economic and environmental problems and presents far-reaching recommendations to address them. While the Brundtland Report makes it clear that its first priority is decisive action at a political level, it also contains several specific recommendations for changes to the institutional and legal frameworks governing our natural resources and environment. Against the background of these specific recommendations, the Oldman Dam experience raises several issues regarding the regulation of major water projects in Alberta.

The first of these issues relates to the use of environmental impact assessment (EIA) in the course of the approvals process. While there can be no disagreement with the Brundtland Commission's recommendation that EIA should form part of the approvals process for projects of this nature,²¹ the Oldman Dam example raises issues relating to the appropriate timing and scope of EIA. In this case, while environmental effects were considered in a preliminary and comparative way in the course of site selection, detailed environmental studies were not conducted at the chosen site until after the decision to proceed was announced. This approach conflicts with the fundamental purpose of EIA - to ensure that environmental concerns are fully addressed *before* development decisions are made.²² Applying EIA in this manner necessarily restricts the scope of the assessment work to mitigation and minimization of impacts, rather than the analysis of alternatives.

A second aspect of the regulatory process highlighted by the Oldman Dam decisions is the treatment of public notice and public input. The effect of the current statutory provisions is that notice of the filing of a licence application must be either posted for 15 days at the site of the proposed works and at the local municipal office, or must be published in a local newspaper once a week for two successive weeks, subject, of course, to the power of waiver exercised in this case. These requirements have endured with only minor amendments since their original appearance in the current Act's pre-

decessor, the *North-west Irrigation Act* of 1894.²³ These notice provisions speak of an era when the primary regulatory concern was equitable distribution between local agricultural users;²⁴ the litigation generated by the Oldman Dam illustrates their inadequacy in the context of a project of this magnitude. The need for clearly defined structures to channel public participation and assure consideration of the full range of public concerns was strongly endorsed by the Brundtland Commission.²⁵ A ready example of a more contemporary approach can be found in the Northern Inland Waters Act, which makes public hearings on northern water licencing decisions mandatory.²⁶

Finally, questions can also be raised concerning the dominant and multiple role played by Alberta Environment in the development and approval of the Oldman Dam. In essence, Alberta Environment conceived of the project, applied for approval as proponent and granted the interim water licence in respect of the project. In addition, it was the Minister of the Environment who determined the timing and scope of the environmental assessment and the degree and nature of public involvement in the assessment process.

There is an obvious potential for conflict between Alberta Environment's role as a developer of water projects and its responsibilities for regulating that development. In addition, experience has demonstrated that independent and effective project assessments can be precluded by departmental solidarity and the internal administrative momentum which major projects can achieve.²⁷ While there is considerable sympathy for the view that the process ultimately places development decisions solely within the political arena where they belong, this position seems more tenuous when the issue is often not the broad policy objective (expanding irrigation), but rather the means of most efficiently attaining that objective (onstream versus offstream storage).

The Brundtland Commission has recommended the institutional combination of resource development and environmental protection mandates as a means of encouraging the consideration of ecological concerns at the same time as economic, agricultural and other factors in decision making.²⁸ The Oldman Dam experience hints that a politically independent regulatory body may be a necessary adjunct to this centralization of responsibilities. Again, an example

of this approach can be seen in Yukon and the Northwest Territories, where water licencing decisions are made by territorial water boards that are increasingly independent of the Department of Indian Affairs and Northern Development.²⁹ The respected independence of Alberta's ERCB is another example in the analogous context of energy resources.

Pressures on the continental water resource continue to grow, and despite the current policy stances of the federal and provincial governments it seems inevitable that the regulatory system may soon be faced with proposals for major interbasin transfers and water export schemes. As the Oldman Dam controversy enters its final chapter, it has raised several questions about the regulatory treatment of such major water projects.

