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Commentary

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CHAD DAY*

Commentary

From the perspective of British Columbia, I believe that it is premature to promote the creation of a trinational North American body to collectively consider the nature of water resources in Mexico, the United States, and Canada. This is because, to the present time, little attention has been devoted to sustainable water planning and management in the province. Indeed, we are currently in the process of assembling for the first time, in machine readable form, all of the water allocation permits by sub basin which have been issued throughout the province. Little is known in detail about the extent to which over-allocation already exists in specific sub basins but it is thought to be on the order of 20 percent, concentrated mainly on the eastern side of Vancouver Island, and in the irrigation districts which are mainly located in the southern part of the province. When this initial task is completed, rapid estimation of contemporary patterns of surplus and deficiency will be possible and this will permit the first provincial assessment of these important statistics sometime early in the 1990s.

This deficiency in water intelligence reflects the low priority which water planning and management have experienced in British Columbia until 1990. Data collection efforts to the present time have focused on a joint federal-provincial program to obtain hydrological information in a widespread network throughout British Columbia. This is by far our best information. Less is known about water quality and biological productivity, although efforts are currently underway to specify water quality objectives and criteria for all of the provincial drainages. From the perspective of river basins, the federal and provincial government completed a useful study of the Okanagon Basin in the 1980s and the B.C. Ministry of Environment investigated some 16 of 43 basins where water use conflicts arose or were emerging during the 1970s and 1980s. But clearly, a serious effort has never been made to undertake a comprehensive assessment of water and related land resources in the major provincial rivers. In addition, little is known about the quantity and quality of the provincial groundwater aquifers. It appears that quality may be more of a problem than quantity, but the present water legislation does not permit the province to manage this part of the water resource. Equally disturbing is the

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fact that the affected publics have not yet been consulted on the question of development priorities.

Rather than attempt to study provincial water and land resources synoptically, studies have been completed on a sectoral basis. For example, hydroelectric potential has been delineated by B.C. Hydro throughout the province and a development sequence was recommended in 1989 which would have spared none of the major drainages from some level of impoundment over the coming quarter century. Unfortunately, no other provincial agency has had the funding available to assemble a comparable vision of its priorities for future management throughout the provincial river basins. Nevertheless, the federal Department of Fisheries and Oceans recently began to examine the fisheries productivity potential in one drainage, the Fraser Basin, and this work is slowly being extended to other basins.

The current provincial water legislation is a major factor underlying the uncertainty concerning the amount of water which is available by sub basin, how much is being used now, and how much will be needed by society in coming decades. Deficiencies in the Water Act, under which water has been allocated and managed since 1969, and legislation which preceded this act, are at the heart of the problem. The current document was designed to promote potential extractive projects which use water consumptively in irrigation, mining, industries, and municipalities. Hydroelectric development has traditionally also been encouraged.

At the same time a number of important nonconsumptive water uses are ignored in the act. For example, no provision was made to permit instream uses in spite of the fact that sport and commercial fishing for anadromous and other species is an important water use. It requires a continuing base flow allocation if the fishing industry is to be sustainable. In addition, tourism, which probably surpassed forestry to become the major provincial industry in 1990, is almost entirely dependent on the fresh and marine water resource and a pristine natural environment. However, it is at present difficult, indeed virtually impossible, to allocate water for these purposes to ensure the protection of environmental esthetics upon which sustainable tourism and recreation depend. Nor is regulation of water quantity and quality possible, as explained above.

In summary, there are compelling reasons why the Province of British Columbia needs time to do basic data collection, assessment, and planning given the uneven and deficient information concerning the quantity and quality of the water resource, its biological productivity potential, and the suitability of the provincial river basins to support a variety of competing water and related land uses on a sustainable basis. Given this high level of uncertainty, it is understandable why no serious effort has been made to predict the range of economic consequences, and the social, and biophysical effects, which global warming could have on

provincial water uses and development options. Clearly a major planning effort must be completed within our province before tripartite discussions of any significance could be initiated to determine the role which British Columbia water might play in accommodating change which might be induced throughout North America as a result of global warming.