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International Specialists in the Environment

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**MEMORANDUM**

**TO:** All Subcommittee Members

**FROM:** Susan Bloss *SLB*

**DATE:** 1/10/93

**SUBJECT:** November 20, 1992 Draft Stewardship Indicator Subcommittee Meeting Minutes

Enclosed are the draft minutes from the November 20, 1992 Stewardship Subcommittee meeting. Please note that the next subcommittee meeting is Monday, February 8, 1993, at the Radisson Hotel, Genessee Street, directly across the street from the Buffalo Airport.

Please bring your comments to the next meeting.

## MEETING SUMMARY

### EOWG Stewardship Indicators Technical Subcommittee

Radisson Hotel  
Buffalo, New York  
November 20, 1992

Participants: Charles Zafonte, Joel O'Connor, Paul Bertram, Trefor Reynoldson, Sally Lerner, Lester Milbrath, Samuel Sage, Sue Mihalyi, George Werezak, Barbara Knuth, Lois New, Marna Gadoua, and Reporter: Mary Ann Storr, Ecology & Environment, Inc.

#### Review of Meeting Agenda:

Topics covered at the meeting included a review and refinement of the indicators by EPA, Region II and Subcommittee reconsideration of individual indicators.

#### Discussion of Workshop Delay:

Paul Bertram and Trefor Reynoldson, Co-chairs of EOWG, and Charles Zafonte, Chief, Niagara Frontier Program Office of EPA, Region II, attended the meeting to clarify EOWG and individual agency roles in the development of indicators. Charles Zafonte explained that EPA, Region II had difficulty in understanding the usefulness of some of the stewardship indicators that were to be discussed at a November 1992 Stewardship Workshop. EPA, Region II, in consultation with Subcommittee members, attempted to clarify the indicators and explicitly describe their effect on decision making. The resulting indicator summary was distributed at the meeting (Lake Ontario Stewardship Indicators Under Development -- Nov. 1992).

Trefor Reynoldson questioned the wisdom of one agency interrupting the work of the subcommittee. Other subcommittees of the EOWG have held workshops to define indicators and had not encountered interference from any of the four parties. Trefor expressed concern that such circumstances could set a poor precedent.

Paul Bertram observed that stewardship is very difficult to define and that, while the managers have the utmost respect for the Stewardship Subcommittee, there is concern that time and effort might be spent on soliciting public input for measurements that may not be useable.

Charles Zafonte explained that before signing off on a grant, it is valid for managers to ensure that indicators measure something that managers can affect.

An open discussion ensued during which some Subcommittee members expressed concern that the public have input to Subcommittee work soon.

Paul Bertram attempted to clarify the situation by explaining that it is the responsibility of EOWG to review products of the Stewardship Subcommittee. In the past, each of the scientific subcommittees have held workshops, but they have sought expert input, not public input. In this case it may have seemed that public approval was being sought instead of gathering additional information. Paul Bertram suggested that an Advisory, not "Public," Workshop might help clarify that the Workshop is for advice and information, not approval.

The target date for the Advisory Workshop was set for sometime in April.

#### Review of Indicators:

Joel suggested reviewing indicator development for purposes of clarifying schedules and assessing needed resources. He also announced that Louise Knox' job has been redefined and expanded. Consequently, she will be needing someone in Environment Canada to help her with the first indicator, below.

#### **1) Effectiveness of Interactions Among the Public, Industry, and Governments**

A survey used for this indicator could be modified for use with other proposed indicators. The design and illustrative summary of the survey can be completed by December 1993 (S. Sage).

#### **2) Toxics Inventory (including Corporate Volunteerism)**

Samuel Sage and George Werezak will work together on this indicator. Samuel will concentrate on toxics inventory information and George will address corporate volunteerism. Information on toxics will be derived from the Toxics Release Inventory (TRI). George feels confident that industry will make a commitment to this indicator and will be of help in gathering information on corporate volunteerism. In order to accurately measure stewardship, it is important to know why toxic reduction behaviors are occurring. A decline in toxics might not be an indication of good stewardship; it may merely be the result of recession or company relocation.