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Notes

1. A similar controversy arose in the 1970s prior to the construction of a dam on the Red Deer River in south-central Alberta.
2. Alberta Department of the Environment, Planning Division. *Oldman River Flow Regulation Preliminary Planning Studies: Main Report*. Edmonton, 1976.
3. Oldman River Study Management Committee. *Oldman River Final Report*. Lethbridge, 1978.
4. The ECA is a quasi-independent environmental advisory agency constituted by the *Environment Council Act*, R.S.A. 1980, c.E-13.
5. Environment Council of Alberta. *Report and Recommendations: Public Hearings on Management of Water Resources within the Oldman River Basin*. Edmonton, 1979.
6. The Minister has a discretionary power to order the preparation of an environmental impact assessment pursuant to s.8 of the *Land Surface Conservation and Reclamation Act*, R.S.A. 1980, c.L-3.
7. Interim water licences are issued pursuant to ss.11 and 18 of the *Water Resources Act*, R.S.A. 1980, c.W-5; s.5 of that Act requires that interim water licences be obtained prior to the construction of any works for the diversion of water.
8. *Friends of Oldman River Society v. Alberta (Minister of the Environment) (No. 1)* (1987), 56 Alta. L.R. (2d) 368 (Q.B.).
9. The ERCB is constituted by the *Energy Resources Conservation Act*, R.S.A. 1980, c.E-11, and plays a major role in regulating the development of energy and natural resources in Alberta. For a description of the ERCB see, generally, *Canada Energy Law Service*, Richard DeBoo Publishers, Don Mills, p.30-3001 ff. ERCB approval is required of a "hydro development" by s.7 of the *Hydro and Electric Energy Act*, R.S.A. 1980, c.H-13.
10. *Friends of the Oldman River Society v. Alberta (Minister of the Environment) (No.2)*, unreported, Alberta Court of Queen's Bench, Action No. 8801-02796, April 21, 1988.
11. This is required as part of the application by s.15(8)(b) of the *Water Resources Act*, *supra*, note 7.
12. This reference is required by s.17 of the *Water Resources Act*, *id.*
13. *Water Resources Act*, *id.*, ss.16, 18(1)(a), 19. Subject to this power of waiver, the Minister is required to either forward a notice of the filing of the application for posting in the municipal office of the affected municipality, or require the applicant to publish such a notice in a local newspaper, and the application must be accompanied by proof that proper notice of the application has been given.
14. *Friends of Oldman River Society v. Alberta (Minister of the Environment) (No. 1)*, *supra*, note 8, at 375.
15. *Id.*
16. *Water Resources Act*, *supra*, note 7, s.18
17. *Supra*, n.9. The ERCB's consideration of a hydro development would inevitably include a public hearing. The hydroelectric generating potential of the Oldman Dam had received attention in the course of the initial studies.
18. *Friends of the Oldman River Society v. Energy Resources Conservation Board*, unreported, Alberta Court of Appeal, Appeal No. 19864, March 22, 1988, at 4.
19. *Friends of the Oldman River Society v. Alberta (Minister of the Environment) (No. 2)*, *supra*, n.10, at 12.
20. World Commission on Environment and Development. *Our Common Future*. Oxford University Press, 1987.
21. Experts Group on Environmental Law of the World Commission on Environment and Development. *Environmental Protection and Sustainable Development*. Kluwer Academic Publishers Group, 1986, at 58 ff.; Alberta Environment. *Water Resource Management Principles for Alberta*. Edmonton, [n.d.], at 13.
22. Study Group on Environmental Assessment Hearing Procedures. *Public Review: Neither Judicial, nor Political, but an Essential Forum for the Future of the Environment*. Ottawa, 1988, at 14; Federal Environmental Assessment Review Office. *The National Consultation Workshop on Federal Environmental Assessment Reform*. Ottawa, 1988, at 8.
23. *The North-west Irrigation Act*, 1894, 57-58 Vict., c.30. The waiver provision was originally introduced for minor projects by s.13A of an 1895 amending Act (58-59 Vict., c.33) and was amended several times before its inclusion as s.14 in *The Water Resources Act*, S.A. 1931, c.71 for projects estimated to cost less than ten thousand dollars. The ten thousand dollar restriction on the use of the waiver was removed by s.11 of S.A. 1975, c.88.
24. D.R. Percy, "Water Rights in Alberta", 1977, 15 Alta. Law Rev. 142, at 163ff.
25. The Brundtland Report, *supra*, note 20, at 328.
26. *Northern Inland Waters Act*, R.S.C. 1970, c.28 (1st Supp.), s.15(2). While concerns have been raised about the need for territorial water boards to stage public hearings into all licence applications, these are being addressed by the development of expedited procedures for minor applications.
27. B. Sadler, "The Regulation of the Red Deer River: Conflict and Choice", Chapter 9 in *Water Problems and Policies*, (ed. by W.R.D. Sewell and M.L. Barker) University of Victoria, 1980, at 103.
28. The Brundtland Report, *supra*, note 20, at 303.
29. Canada, Inquiry on Federal Water Policy. *Currents of Change*. Ottawa, 1985, at 141.

