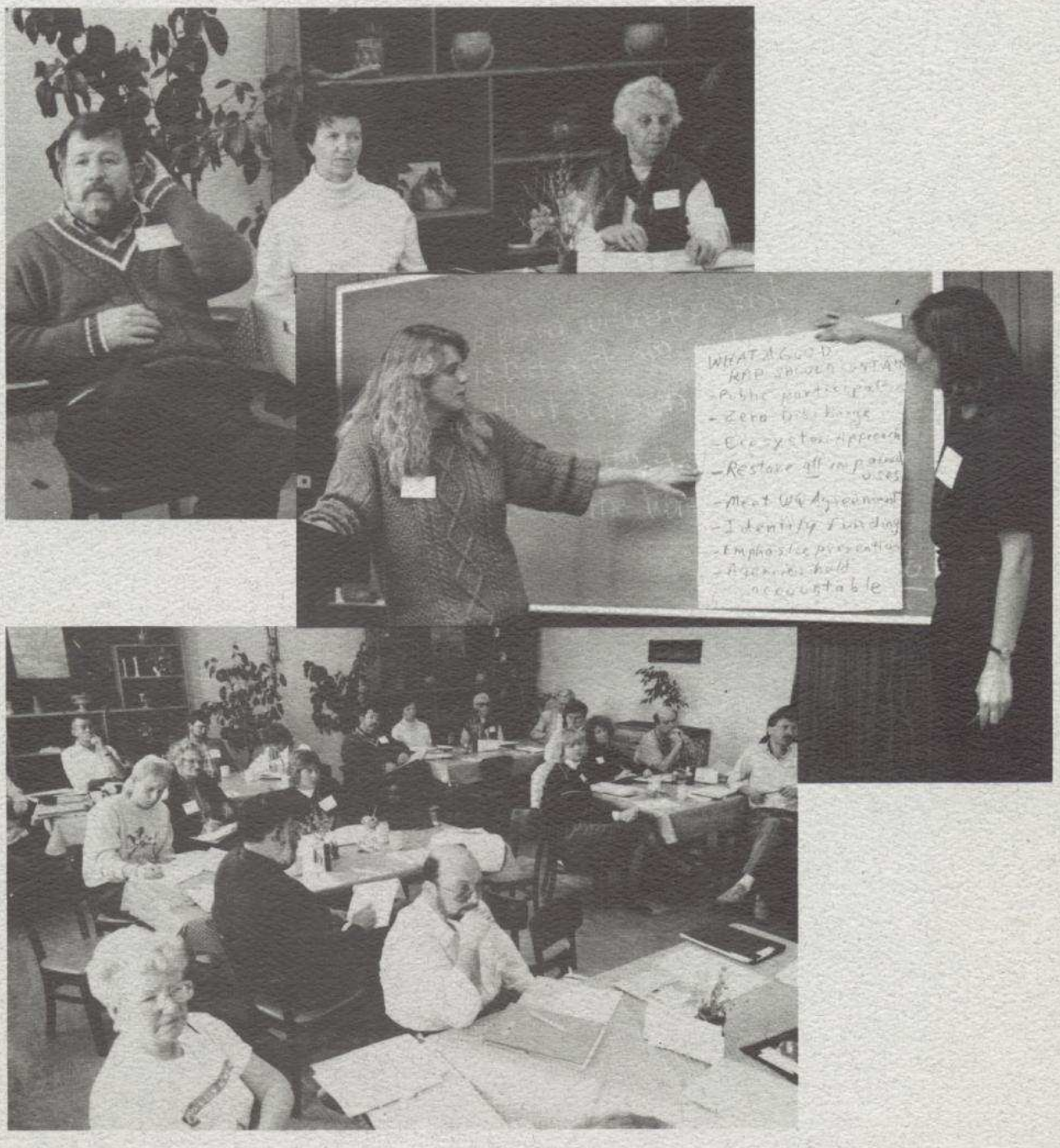
RAP REVIVAL

A Citizens' Agenda for RAPs



Report from:

A Remedial Action Plan Workshop for Citizen Leaders

Sponsored by

GREAT LAKES UNITED

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February 9 - 11, 1990

Stella Niagara, New York

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GREAT LAKES UNITED

ACKNOWLEDGEMENTS

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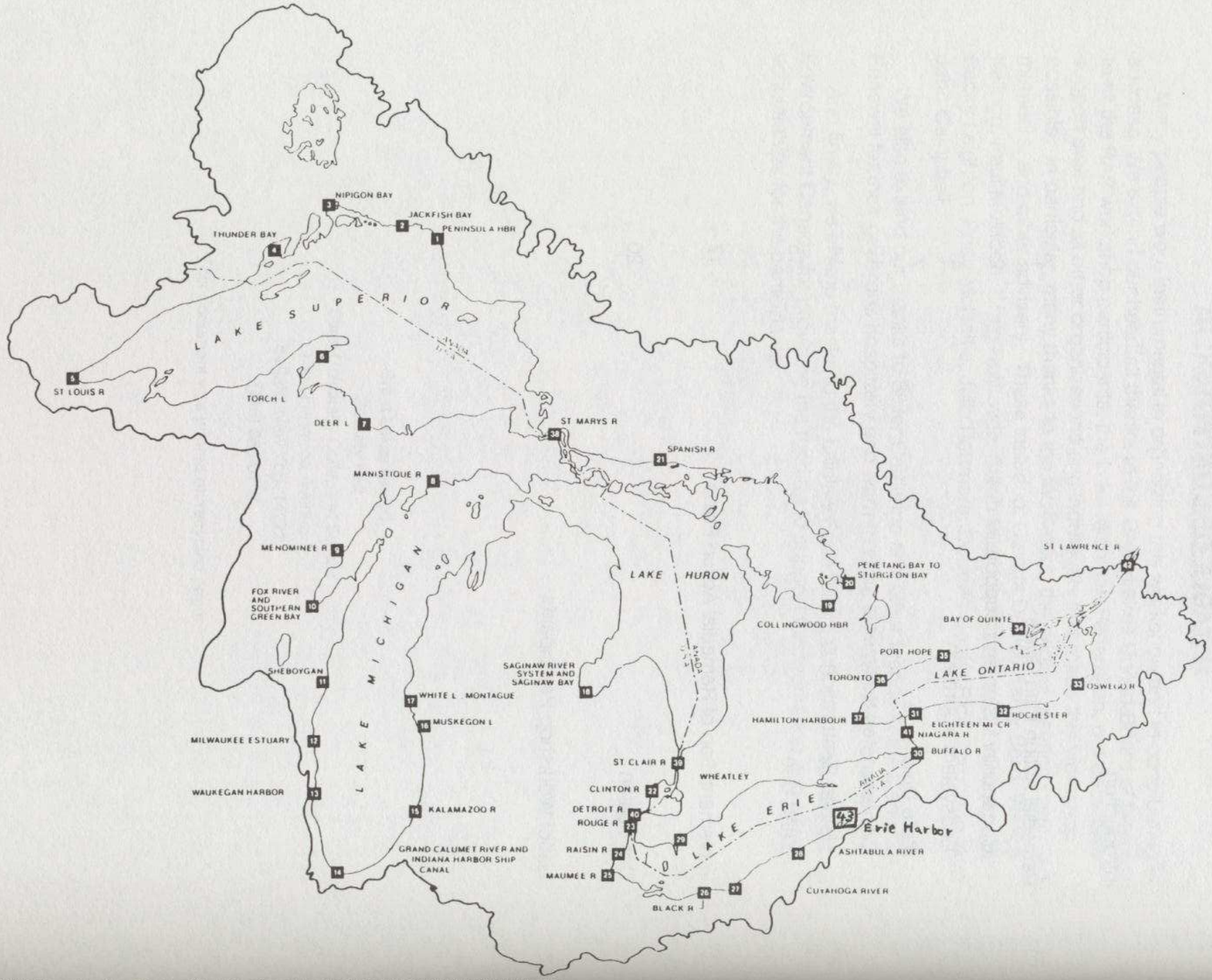