George and Samuel will work separately on the two parts of this indicator but will review progress in consultation with one another.

Samuel is hopeful that a draft report could be ready by March of 1993.

#### **3) Toxicant Loss from Manufactured Products**

Joel indicated that this indicator is potentially valuable because, for most toxicants used in manufacturing, most of their mass seems to be lost in the environment through degradation of the manufactured product, not at the point of manufacture. The indicator would estimate this loss through product degradation. However, it is not clear how fully, or how reliably, these losses can be estimated. Joel is corresponding with investigators who claim the ability to estimate such toxicant losses. Joel is not

yet able to specify a schedule for the completion of this indicator, but suggests a two-stage development process: (1) fund a demonstration effort, for about \$10 K, providing (or not) convincing evidence that the indicator is feasible, and (2) seek EOWG support of the complete indicator. The feasibility analysis could be completed by March or April 1993 if support is promptly available.

#### **4) Environmental Volunteerism by Public**

The structure for this indicator would include the number of personnel hours donated, changes in personnel hours donated, and reasons for the increases or decreases in these hours. Consideration of proactive stewardship and reactive stewardship will be included in this indicator.

Population limiting is not to be an indicator, but regional summaries will be prepared to help interpret some indicators.

It was decided that development of Indicators #1, #2, and #4 would be pursued and that #3 would be investigated further.

Paul Bertram noted that stewardship is largely a volunteer effort. Any participants requiring support for development of indicators should submit requests to Trefor Reynoldson and Paul Bertram, who will in turn meet with Griff Sherbin and Charles Zafonte to discuss funding.

#### **Review of Measurement of Stewardship Indicators:**

Barbara Knuth gave a brief overview of the proposal, "Measurement of Stewardship Indicators in the Lake Ontario Ecosystem." She explained the four major components of the survey: 1) motivators, 2) intentions, 3) actions and behavior, and 4) barriers to stewardship. Examples of specific indicators that could be measured by either a percentile or mean score are also provided. Total cost of implementation of the survey is \$170,000.

The general consensus of the Subcommittee was that while this is an excellent proposal, its contributions to specific indicators must be explicit. Barbara was asked to break down the proposal and provide costs for development, definitions of indices, and outline a pilot test. In addition, Joel will send out copies of the proposal to the Subcommittee members not present at today's meeting and he will request that any comments or responses be submitted directly to Barbara by December 20, 1992.

#### **Other Issues:**

The next Subcommittee meeting is scheduled for January 7, 1993. [Note: the next meeting has been postponed to Monday, February 8, 10:00 - 3:00 at the Radisson Hotel, Buffalo]

**1. Effectiveness of Interactions Among the Public, Industry and Governments.**

Measurement: surveys of public groups, industry and governments; people are asked about effectiveness of their dealings with other groups; quantify effectiveness of each group interaction (public w/ industry, industry w/ public, industry w/ govt., etc.).

Effect on Decisionmaking: (barriers to cooperation and information exchange often hamper environmental programs, particularly multi-agency programs such as the LOTMP.) Identify barriers to cooperation and information exchange. Understanding of the barriers should help us (public, government, industry) modify behavior to improve interactions, and deal more effectively with issues. Also, findings might result in recommendations to agencies, to improve interactions.

Anticipated products: quantitative indicators of effectiveness, survey data, and results (bar graphs of effectiveness for public w/ industry, government w/ public, etc.); new report every 1-2 years, tracking improvements relative to "satisfactory" interactions.