Publications

The Institute has discontinued its Working Paper series and will now be publishing manuscripts in one of two forms: books or discussion papers. Discussion papers will be less formal than books. While they will be accurate, objective, useful and otherwise in accordance with the Institute's mandate, the discussion papers will not necessarily represent a definitive stage of research. Rather, they will be available to provide information and stimulate discussion.

Among the types of manuscripts which may be published as discussion papers are the following: informal proceedings of workshops, research work in progress, short research papers, high quality student papers, winners of the Institute's annual Essay Prize competition, and addresses by the holder of the Chair of Natural Resources Law. The first discussion paper to be available for distribution outside the Institute is *Views on Surface Rights in Alberta*.

A Reference Guide to Mining Legislation in Canada. (Second Edition), by Barry Barton, Barbara Roulston, and Nancy Strantz. 1988. ISBN 0-919269-25-7. 120 p. \$30.00

This publication consists of a series of tables that form a reference guide to the mining legislation of each province and territory in Canada. The book provides a general overview in summary form of how different subjects are treated in each jurisdiction.

Each table covers one particular subject in mining law: Table 1 – Statutes and Regulations, Table 2 – Lands Withdrawn from Mining Activity, Table 3 – Preliminary Licensing Requirements, Table 4 – Exploration Licences, Table 5 – Acquisition of Mineral Interests, Table 6 – Rights Conferred by Mineral Interests, Table 7 – Physical Characteristics of Interests, Table 8 – Duration and Renewability, Table 9 – Work Requirements, Table 10 – Transfer of Interests, Table 11 – Cancellation of Interests, Table 12 – Acquisition of and Compensation for Surface Rights, Table 13 – Diagrams.

The book is confined to Crown-owned hard-rock minerals; it therefore excludes privately-owned minerals, any separate legislation for placer mining (i.e., mining in alluvial deposits), quarriable industrial minerals, coal, petroleum and natural gas.

The first edition of this book was published in 1985. This second edition deals with the many legislative changes that have occurred since then.

Aboriginal Water Rights in Canada: A Study of Aboriginal Title to Water and Indian Water Rights, by Richard H. Bartlett. 1988. ISBN 0-919269-23-0. 231 pages. \$30.00

The Canadian Institute of Resources Law has published a book which is the first major Canadian work on the subject of aboriginal water rights. *Aboriginal Water Rights in Canada* provides a timely analysis of an increasingly important problem in the field of water management – that the affirmation of aboriginal water rights would demand an accommodation of aboriginal interests which has been rarely provided to date. "Aboriginal water rights" are those rights to water possessed by aboriginal peoples. The Indian, Inuit, and Metis are the aboriginal peoples of Canada.

First, the book considers "aboriginal title to water" – the concept of rights to water as an aspect of aboriginal title. Second, the study considers "Indian water rights" – the rights to water possessed by Indian bands upon the establishment of a reserve.

The book establishes the existence of aboriginal title to water at common law, of Indian water rights derived from treaty and

executive appropriation of lands, and of riparian water rights derived from riparian ownership. Further, an attempt has been made to map out the priority and scope of aboriginal water rights. The analysis suggests that aboriginal title to water is confined to traditional uses, and that more extensive rights only arise upon the establishment of a reserve. Determination of the scope of water rights will indicate how much and for what purposes Indian bands are entitled to use water; it may also dictate how non-Indians may use water.