Credit: 1985 Report on Great Lakes Quality, Report to the International Joint Commission.

INTRODUCTION

On the weekend of February 9-11, 1990, seventy citizen activists from throughout the Great Lakes Basin gathered in Stella Niagara, New York, to share common strategies for developing and implementing clean-up plans for the 42 Areas of Concern (AOC). Thirty-one of the forty-two Areas of Concern were represented including those as far away as Duluth, Minnesota and Thunder Bay, Ontario.

The workshop, entitled "RAP Revival: A Citizens' Workshop on Remedial Action Plans," provided a forum for citizens to share ideas, learn new solutions to common problems, and strengthen citizen influence in cleaning up Areas Of Concern.

Background on the 42 Areas of Concern

Since the mid-1970's, there has been recognition that specific areas in the Great Lakes, such as harbors, bays, river mouths, and the connecting channels had severe water quality problems. The degraded conditions prevent the public from enjoying these areas. In many of these areas, fish are contaminated and advisories against consumption are in effect. Swimming in these Areas of Concern is often unsafe.

The IJC's Water Quality Board has listed and reported on areas of concern, originally called "problem areas", since the Board's 1973 report. For 12 years, the efforts to address problems in Areas of Concern were very limited and involved minimal coordination.

In the early 1980's the Water Quality Board recognized that little was being accomplished to actually clean up the Areas of Concern and a new approach was needed. In its 1985 report, the Board formally recommended that a Remedial Action Plan process be adopted. This report contained a table summarizing the governments' assessment of when Remedial Action Plans (RAPs) would be drawn up. All plans were to have been written, although not fully implemented by December, 1986.

In their 1987 revisions to the Great Lakes Water Quality Agreement, the governments of Canada and the United States formally agreed to develop Remedial Action Plans. The public lauded this commitment as a forward-looking, positive approach to the problems in the Areas of Concern. Citizens in each of the 42 Areas of Concern proceeded to put considerable energy into the RAP process and to view it as a source of hope for correcting the problems.

Citizen Involvement in Remedial Action Plans

The hope of many residents of the Great Lakes' most contaminated areas is that the RAP process can focus people's ideas, energies and money to regenerate communities whose natural features have been devastated by human abuse.

RAPs have tremendous potential. However, achieving that potential will only be realized through the determination, diligence, and involvement of citizens in the affected communities.

Citizens have a fundamental right to shape their future. They have lived with the pollution problems and fought for cleanup. They must provide the vision and the commitment for the restoration of their community.

Affected communities in Areas of Concern must work as equal partners with the agencies responsible for developing RAPs. To ensure this partnership occurs, GLU advocated a strong public role in all Great Lakes programs during the 1987 renegotiations of the Great Lakes Water Quality Agreement. As a result, Annex II of the Agreement now says that the public must be involved in RAPs as well as other programs outlined in the Agreement.

To foster greater communication and cooperation, GLU held its first Basin-wide conference on RAPS in September of 1987. This conference brought together citizen leaders and agency personnel to focus on defining the role for citizens in the RAP process. Recommendations and strategies evolved from that meeting to facilitate and ensure public participation.

As evidence mounts about the impacts of toxic chemicals on the health of wildlife and humans in the Basin, citizens have become increasingly alarmed and frustrated with the snail's pace of cleanup and restoration. Three years after the original planned completion dates for the RAPs, only one RAP has actually been drawn up -- Green Bay, Wisconsin. In the other areas, first stage RAPs (the descriptions of the problem) have not yet been completed to the satisfaction of either the IJC or the public. In most areas, work hasn't even begun on what the remedial actions would be. These delays have primarily been a result of the failure of the governments to devote adequate resources to the planning process.

In 1989 Great Lakes United, the Lake Michigan Federation, Greenpeace, and a number of other organizations organized eight workshops around the Basin to discuss citizen goals for restoration of the Basin and to identify strategies for achieving those goals. Citizens uniformly agreed that government and industry inertia and lack of commitment to implementation of the principles and programs in the Great Lakes Water Quality Agreement were the primary obstacles to restoration.

The conclusions from these workshops were expressed at the biennial meeting of the International Joint Commission in Hamilton, Ontario in October, 1989. Hundreds of citizens attended the meeting and testified, one after another, to the Commission about the urgent need for effective cleanup. The lack of commitment on the part of the governments toward implementation of the Agreement, they said, must be changed.

The day following the biennial meeting citizens from throughout the Great Lakes - St. Lawrence River Basin met to discuss strategies for achieving restoration. At this meeting it became clear that citizens involved in RAPs shared many of the same problems and impediments to developing and implementing RAPs. A strong need for a Basin-wide citizen forum to discuss strategies and problems with remedial action plans was expressed. This need stemmed from a feeling that citizens and agencies were "reinventing the wheel" in the development and implementation of RAPs. Greater communication and cooperation were seen as imperative to fostering progress on the RAPS.

A steering committee was formed to give guidance to Great Lakes United in organizing a second RAP conference. A survey was distributed to citizen activists in the Areas of Concern and segments of the responses are contained in this report. From these beginnings the workshop was created.