Schedule: Dec '93 (assuming Nov '92 support)      Cost: \$2.7 K (ASLF intern to conduct and compile the survey)

**2. Toxics Inventory -- including Corporate Volunteerism.**

Measurement: annual mass releases from industrial sites, and transfers across state lines, of chemicals of concern to LOTMP (persistent chemicals with BAFs > 1000); U.S. data at county level already compiled as Toxics Release Inventory (TRI); initial Canadian data expected in 1-2 years; releases of particular chemicals and chemical classes by county and by L. Ontario watershed; quantities of releases to particular media also distinguished.

The Corporate Volunteerism indicator embraces a subset of the total Toxics Inventory: voluntary, corporate reductions in specific mass loadings to specified media.

Effect on Decisionmaking: would provide independent estimates of toxicant mass loadings from most U.S. industries (and throughout L. Ontario Basin in 1-2 years). Given the uncertainties in toxicant mass balances based upon toxicant concentrations in water, these independent mass loading estimates should make mass balance models more reliable bases for waste management decisions. Also, knowledge of large loadings of particular toxicants would be important in decisions about imposing or encouraging pollution prevention and recycling.

Documented successes and failures of Corporate Volunteerism should highlight opportunities for toxics control by the LOTMP and the prospective Lake Ontario LAMP.

**Toxics Inventory -- including Corporate Volunteerism (continued)**

Anticipated products: Both indicators are to be summarized annually, in a single report; track releases and transfers of individual chemicals, and total chemicals; distinguish receiving media, and receiving watershed and county.

Schedule: Aug '93 (assuming Nov '92 support)      Cost: \$5.4 K (ASLF interns to select and summarize relevant data)

**3. Toxicant Loss from Manufactured Products.**

Measurement: mass of individual and of total toxicants incorporated in manufactured products, and rates of toxicant loss from products to the L. Ontario Basin. This measure permits the only apparent estimate of toxicants lost to the environment from use, disposal and breakdown of manufactured products (often largest fraction of toxicant release, but estimated only qualitatively as non-point sources).

Effect on Decisionmaking: For at least some chemicals, these estimates may improve reliability of existing mass balances (which do not quantify toxicant loss from products). For many chemicals seldom measured in the environment, mass balances can not be estimated. But these estimates may provide the missing components needed for mass balances for these additional chemicals. Also, new knowledge of large loadings of particular toxicants, and the products from which large loadings derive, would be important in decisions to impose or encourage pollution prevention, recycling and modifying consumer behavior (public, corporate and governmental).

Anticipated products: Report every 3-5 years, estimating individual and total toxicant loss to environment from products manufactured within the Basin, and within watersheds.

Schedule and Cost: requires consultation with experts having experience with the estimates required.

#### **4. Environmental Volunteerism by Public.**

Measurement: total number of volunteer hours devoted to environmental activities; Also, hours devoted to particular activities (encouraging "green" consumer behavior, environmental cleanup, information gathering and exchange, lobbying, education, monitoring, advocacy, restoration, and RAP participation).

Effect on Decisionmaking: A major rise or fall in the indicator might well trigger agency concern about causes of the change. Even without such a change, however, understanding the intensity of specific kinds of volunteer activity would help indicate the strengths and weaknesses of the Parties' policies and programs. Better understanding of activities and concerns of local groups will make it easier for the Parties to form partnerships with the public.

Anticipated products: Report, every 3-5 years, summarizing the indicator procedure, survey procedure, survey data, and indicator results (# volunteer hours).

Schedule: Canadian side done  
U.S. side ?

Cost: \$0-5 K (responsible party for U.S.  
data not yet identified)

Also, population density of watersheds within the Basin must be summarized to interpret some of the indicators. (This is not an indicator.)

Cost: \$2.7 K (ASLF intern to select and summarize for convenient interpretation)

#### **Indicators Being Discussed by the Subcommittee**

**Public Response to Government Leadership.**

**Government Response to Lakewide Needs.**

**Degree of Public Access.**

**Public Stewardship, Motivations and Actions.**

file: INDSUM.2