The book also considers the extent to which aboriginal water rights have been validly regulated or abrogated by legislation. The analysis covers all jurisdictions in Canada from the past to the present and includes a consideration of the scope of federal jurisdiction, the protection accorded aboriginal title to water, the regime applicable to Indian reserves, the power of the provinces, and the entrenchment of aboriginal rights in the *Constitution Act, 1982*. The conclusions generally reached are that Legislatures have not abrogated or denied aboriginal water rights.

Finally, the book examines the manner in which contemporary agreements have provided for aboriginal water rights.

Views on Surface Rights in Alberta, Papers and materials from the Workshop on Surface Rights, presented by the Canadian Institute of Resources Law in Drumheller, April 20-21, 1988 (discussion paper), edited by Barry Barton. 1988. \$10.00

This publication is a result of the Workshop on Surface Rights that the Institute presented in Drumheller in April, 1988. Its purpose is to gather together the background papers and the reports of the small group sessions as a record for participants and non-participants alike. While this publication does not amount to conference proceedings, it should provide a clear view of the issues that were explored at the workshop.

The publication contains: an introduction with an overview of the discussions that took place and the points of consensus that were reached; revised versions of the four background papers that were presented at the workshop; reports from the small groups; and a list of participants. The background papers are: "Principles for the Fixing of Compensation: Some Current Surface Rights Issues" by Barry Barton; "Decision-Making by the Surface Rights Board of Alberta" by Alastair R. Lucas and Jonathan Scarth; "Judicial Supervision of the Surface Rights Board of Alberta" by Nigel Bankes and Jonathan Scarth; and "Costs Aspects of the Surface Rights Process" by Jonathan Scarth and Brian O'Ferrall.

How to Order

To order any of these publications please send a cheque payable to "The University of Calgary." Orders from outside Canada should be submitted in U.S. funds. (\$30.00 U.S. for *Aboriginal Water Rights in Canada* or *A Reference Guide to Mining Legislation in Canada* or \$10.00 U.S. for *Views on Surface Rights in Alberta*). Please send orders to: Canadian Institute of Resources Law 430 Bio Sciences Building The University of Calgary Calgary, Alberta T2N 1N4 Telephone (403) 220-3200 Facsimile (403) 282-7298

Other Publications

Books on a variety of resources law topics (mining, forestry, oil and gas, electricity, acid rain, etc.) are available from the institute.

For a list of publications please contact: Canadian Institute of Resources Law 430 Bio Sciences Building The University of Calgary Calgary, Alberta T2N 1N4 Telephone (403) 220-3200 Facsimile (403) 282-7298

Institute News

Research Project on Canadian Mining Law

The Institute will be commencing a two-year \$143,000 research project on Canadian mining law in July, 1988. The result of this project will be a one-volume manuscript on mining law, focusing on mineral title, which will cover the legislation of all provinces and territories.

The project sponsors to date are: American Barrick Resources Corporation, Falconbridge Limited, Fasken Martineau Walker, Hudson Bay Mining and Smelting, International Corona Resources Ltd., LAC Minerals Ltd., Noranda Minerals Inc., the Foundation for Legal Research, the Rocky Mountain Mineral Law Foundation, and the law foundations of Alberta, British Columbia, New Brunswick, the Northwest Territories, Ontario, and Saskatchewan. Additional sponsors will be announced in future issues of *Resources*.

The members of the project Advisory Committee are: Karl J.C. Harries, Q.C., Fasken and Calvin, Toronto; John W. Ivany, Chief Executive Officer, Prime Capital Corporation, Vancouver; Peter A. Manson, Senior Vice-President, Corporate and Legal Affairs, Bank of Montreal, Toronto; and Dr. C. George Miller, Managing Director, Mining Association of Canada, Ottawa.