The Workshop

The purpose of the RAP Revival workshop was to foster communication, share experiences, and develop strategies for resolving mutual problems.

The remedial action planning process is at different stages in each of the Areas of Concern. Some RAPs are in the process of initial development of the Stage 1 RAP document; some are just forming a citizen advisory committee, while others are focusing on implementation of the RAP. Despite the differences in the experience of RAP participants, they all shared one common attribute: they were all active community leaders that brought to the workshop a variety of invaluable skills and experiences.

Workshops were designed to solicit maximum input from the participants. There were no panel presentations, but rather facilitated exchange sessions focusing on specific topic areas.

Friday night citizens met informally and discussed problems within their areas. On Saturday, eight workshops focused on three themes: a) contents of a RAP, b) public participation in RAPs, and c) implementation. In the evening, participants heard presentations on contaminated sediments.

Sunday morning activities focused on building stronger networks and increasing coordination within the Basin. One result from the workshop was a commitment to enhance and strengthen the RAP network within Great Lakes United. A steering committee was set up to evaluate network needs and develop concrete proposals for enhancing communications.

Citizens have played a major leadership role in RAPs. Although problems remain in the public participation process, the focus of citizens' efforts has now shifted to the question of whether RAPs will live up to expectations and will make any difference. Citizens are devoting considerable time, energy and money to the RAP process and want to ensure that they are not wasting their efforts.

Citizens concerns for RAPs now focus on two questions:

What should a RAP contain? and

How can we ensure that the RAP is implemented?

Great Lakes citizen leaders came to Stella Niagara, New York, to develop answers to these questions. Out of the workgroup sessions a series of recommendations were developed to provide guidance to citizens and governments in creating and developing RAPs. These recommendations are compiled in this report.

It is clear from the workshop that the public is determined to make the RAPs work -- to not give up despite considerable frustration. It is Great Lakes United's hope that these efforts will be fully rewarded by the restoration of a clean and healthy Great Lakes ecosystem.

REMEDIAL ACTION PLAN GOALS

"*The purpose of the Parties is to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem.*"
[Article II, Great Lakes Water Quality Agreement]

As of 1990, forty-two areas in the Great Lakes have been identified by the IJC's Water Quality Board as Areas of Concern. A forty-third area – Erie, Pennsylvania – has been recommended by the IJC to be designated an Area of Concern. These are places where water pollution and other factors over the years have severely affected the quality of life for humans, wildlife and aquatic organisms. The Federal, Provincial and State Governments in the Great Lakes Basin have committed themselves to develop Remedial Action Plans (RAPs) aimed at cleaning up each of the Areas of Concern.

RAPs are a source of hope for many of the people living in the Great Lakes Basin. Not only do they offer the opportunity to participate in a community-based, comprehensive planning process, but they provide the framework for obtaining enough resources to clean up the Great Lakes' most severely contaminated areas. However, citizens at the workshop expressed anger at the lack of clear commitments on the part of the governments to fulfil the promises of RAPs. Citizens want the pollution in the Basin to cease, and the cleanup and restoration to begin in earnest. For residents in the Basin, their future and that of their children is dependent upon the commitment to end contamination.

The RAP goals developed by citizens at the workshop emphasize these concerns and the need for action. Citizens want the RAP to aim high -- to represent a vision of the future for the area that will endure. Specific goals for RAPs were enunciated.

RAP GOALS

The RAP must:

Embody community vision and support.

Incorporate the ecosystem approach.

Achieve zero discharge.

Cleanup contaminated sediments.

Create and restore habitat.

Establish land use policies for the AOC.

The following sections summarize the comments and recommendations from citizens regarding the definition and refinement of these goals for RAPs.

Community Vision and Support

The Parties, in cooperation with the State and Provincial Governments, shall ensure that the public is consulted in all actions undertaken pursuant to this Annex. [Annex 2.2 (e), Great Lakes Water Quality Agreement]

Citizens in communities throughout the Basin have enormous expectations for RAPs not merely because RAPs offer the possibility of cleaning up contaminated areas but, more importantly, they offer the chance of restoring lost community treasures. For many communities the Area of Concern is more than a body of water; it is a place their grandparents took them. It is a place the community once owned, not in the sense of material ownership, but rather in the sense that the place was a part of the community's identity. In losing these places to degradation and development, communities throughout the Basin have lost a sense of themselves and of the relationships that bound them together. RAPs offer the potential of restoring this ownership -- this essential piece of community. Because of this, enormous potential exists to create a broad-based constituency that will support, develop and implement the RAP. Given the enormity and expense of cleaning up these areas, and given that decisions made about a RAP will have tremendous impacts on the community, it is imperative that this constituency is nurtured and respected.

RECOMMENDATIONS

A definite and firm commitment to public participation must be incorporated consistently throughout the RAPs. To date, public participation in RAPs has been inconsistent and frequently inadequate.The benefits and necessity of public participation require that agencies devote more attention to this issue.

Benefits of Public Participation

Comments from the RAP Workshop

1. Public support equals political will.
2. Creates public demand for remediation.
3. Creates and revitalizes ownership of the AOC and consequent support for RAP recommendations.
4. Develops constituency to exert political pressure.
5. Identifies and develops new environmental leaders.
6. Educates larger community about environmental problems.
7. Educates decision-makers.
8. Disseminates information throughout the community.
9. Creates public willingness to contribute to cost of remediation, where appropriate.

Citizens should be involved in all phases of Remedial Action Plans, from development through implementation.

Citizens view their participation in RAPs as a long-term endeavour. Long-term includes the initial identification of contaminant sources and remediation strategies, as well as oversight of the RAP implementation.

RAPs must develop aggressive public involvement and outreach programs.

Public outreach programs must strive to identify and develop a community vision and a supportive constituency for the RAP.

The governments should provide adequate resources and staffing to ensure that the public is involved in RAP planning and implementation.

Resources and staffing are needed to prepare and implement the RAP, assist citizen advisory committees, and fund long-term public outreach and involvement programs.

Citizens should be involved in all decisions which affect their community including permitting, site cleanup, and development of restoration plans.

Issuance of discharge permits, development of education programs for non-point source pollution and other such actions impact on Areas of Concern. For citizens "technological decisions" have social impacts and ultimately are rooted in value judgements made by industry or government agencies. A decision to use a less expensive control technology, rather than one that would reduce pollution more effectively, is a value judgement about the importance of the economic costs to industry versus pollution of the community and the ecosystem. For this reason, it is imperative that citizens be involved in the full range of decisions that affect an Area of Concern.

RAPs must be representative of, and responsible to, the community vision.

