

planned around the release of a document outlining its strategies. But this is only part of what is needed. The Team must develop an ongoing, comprehensive program of outreach to raise awareness and involve Metro Toronto's general public. Perhaps the best way to do this is by using a watershed approach, creating enthusiasm in people for cleaning up their own river, creek or stretch of waterfront.

Finally, the delays in the RAP process are unfair to those members of the public who have invested so much time and effort in its development. These hold-ups also threaten to make the RAP redundant: while development of the RAP has been dragging, regions and municipalities have proceeded on projects costing millions of dollars — all in the absence of a unifying framework.

For example, Metro Toronto has carried or is carrying out environmental assessments on expanding the Main Sewage Treatment Plant, the R. L. Clark Filtration Plant, and the Don Trunk Sanitary Sewer. It is also studying the future of the North Toronto Sewage Treatment Plant and developing a water conservation strategy. The City of Toronto is conducting a Sewer System Master Plan. Each of these projects has implications for water quality in the watersheds and along the waterfront, and should be taking place with guidance from the RAP. But expanding the Main Sewage Treatment Plant, for example (the subject of one of Metro's environmental assessments), has not been selected as a preferred remedial option because option selection has not yet taken place.

Clearly, completion of the Stage 2 Remedial Action Plan is a priority. The Royal Commission believes that the federal

and provincial governments should take whatever action is necessary to guard against further slippage in deadlines for completing the Metro Toronto RAP.

## RECOMMENDATIONS

**20.** The Royal Commission recommends that the federal and provincial governments use an ecosystem approach in developing the Metro Toronto and Region Remedial Action Plan. This means that:

- as soon as possible, and in advance of the draft Stage 2 document, the problem definition should be rewritten to

For if there is any scale at which ecological consciousness can be developed, at which citizens can see themselves as being the *cause* for the environmental effect, it is at the regional level; there all ecological questions are taken out of the realm of the philosophical and the moral and are dealt with as immediate and personal. People do not, other things being equal, pollute and damage those natural systems on which they depend for life and livelihood if they see directly what is happening; nor voluntarily use up a resource under their feet and before their eyes if they perceive that it is precious, needed, vital; nor kill off species they can see are important for the smooth functioning of the ecosystem.

Sale, K. 1985. *Dwellers in the land: the bio-regional vision*. San Francisco: Sierra Club.

better reflect current information on the causes and sources of ecosystem impairment, and the potential remedial options should be updated to incorporate current information, as well as the input received from the reviews of the RAP committees; a watershed approach should be used to identify the problems, select remedial options, and measure progress; and municipalities should be involved as partners in developing the RAP on a watershed basis.

21. The Royal Commission further recommends that the federal and provincial governments allocate more resources to the Metro RAP, to reflect the actual complexity and scope of problems here, and the size of the population affected.
22. The federal and provincial governments should carry out an effective, continuing program of public awareness and involvement to raise the profile of the RAP and build support for its implementation.
23. The federal and provincial governments should take all steps necessary to eliminate further delays in developing the RAP and should ensure that the target date for completing the draft Stage 2 RAP (late 1992) is met.

### **GREATER TORONTO BIOREGION PROGRAM: RESEARCH AND INFORMATION NETWORK**

Good scientific information, in a form that can be integrated and made

readily available to all stakeholders and interested parties, is a key prerequisite of ecosystem-based decision-making. Throughout its work, the Royal Commission found that there was a great deal of information about the Greater Toronto waterfront and bioregion, but it is scattered in many locations and is difficult to synthesize because of differences in approach and methodology.

In discussing these issues in *Pathways*, its report on the environmental audit of the East Bayfront/Port Industrial Area, the audit team recommended that a research and information network be established, devoted to ecosystem studies in the Greater Toronto bioregion. It noted that many information systems and databases already exist; the fundamental need is to link them together, co-ordinate research efforts, and make information accessible to government agencies, non-profit groups, the private sector, and the public.

Subsequently, the Canadian Centre for Inland Waters (CCIW) convened several exploratory meetings of representatives from interested federal and provincial departments, the Royal Commission, universities, and the private sector. They agreed that a Greater Toronto bioregion information program is essential for future decision-making and management of the environment in the region. Among the initiatives that require such a program are the Metro Toronto Remedial Action Plan, pollution prevention strategies, the Oak Ridges Moraine planning study, the proposed Greater Toronto shoreline regeneration plan, watershed strategies, and ecosystem-based municipal plans.

A prototype information system, RAISON (Regional Analysis by Intelligent

Systems on a Microcomputer), has been developed by the National Water Research Institute at CCIW. It has been used successfully in evaluating the issue of acid rain, and was recently judged by NATO to be one of the most advanced systems of its type in the world.

An information network and ecosystem-based research initiative for the Greater Toronto bioregion is fully compatible with the federal government's Science and Technology Framework for the Green Plan. That plan emphasizes the desirability of partnerships under which the federal government will be able to work with other levels of government to achieve common objectives, applying an ecosystem approach. It also proposes to establish a national environmental information network to support state-of-the-environment reporting and environmental forecasting.

The suggested Greater Toronto Bioregion Program could be a vital part of such a network, focused on supporting decision-making in Canada's area of greatest population concentration, population growth, and environmental stress. This practical program has great potential to begin the vital process of building cooperation among governments, institutions, the private sector, and non-government organizations.

## RECOMMENDATION

**24.** The Royal Commission recommends that the federal government, in concert with other interested parties, establish a research and information network for ecosystem studies in the Greater Toronto bioregion. Such a computer-based network should:

- use new technologies in artificial intelligence and expert systems to compile, synthesize, and output information;
- address existing gaps in scientific understanding of the complex links between socio-economic activities and environmental quality;
- transfer knowledge and technologies to decision-makers in the Greater Toronto bioregion and to the private sector for worldwide marketing; and
- be implemented by a new ecosystem research alliance. Such an alliance could include scientists and environmental managers from regional universities and colleges; representatives of the federal, provincial, and municipal governments; the Centre for Green Enterprise and Industry, the Canadian Waterfront Resource Centre; conservation authorities; the computer industry; environmental consultants; and non-government organizations.

The Royal Commission believes that the eight recommendations in this chapter will move us towards the Metro Toronto RAP goals of "swimmable, fishable, and drinkable" water. If they are implemented, these recommendations should provide, through the IJC, a strong and credible watchdog to oversee clean-up of the Great Lakes. Through a revamped Canada/Ontario Agreement, they should ensure that the commitments made under the Great Lakes Water Quality Agreement are met. Adopting a true ecosystem approach in the Metro Toronto RAP will provide a sound planning framework in which to develop the plan, and a renegotiated Canada/Ontario Agreement will

ensure that funding is available for implementation.

An accelerated MISA will reduce dramatically the pollution entering Ontario's waters and provide a base on which to build future, more comprehensive programs.

Finally, establishing a program to collect comprehensive, integrated, and accessible information on the state of the environment will allow better ecosystem planning, monitoring, and analysis.