Recent Presentations

- Acting Executive Director Alastair Lucas presented a paper, "Responsiveness and Security Within Resources Regimes - Regulation vs. Contract," at the Energy Law '88 conference in Sydney, Australia. The conference was convened by the International Bar Association's Section on Energy and Natural Resources Law.
- Research Associate Owen Saunders was an instructor at the first international Law and Economic Development Workshop which was held in Thailand in April. The workshop was attended by lawyers, government officials, and professors from throughout Asia. It was sponsored by the Canadian International Development Agency and organized by the law faculties at the University of Victoria and Chulalongkorn University, Bangkok, Thailand. Professor Saunders presented sessions on international trade law and several other topics.
- Alastair Lucas presented a paper on "Key Issues Arising out of Federal and Provincial Jurisdiction" at the Environmental Law Conference convened by the Institute for International Research in Toronto. In May he spoke at the Environmental Law & Prac-

Surface Rights Workshop

The Institute presented a Workshop on Surface Rights in Drumheller, Alberta on April 21 and 22. The workshop was organized to provide a neutral forum for different interests to meet and exchange views in a non-confrontational atmosphere.

Background papers were presented by Nigel Bankes of The University of Calgary law faculty, Brian O'Ferrall of the Bennett Jones law firm, and Institute researchers Jonathan Scarth, Barry Barton, and Alastair Lucas. The workshop also featured small group and plenary discussions to clarify and discuss strengths and weaknesses of the existing surface rights system, and identify and discuss options for change and their implications. Susie Washington of Western Environmental Trends was moderator of the discussions on the second day.

Participation was necessarily by invitation so that the workshop could be kept to a size

that would lend itself to round-table discussion. Efforts were also made to ensure that the participation included an appropriate balance from the various types of operator companies, the various agricultural and other surface interests, the Surface Rights Board (and the equivalent boards in other prairie provinces), the Energy Resources Conservation Board, the Land Compensation Board, and the legal and appraisal professions.

Funding for this workshop was provided by the Canadian Association of Petroleum Landmen, the Canadian Petroleum Association, the Independent Petroleum Association of Canada, the International Right of Way Association, the Small Explorers and Producers Association of Canada, and the law firm Drummond, Crooks.

The Institute has recently published a discussion paper, "Views on Surface Rights in Alberta", which consists of papers and other materials from the Workshop.

Recent Visitors

Patrick Duffy, Director of the Federal Environmental Assessment and Review Office (for the Northern Region)

Professor Eugene Kuntz, 1988 holder of the Chair of Natural Resources Law

Gordon Lewis, Environment Canada Inland Waters Directorate, Regina, Saskatchewan

Madame la juge Michèle Rivet, Commissioner of the Law Reform Commission of Canada

tice conference sponsored by The Canadian Institute in Vancouver. The topic of his session was "Alberta Environmental Law and Practice Update".

- Research Associate Barry Barton participated in a workshop in Regina on the Science Council of Canada's draft report "Is It Fresh Enough?" The workshop was co-sponsored by Environment Canada. He was also a resource person at the Northwest Territories government's workshop on the Draft N.W.T. Water Policy.
- Owen Saunders presented a paper on "The Canadian Resource Sector: Some Implications of the Free Trade Agreement" at the National Conference on the Free Trade Agreement in Toronto. The conference was convened by Osgoode Hall Law School and York University's Centre for Research on Public Law and Public Policy. He also gave a lecture at Dalhousie University on free trade and the environment.
- In June, Alastair Lucas was the moderator at The Canadian Petroleum Law Foundation's 27th Annual Research Seminar in Oil and Gas Law. The seminar took place in Jasper, Alberta. As moderator Professor Lucas provided a commentary on every research paper which was presented.

Resources No. 22

Resources is the newsletter of the Canadian Institute of Resources Law. Published quarterly, the newsletter's purpose is to provide timely comments on current resources law issues and to give information about Institute publications and programs. The opinions presented are those of the authors and do not necessarily reflect the views of the Institute. Resources is mailed free of charge to more than 6,000 subscribers throughout the world. (International Standard Serial Number 0714-5918) *Editor: Theresa Goulet*

Canadian Institute of Resources Law

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