This vision can be interpreted through a variety of mechanisms, including surveys and various public involvement forums. One participant described the process of public outreach in terms of "touching the heart". We must understand how these issues touch people's hearts and appeal to them on that level.

The governments must abide by and implement the recommendations developed in the RAP.

Citizens are concerned that all their hard work and long hours in developing RAPs will only end up on a shelf in some government library. Governments must ensure that adequate resources and staffing are provided to carry out implementation. This implementation must occur in a manner responsive to citizens' concerns and recommendations.

The governments must provide funding and resources to foster and promote communication between citizens participating on RAPs.

Citizens repeatedly stressed the need for more communication between RAPs in order to share problems and solutions. Enhancing communication will alleviate "reinventing the wheel" at each AOC.

Citizens participating on RAP advisory committees must maintain their involvement in community organizations outside the RAP committees.

Citizen advisory committees and subcommittees cannot supplant the community organizations from which their members were drawn. Community organizations provide support to advisory committee representatives and ensure that the process truly reflects the community vision for the area.

Ecosystem Approach

> *"Remedial Action Plans and Lakewide Management Plans shall embody a systematic and comprehensive approach to restoring and protecting beneficial uses in Areas of Concern or in open lake waters."* [Annex 2.2(a), Great Lakes Water Quality Agreement]

The 1978 Great Lakes Water Quality Agreement adopted the ecosystem approach as a guiding principle for the cleanup and restoration of the Great Lakes Basin. This principle was echoed throughout the Agreement by inclusion and recognition of air pollution and land use as significant contributors to Great Lakes Basin pollution problems. Impairment of beneficial uses, a basis to evaluate the extent of problems within an AOC, recognizes not just human uses, but protection of fish, wildlife and benthos from harm by contamination and destruction of habitat.

Despite the visionary thrust of the ecosystem principle, implementation has often been hampered by lack of clear definition and by bureaucratic inertia. In some instances, agencies have attempted to limit the scope of Remedial Action Plans to address water quality issues only.

One reason the Great Lakes are still plagued by toxic chemicals is that most environmental agencies are structured with separate divisions in charge of air, water and land. Decisions made by these agencies to protect water quality by preventing discharges into the water may merely transfer the pollution to other media such as air.

The ecosystem approach affirms the interconnectedness of all components of the ecosystem, of which human beings are an integral part. The traditional methods of pollution "control" such as dilution and dispersal and end-of-pipe technologies that merely transfer pollutants from one medium to another within the ecosystem are not consistent with an ecosystem approach. A multi-media approach which takes into account the loadings of pollutants from all sources and into all media is needed.

RECOMMENDATIONS

A Workable Ecosystem Approach Must Be Defined and Include the Following Components:

In recognition that the definition of ecosystem approach is vague, citizens at the RAP workshop began to define the concept. The following are critical aspects of that definition:

1. The ecosystem approach must encompass all components of the environment -- physical, chemical and biological. It must look at all media -- air, land, and water. And it must incorporate energy and matter flows.
2. An ecosystematic approach to restoration and protection of the Great Lakes Basin must be comprehensive, not only in its evaluation of the physical and biological environment, but in its incorporation of diverse approaches to pollution control and cultural values as well.
3. An ecosystem should be defined by both geographic boundaries and by pollutant sources as follows:
   a. Geographical boundaries such as a watershed or airshed.
   b. Human behavior which contributes to the production or elimination of pollution problems must be considered in the RAP (i.e. sociopolitical boundaries).
   c. The sources of pollution must be identified. Their boundaries may be broader than other boundaries that are defined.
   d. Prevention of pollution, or going to the source of pollution, must be paramount.
4. An ecosystem approach must be long-term in its vision.

Citizens believe that restoration of the Great Lakes will only occur if we eliminate our short-term perspective and begin now to identify strategies which will ensure the protection of our Great Lakes for future generations. Sustainable economic development and pollution prevention strategies are two approaches to reducing pollution in the Basin over the long-term.

"The RAP only includes the lower 23 miles of the Kalamazoo even though over 80 miles of the River are contaminated with PCBs. The RAP deals specifically with the PCB problem and doesn't address non-point, urban, stormwater, and other pollution problems. Also, the PCB problem as defined in the RAP doesn't adequately deal with the impacts of PCBs on wildlife."

Citizen, Kalamazoo River AOC

"On balance, I'd say it [the Buffalo River RAP] moves toward an ecosystem approach. The 1987 guidance from the IJC was extremely helpful. But there is little data available to adopt a true ecosystem approach. Since 'no data' becomes 'no problem,' the delisting criteria become very important."

Citizen, Buffalo River AOC

"Hamilton RAP has established an ecosystem committee. While the goals and principles of the RAP encompass ecosystemic principles, the committee's review of existing agency actions and programs, and remedial options and programs, [showed that] many of them can't be termed ecosystemic. There's a need to find a process to infuse these principles into practice."

Citizen, Hamilton Harbour AOC

Government Agencies should acquire ecosystem based information and data.

There is currently inadequate information with which to assess ecosystem impacts and develop appropriate recommendations for remediation. Citizens recommend that agencies develop ecosystem-based information, including information on pollutant sources and loadings and socio-economic data. This information should be contained within the RAP and periodically updated.

"We are working on watershed plans simultaneously because we recognize that what we put in county streams (suburban development, agriculture, industry) ends up in Lake Ontario. We also recognize that we have little or no control over atmospheric deposition of pollutants and the preserve of toxic contaminated fish that are exotic to the Rochester Embayment."

Citizen, Rochester Embayment AOC

RAPs must identify and evaluate all sources of pollution to the Area of Concern.

Sources of pollution to an Area of Concern include not only point discharges to water but non-point sources such as landfills and agriculture, and atmospheric transport of pollutants from incinerators and other sources. These sources must be acknowledged and strategies to address them developed.

Stream classification systems should be abolished.

Stream classification systems are in direct conflict with the principles and goals of the Great Lakes Water Quality Agreement. Classification systems are not based on the ecosystem approach, nor do they strive to achieve zero discharge. They are predicated upon the assumption that specific waterbodies can receive different amounts of pollutants depending upon the use classification they are given. The extreme of this situation is that some rivers and harbors are essentially industrial and municipal sewers because they are only classified as suitable for fish survival.

Use classifications can ignore actual "uses" in the area. For example, the classification of the Buffalo River in New York State, does not identify swimming and fishing uses as appropriate for the area, even though these uses are occurring. The State's position has been, if the River is not classified for swimming, then the use is not impaired, even if the reality of the situation is that pollution levels are preventing swimming from occurring safely.

State, provincial, and federal governments should not use "pollution credits" in regulatory control programs.

For citizens, pollution in the Basin must be eliminated. By allowing industry to have pollution credits, regulatory programs will not fully reduce the loading of pollutants entering the ecosystem. Control programs must be driven by pollution reduction and ecosystem goals.

Remediation of hazardous waste sites, contaminated sediments, etc. must achieve a permanent reduction in the toxicity of the waste material.

Remediation has frequently meant transferring waste from one place to another. For example, waste from hazardous waste sites is frequently dug up and transported to licensed hazardous waste landfills and incinerators. From there the waste is transferred back to the ecosystem through air pollution or water pollution. Remediation must eliminate pollution and not merely transfer it.

Fish consumption advisories must be re-evaluated and upgraded and fish stocking programs revamped to reflect the realities of pollution uptake in fish.

Citizens expressed profound concern about contaminated fish in the Basin and the inadequacy of current regulatory programs to protect citizens from polluted fish. In addition, citizens were concerned about the inadequacy of education and outreach programs aimed at informing the public of the potential harm from eating contaminated fish. Citizens felt that RAPs must address these issues locally, and incorporate recommendations regarding education and outreach in relation to fish consumption advisories.

Zero Discharge

(i) The intent of programs specified in this Annex is to virtually eliminate the impact of persistent toxic substances in order to protect human health and to ensure the continued health and productivity of living aquatic resources and human use thereof;

(ii) The philosophy adopted for control of impacts of persistent toxic substances shall be zero discharge; and

(iii) The reduction in the generation of contaminants, particularly persistent toxic substances, either through the reduction of the total volume or quantity of waste or through the reduction of the toxicity of waste, or both, shall, wherever possible, be encouraged.

[Annex 12.2 (a), Great Lakes Water Quality Agreement]

In signing the Great Lakes Water Quality Agreement, the governments firmly committed themselves to the virtual elimination of persistent toxic substances in the Great Lakes Basin and to the prevention of waste generation in general.

RAPs offer the opportunity to develop blueprints for zero discharge around the Basin. Citizens, scientists, and others feel that the technology is available and that action to institute zero discharge must begin immediately, before its too late. The debate over the achievability of zero discharge has tended to obscure actual progress being made to implement zero discharge programs. It also does not reflect the

philosophical and attitudinal changes taking place within industry. Rather than becoming mired in the rhetorical debate over zero discharge, RAPs must be utilized as models for zero discharge throughout the Basin.

Citizens at the workshop embraced the concept of zero discharge and initiated the development of the blueprints by defining zero discharge and developing recommendations to the governments.

CITIZEN'S DEFINITION OF ZERO DISCHARGE

Zero means zero.

For citizens in the Great Lakes Basin zero means that discharges of pollutants to the Basin will cease. Government personnel frequently refer to zero discharge as a philosophy, but for citizens achieving zero discharge of pollutants is an attainable reality.

Virtual elimination and zero discharge mean the elimination of discharges of persistent toxic chemicals beyond the level of detectability in fish and wildlife.

Virtual elimination of persistent toxic chemicals is sometimes defined as the elimination of discharges to the extent that such chemicals can no longer be detected in the effluent stream. However, monitoring of the effluent stream only does not protect the health of the ecosystem. Non-detectability must refer to the absence of persistent toxic chemicals in the undiluted waste stream and in selected biological indicators. Consideration should be given to selecting certain species of fish and wildlife as ecosystem health indicators.

Zero discharge of pollutants must be approached from a multi-media perspective.

Citizens believe that we can no longer transfer pollution from one environmental medium to another but must be comprehensive in our approach to zero discharge.

Zero discharge must incorporate pollution prevention strategies that will eliminate the use and production of toxic substances altogether and employ strategies that will reduce the toxicity and volume of any waste products that may be produced.

Preventive strategies seek to eliminate the creation of toxic substances at the point of production, rather than attempting to control their release and fate in the ecosystem after they are produced.

Zero discharge applies to both point and non-point sources of pollution.

Non-point sources include hazardous waste sites, agricultural runoff and pollution, urban runoff and combined sewer overflows, and air pollution.

Zero discharge and virtual elimination mandate that industries must clearly demonstrate that new chemicals introduced on the market will not cause harm to human health and the environment through a variety of pathways, through synergistic reactions with other chemicals, or through biomagnification and bioconcentration.

RECOMMENDATIONS

The states and provinces and the federal governments must develop and implement comprehensive source reduction programs through laws and regulations, technical assistance and other incentive programs.

Source reduction programs must include: laws and regulations mandating pollution prevention; reduction timelines and goals; adequate data and reporting requirements with which to gauge progress; waste reduction audits; industry specific reduction plans; and technical assistance programs.

The goals of zero discharge and virtual elimination must be clearly enunciated in the RAP.

Zero discharge is not a "concept" or "philosophy" for citizens in the Basin; it is an attainable reality which they perceive to be their best hope for the preservation of the Basin and its inhabitants.

Specific timelines for achieving these goals must be established to ensure that zero discharge occurs.

Control strategies aimed at limiting the discharge of pollutants at the "end-of-the-pipe" are considered short-term, interim strategies for reducing pollutant discharges to specific environmental media. Long-term controls must employ pollution prevention strategies which will eliminate the use of hazardous materials and therefore their production.

Industries must identify, evaluate and implement strategies for reducing pollution.

A number of approaches can be employed in order for companies to reduce waste including: 1) changing the raw materials of production, 2) changing production technology and equipment, 3) improving production operation and procedures, 4) recycling waste within the plant, and 5) redesigning or re-formulating end products.

New industrial facilities should be zero discharge facilities.

Citizens voiced a clear vision for future industrial activity, that is, it will no longer be acceptable for industry to pollute the environment.

Existing industrial facilities must establish goals, timelines and commitments of sufficient resources and staff to achieve zero discharge.

Citizens expect existing facilities to reduce pollution levels substantially in the coming years. Timelines for reductions must be developed to achieve specific goals.

INCORPORATION OF ZERO DISCHARGE IN THE RAPS

Results From the GLU Survey Of Citizens Involved With RAPs

In the survey sent to citizens participating in RAPs, we asked two questions on Zero Discharge:

a. Has the RAP established goals, principles and programs that will achieve zero discharge of toxic chemicals?

b. Has the RAP established timelines for achieving zero discharge? Are these timelines being met? If not, identify why.

Citizens from 25 out of the 42 AOCs responded to the survey. Out of the 25 AOCs represented the following results were tallied:

* 12 out of 25 have not established goals, principles, and programs that will achieve zero discharge.

* 2 out of 25 do not have active discharges to the AOC.

* 3 out of 25 were unfamiliar with principle of Zero Discharge.

* 2 were in the process of developing goals.

* only 2 out of the 25 incorporated Zero Discharge into the RAP.

The tallies for question (b) echoed the results from the first question with additional comments, some of which we've listed below.

"We have a large wish list of goals based on everyone's input and are in the process of distilling this. Some people (but not all) have identified zero discharge of pollutants as a goal... Timelines have been proposed but we are still refining these." Citizen, St. Louis River AOC

"Zero discharge has not been clearly defined — we have a general commitment to follow the Great Lakes Water Quality Agreement." Citizen, Cuyahoga River AOC

"No, DEC [New York State Department of Environmental Conservation] says it lacks the power to do this." Citizen, Buffalo River AOC

"The governments say that Ontario's MISA Program will eventually address direct discharges. The public is largely in the dark about how MISA will affect Hamilton Harbour. The MISA program itself is behind schedule and in flux and it is unclear just when its implementation will result in toxic reductions. It is unclear if the RAP process can demand more ambitious targets than MISA ones. For many issues there is a need to understand and clarify how RAPs and MISA programs interact." Citizen, Hamilton Harbour AOC

"MISA is a long, bureaucratic process based on BATEA (Best Available Technology Economically Achievable) not zero discharge." Citizen, Hamilton Harbour AOC

A ban on the use, production and discharge of all persistent toxic chemicals must be instituted immediately.

Citizens are extremely concerned about the build up of persistent toxic substances in the food chain. Immediate action must be taken to eliminate the release of these chemicals into the environment. Virtual elimination and zero discharge assume that there are a number of toxic chemicals, in addition to the persistent toxic chemicals, that will have to be phased out according to a timetable and schedule.

A communication network and comprehensive data base on pollution prevention strategies must be developed.

This information must be easily accessible to the RAP participants, to industry, to agency personnel, and to citizens. This information is crucial to understanding the type of in-plant process changes that can be made which will reduce pollution.

"Cradle-to-grave" tracking of chemicals should be initiated and enforced.

In general, more specific data regarding the use, production, consumption, and ultimate destination of chemicals needs to be developed in order to accurately assess source reduction measures taken and options available for specific industries.

Citizens, governments, and industries must identify ways to reduce the demand for hazardous materials.

Citizens felt that all sectors of society have a role to play in implementing pollution prevention strategies. All sectors can alter current purchasing practices for hazardous and non-recycled materials in order to reduce the demand for these materials.

Municipal and local governments must establish goals, timelines, and programs for the intensive recycling and reduction of solid waste.

Landfills and incinerators are contributing to pollution throughout the Basin. Citizens feel that government efforts to abate the solid waste crisis have been short-sighted and inadequate. Governments must establish aggressive goals (greater than 50% of materials recycled) and programs for recycling and waste reduction and promote markets for recycled materials.

The governments should develop a permitting process which integrates discharges to air, land, and water, in order to reduce intermedia transfer of pollution and to ensure that pollution prevention strategies are implemented.

End-of-pipe control technologies have frequently shifted pollution from one environmental medium to another. For example, controls on wastewater discharges may create more sludge materials which are either landfilled or incinerated. Intermedia transfer of pollutants is not pollution reduction.

Publicly owned sewage treatment plants must adopt and implement aggressive pretreatment requirements for industrial dischargers that force the adoption of zero discharge programs.

Increasingly, industries are discharging waste waters to publicly owned treatment plants rather than discharging directly to rivers and lakes. Frequently, these treatment plants are not equipped to handle the toxic soup they receive on a daily basis. Much of the toxic material, therefore, passes through the plant untreated. Taxpayers should not bear the costs for treatment of industrial wastes. Industries using treatment facilities must be required to develop goals, timelines and programs for achieving zero discharge.

RAPs must identify non-point sources of pollution and develop plans for the elimination of pollution from these sources.

In some areas non-point pollution is a significant contributor of pollution to an AOC. Citizens felt that non-point sources of pollution are not scrutinized sufficiently within the RAPs. Frequently, the geographical scope of the RAP is narrowly defined by an agency to evaluate specific problems such as water discharges and, as a consequence, non-point problems are not addressed.

Hazardous waste sites must be cleaned up.

Citizens are concerned about the lack of progress in remediation of hazardous waste sites. These sites must be cleaned up permanently and in an environmentally sound manner. In addition, alternative, environmentally sound technologies for the treatment, degradation, and extraction of waste materials must be explored and utilized.

RAPS must evaluate the adequacy of spill prevention strategies and devise prevention strategies where necessary.

Spills are a major source of contamination in the Basin. The potential for devastation of drinking water supplies and environmental harm from spills is enormous.

We should evaluate our "need" for chemicals.

Each individual must assess their use of toxic chemicals and strive for reductions.

Contaminated Sediments

> *The Parties shall, in cooperation with State and Provincial Governments, identify the nature and extent of sediment pollution...develop methods to evaluate both the impact of polluted sediment on the Great Lakes System, and the technological capabilities of programs to remedy such pollution. Information obtained through research and studies pursuant to this Annex shall be used to guide the development of Remedial Action Plans and Lakewide Management Plans...*[Annex 14, Great Lakes Water Quality Agreement]

Contaminated sediments are a problem shared by many communities throughout the Great Lakes Basin. Forty-one of the forty-two Areas Of Concern have contaminated sediments. These sediments represent the legacy of neglect and abuse in the Areas of Concern. Frequently, those responsible for the pollution are no longer in business, or the contamination is so extensive that it is impossible to identify the culprits. Therefore, the governments and the citizens are left to cleanup the sediments. This will not only be a monumental task, but it will be horrifically expensive.

The need to remediate contaminated sediments is immediate. The sediments serve as a reservoir for pollutants in the Great Lakes. This reservoir acts as a continuous source of pollution to the food chain and the Basin ecosystem.

Current regulations guiding the removal, cleanup and identification of contaminated sediments are inadequate to protect human health and the environment. Government actions to address the problem of contaminated sediments have been limited. Some progress has been made in evaluating treatment technologies and assessing contaminant problems, but stronger efforts to address this problem are needed.

RECOMMENDATIONS

The governments must develop comprehensive sediment criteria and standards which will guide the remediation and dredging of sediments throughout the Basin.

Citizens realize that the development of criteria and standards may be a long process. They urge governments to develop criteria and standards for contaminated sediments in an expeditious and thorough manner. And, further, that development of criteria and standards should not delay the cleanup of contaminated sediments.

Standards for contaminated sediments must be rigorous and must reflect the relationship between the sediments and the biological community.

Interim criteria and standards should be used where applicable, until formal criteria and standards are developed.

"Sediments: we haven't dealt with this at all yet...By the time implementation comes, all of the RAP's program money will have been spent on fine dining and tasteful accommodations."

Citizen, Peninsula Harbour AOC

"Yes [there are barriers], the costs of a complete cleanup on the river could easily exceed $500 million dollars. In addition, cleanup standards have not been established for isolating or removing PCBs in sediments."

Citizen, Kalamazoo River AOC

These standards must be uniform throughout the Basin.

All contaminated areas in the Basin should be cleaned up and restored; there can be no pollution sacrifice areas.

Specific goals, objectives and timetables must be established for the cleanup of contaminated sediments within the RAPs.

The enormous volume of contaminated sediments, the lack of adequate technologies for treatment, and the enormous costs for cleanup will make the sediment problem one of the most difficult to address. This will be a long-term endeavour which

will have dramatic consequences for the Basin. Without specific goals, timelines and commitments for implementation, contaminated sediments will continue to pollute the Basin.

Rigorous programs to reduce sedimentation and pollution to sediments must occur simultaneously with sediment removal and cleanup.

Efforts to clean up contaminated sediments will be wasted if the sources of contaminants and excessive sediment erosion are not halted. For example, each year the Maumee River carries to Lake Erie 2.0 million tons of silt. Practices to end soil erosion must be implemented in order to reduce this massive siltation problem.

Habitat Restoration

> *Significant wetland areas in the Great Lakes Basin System that are threatened by urban and agricultural development and waste disposal activities should be identified, preserved and, where necessary, rehabilitated.* [Annex 13.3, Great Lakes Water Quality Agreement]

For many residents in the Basin, Areas of Concern are remembered as pristine natural areas that once harboured secret swimming holes, spawning grounds for fish, and sanctuary for birds and other wildlife. Urban, agricultural, and industrial development destroyed wetlands and other vital habitat. It is estimated that two thirds of the wetlands in the Great Lakes Basin have been destroyed.

Given the importance of wetlands in sustaining the ecological integrity of the Basin, citizens at the workshop stressed the need for RAPs to address habitat issues.

RECOMMENDATIONS

RAPS must clearly adopt a policy of protecting and increasing the quantity and quality of wetlands and other vital habitat crucial to fish and wildlife.

In the development of the RAP, guidance must be given to municipalities regarding future development in the AOC, and its impact on fish and wildlife habitat. The RAP will be incomplete if the need for restoration and rehabilitation of wetland and other critical fish and wildlife habitat is not addressed.

Land Use

The Parties, in cooperation with State and Provincial Governments, shall continue to develop and implement programs and other measures to fulfil the purpose of this Agreement...The programs and measures shall include the following:

e(vi) Measures to encourage and facilitate improvements in land use planning and management programs to take account of impacts on Great Lakes water quality...

[Article VI, Great Lakes Water Quality Agreement]

Future development in an AOC must be environmentally sustainable and reflect the community vision for the Area of Concern. In many instances, improper land use planning in the past has resulted in highways and dumps along our most beautiful rivers and shorelines. Land use planning not only has the potential to protect scenic and wild areas, it provides guidance about appropriate future development.

RECOMMENDATIONS

All RAPs must address the issue of land use planning and establish guidelines for future development in the AOC.

The recommendations from the Buffalo River Remedial Action Plan and the Hamilton Harbour Stakeholders Report displayed in the box on the next page are examples of how this can be achieved.

All major developments in an Area of Concern must undergo environmental impact reviews in order to assess their impact upon the AOC.

Given the enormous amount of time, resources, and energy expended by citizens and governments to restore Areas of Concern, it is essential that new developments are reviewed to determine their consistency with the RAP and to determine if the proposal will cause impacts to the environment. Only through the utilization of these analyses can development projects be evaluated to determine their compatibility with the community vision for the area.

Considering the fragile nature of the Great Lakes Basin, "Master Plans" or some comprehensive planning process for the Basin should be employed to identify sustainable, environmentally and economically sound development for the future.

Buffalo River Citizens' Committee

General Recommendations for Future Land Use in the Buffalo River Area

1. Plans for multiple land use along the Buffalo River should include green areas, public access and recreation areas, shallow waters for fish habitat and propagation, and new non-polluting industries.
2. State and local governments should acquire and reserve land for public access, environmental conservation, and community enhancement.
3. A safe environment for new development should be assured...
4. Environmental Impact Studies that are prepared for projects in the Buffalo River AOC should be required to address the 1987 Great Lakes Water Quality Agreement criteria for remedial action plans.
5. An Environmental Impact Statement should be prepared, as required by law, for the Waterfront Plan.
6. The delay of or interference with the RAP remedial process from land use development should be prevented.
7. Hazardous material use and waste in the Buffalo River AOC should be reduced.

Specific Recommendations

1. An Environmental Discovery Center and park at 100 Bailey Avenue should be developed.
2. The Waterfront Horizons Commission, as one of the first tasks, should develop a comprehensive citizen participation plan.
3. The Erie County Department of Environmental Planning, as well as municipal governments in the Buffalo River area, should promote the use of alternatives to pesticides for commercial and residential application.

From: Buffalo River Remedial Action Plan Summary, March 1989, Chapter Eleven, Land Use in the Buffalo River Area

Hamilton Harbour Stakeholders Report

... the Stakeholders held the view that the principles of public access and aesthetic improvements are essential to the successful implementation of the RAP. Th Stakeholders recommended the final Remedial Action Plan should include:

" A shoreline management strategy, which would integrate in a comprehensive fashion, the following four concerns: 1) Visual Access; 2) Major and minor nodes and area of physical access; 3) Fish and Wildlife Habitat; and 4) Existing industrial, residential and recreational land uses."

" Underscoring this strategy, is the assumption that:

Public access is an important factor in achieving public awareness and support for Hamilton Harbour remedial actions;

That public support for these actions will result in water quality improvements, leading to community benefits; and,

That increased access is a key to achieving remedial actions and should become part of the overall solution whilst recognizing that access is a local authority concern."

From: Hamilton Harbour Stakeholders Report, Goals & Objectives, Section III 2.2.2

IMPLEMENTATION OF RAPS

The Parties commit themselves to seek:

(a) The appropriation of the funds required to implement this Agreement...

(b) The enactment of any additional legislation that may be necessary in order to implement the programs and other measures provided for...

(c) The cooperation of the State and Provincial Governments in all matters relating to this Agreement.

[Article XI, Great Lakes Water Quality Agreement]

In signing the Great Lakes Water Quality Agreement, the governments committed themselves to implementing the tenets of the Agreement. Some gains have been made such as in reductions of phosphorous loadings to the lakes. However, progress towards ridding the lakes of toxic chemical contamination has not been so dramatic. For citizens there is no time to waste; the impacts of pollution are taking a toll on wildlife and human health in the Basin. The governments' commitment to the development and implementation of RAPS has not been sufficient. The recommendations that came out of the workshops all reflect a common theme: the governments must make a stronger commitment to the restoration of the Great Lakes Basin.

RECOMMENDATIONS

RAPs should be put into law in both the U.S. and Canada.

Citizens feel it is essential that RAPs become legal instruments that government agencies and industry must be accountable to.

The National Wildlife Federation has petitioned the U. S. federal government under section 304(l) of the Clean Water Act to make RAPs legally enforceable. Citizens at the workshop supported this petition and felt it was a good first step towards making RAPs enforceable.

The governments must commit to allocating responsibility for cleanup and restoration.

If the cleanup and restoration of the Basin are to be achieved, adequate funding must be supplied to accomplish the work. The amount of money needed will be tremendous. The costs for cleanup and restoration in the Basin should be born by the polluters. Citizens feel that polluters must pay for pollution. Taxpayers should not be forced to bear the burden of pollution and its cleanup. Where responsibility for the damage is unclear, the governments will have to identify other sources of funding.

The governments will have to obtain this money through damage claims and enforcement actions against polluters or through other means (such as increased feed stock taxes on hazardous chemicals).

The governments must commit adequate staffing and resources to the implementation of RAPs.

The Canadian governments have been much more responsive in providing funding for the development of RAPs than the U.S. federal and state governments. However, neither of the two federal governments or state and provincial governments have clearly enunciated a financial and regulatory commitment to implementing RAPs.

RAPs must establish goals and timelines for implementation and set priorities for cleanup and restoration.

Citizens feel that the work on implementation must occur simultaneously with the development of the RAP document. However, this work should be done within the context of the RAP and the visionary thrust that it brings to cleanup.

There must be stronger and more coordinated enforcement of toxics related laws and regulations.

RAPs must be integrated into existing regulatory programs.

RAPs overlap with a number of different regulatory programs and must be integrated with them. Other regulatory programs must embody the goals and vision of the RAP.

The federal governments must develop legally enforceable, uniform federal water quality standards and implementation procedures.

Currently, water quality standards throughout the Basin are not consistent. Consequently, citizens are faced with situations in which different states have different standards for the same body of water. This is contrary to the concept of the ecosystem approach and to the Great Lakes Water Quality Agreement. All water quality

"No monies for public outreach have as yet been made available. No public outreach committee for the past year. Thus no outreach and no public support."

Citizen, St. Lawrence - Massena AOC

"There has been no money specifically targeted for implementation yet, but some funding is being requested through the state [Minnesota] legislature."

Citizen, St. Louis River AOC

"I am surprised that I have heard nothing since the original meeting...Had I been kept informed I would have been able not only to know what is happening but I might have been able to make further contributions."

Citizen, Wheatley Harbour AOC

"Remedial action has been carried out and mercury levels are now higher than before remedial action was carried out. Michigan DNR began stocking one million walleye fry a year as part of the RAP and continues to stock even though mercury levels are still high... Michigan DNR now wants to delist."

Citizen, Deer Lake AOC

standards, and other regulatory programs, must recognize and account for the synergistic effects toxins have on the ecosystem and their bioaccumulation and bioconcentration in the food chain.

Citizens should play a leading role in the oversight and development of implementation programs.

A strong citizen component in the implementation of RAPs is essential for ensuring that the goals of the RAP are achieved.

Implementation committees should be established for each Area of Concern to ensure that recommendations in the RAP are carried out.

Membership on the committees must be guided by a dedication to the principles and goals outlined in the RAP and by a commitment to implement these goals. The function of the committee will be fourfold: oversight of existing regulatory programs, oversight of implementation of RAP recommendations, maintenance and development of community support, and marketing, promotion and fundraising for the RAP.

The committee must have a strong public component. Citizens will have a strong interest in ensuring that the goals and programs of the RAP are implemented. That interest is essential to ensuring that implementation occurs.

"The multi-stakeholder model while good and representative for drafting the RAP presents problems when it comes to implementation as many of the stakeholders are agencies. There is a feeling that the makeup of the group overseeing implementation should have a strong public component and the agencies should report to that committee on progress. This means the stakeholder group as it is structured now should change. The government agencies will be in conflict if they are both stakeholders and implementators."

Citizen, Hamilton Harbour AOC

"Well, the inactive sites program is plodding ahead, and so is a study of CSOs, if you consider those 'remedial actions'...Money, knowledge, and law - in that order [are the significant barriers to implementation]. Doing anything about contaminated sediments, CSOs, and inactive waste sites will cost huge amounts of money. Lack of knowledge is also vast -- about sediment, effects, criteria, pollution sources, pollutant fate and transport, population dynamics...DEC [N.Y. State Department of Environmental Conservation] is taking modest but useful steps to increase knowledge. EPA is engaging in political posturing, and will probably have little or no impact."

Citizen, Niagara River AOC

CONCLUSION

When the concept of RAPs was first introduced by the IJC, citizens around the Basin were enthusiastic at the possibility of restoring health to the severely polluted Areas of Concern in the Great Lakes. Throughout the Basin, there is a wide array of diverse citizens' groups who have taken up the challenge of assisting this effort.

The RAP Revival Workshop brought together many of these citizen leaders. The life experiences and professions of participants were widely divergent: school teachers, farmers, boatmen, small business owners, steelworkers, autoworkers, retired people, artists, journalists, attorneys, professors. The diversity of this leadership reflects the depth of concern that all people share for the environment. It also reflects an emerging community-based, environmental movement which will play a key role in the cleanup of the Basin.

The Remedial Action Plan process offers hope that the pollution problems of the Great Lakes—St. Lawrence River Basin can be overcome. The workshop at Stella Niagara reinforced the commitment and resolve of citizen leaders involved in RAPs to work together to ensure that the potential and hopes of these efforts are realized. The process to date has not been fully satisfactory. There is considerable frustration and anger at the failure of government to devote the effort and resources necessary to RAPs to achieve success. This report outlines some of the problems, needs and expectations citizens have of RAPs. Cleanup of the Great Lakes—St. Lawrence River Basin will not be achieved without governments, industry and citizens addressing these issues.

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February 9-11, 1990

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