

Sarah

Local 3908
AMERICAN FEDERATION OF
GOVERNMENT EMPLOYEES
(AFL-CIO)
P.O. Box 3908
Ann Arbor, MI 48106

RECEIVED FEB 24 1986

February 18, 1986

Sarah Miller
Canadian Environmental Law Association
243 Queen St. West
(4th Floor)
Toronto, ON M5V 1Z4
CANADA

Dear Ms. Miller:

You may have received letters from me during the past four years telling you of the Reagan Administration's proposed zero-funding for NOAA's Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor, Michigan, the chief multidisciplinary federal laboratory with focus on the Great Lakes. As you probably know, your efforts and the efforts of Congress have succeeded in restoring funding each year for GLERL's research program. We have really appreciated your help and want to bring you up-to-date. This year we have the good news that the Administration has put us back in the budget, but the bad news is that it has proposed a budget for FY 1987 that is 21% below the present appropriation for FY 1986. The proposed cut comes on top of a six-year history of almost level funding that has seen GLERL's research purchasing power decline due to inflation by 27%. If the proposed FY 1987 allocation stands, GLERL's loss of real purchasing power since 1980 will increase to 45% (see enclosed graph)!

The slow erosion of the budget from 1980-1986 at GLERL has resulted in a serious loss in GLERL's research flexibility. During this period GLERL has: (1) had to eliminate cooperative programs with universities, (2) not been able to purchase scientific equipment critical to our advanced research, (3) lost key senior personnel, and (4) been unable to fill personnel gaps in important programs. This insidious erosion of GLERL and other Great Lakes' programs was recently documented in a Hearing before the Task Force on Community and Natural Resources of the Committee on the Budget, U.S. House of Representatives (Serial No. 6-1, October 3, 1985). While recognizing the need to balance the federal budget, all testimonies supported enhancement of the budgets for GLERL and other federal Great Lakes' research programs to levels approximating the purchasing power of 1980. For GLERL, that would require an FY 1987 appropriation of \$5.4 million. An excerpt of this testimony is enclosed.

This year I am asking you to let Congress know your views on the Reagan Administration's neglect of Great Lakes' environmental programs. Because a request to restore the full equivalent FY 1980 buying power for GLERL would seem unreasonable in these times of budget austerity, GLERL has worked hard

to identify the minimum funding necessary to maintain important programs, purchase badly needed equipment, and pay the rent on a desperately needed new and more modern facility (finally approved after 11 years). To accomplish these tasks requires an annual budget of at least \$4.7 million. If the Administration request for FY 1987 is allowed to stand, GLERL will have to cut already limited programs and personnel. Many of the benefits to Great Lakes users outlined in the enclosed documents could never have been carried out if our previous funding had been as low as the Administration now proposes for GLERL.

If you would like more details about GLERL's program and budget, please contact me (313-668-2284) or Mike Quigley (313-668-2024). We are very grateful for your past interest and hope we can once again count on your help and support.

Sincerely,

A handwritten signature in cursive script, reading "Henry A. Vanderploeg".

Henry A. Vanderploeg, Ph.D.
Political Affairs Chairman
Local 3908

Enclosures

KEY PERSONS ON CONGRESSIONAL COMMITTEES

Congressman Neal Smith
Chairman, Subcommittee on Commerce,
Justice, and State, the Judiciary
and Related Agencies
House Appropriations Committee
H-309 Capitol Building
Washington, D.C. 20515

Congressman George M. O'Brien
Ranking Minority Member
Subcommittee on Commerce,
Justice, and State, the Judiciary
and Related Agencies
House Appropriations Committee
H-309 Capitol Building
Washington, D.C. 20515

Congresswoman Barbara A. Mikulski
Chairwoman, Subcommittee on Oceanography
House Merchant Marine and Fisheries
Committee
H2-541 House Office Building, Annex II
Washington, D.C. 20515

Congressman James H. Scheuer
Chairman, Subcommittee on Natural
Resources, Agriculture Research
and Environment
821 House Office Bldg., Annex
Washington, D.C. 20515

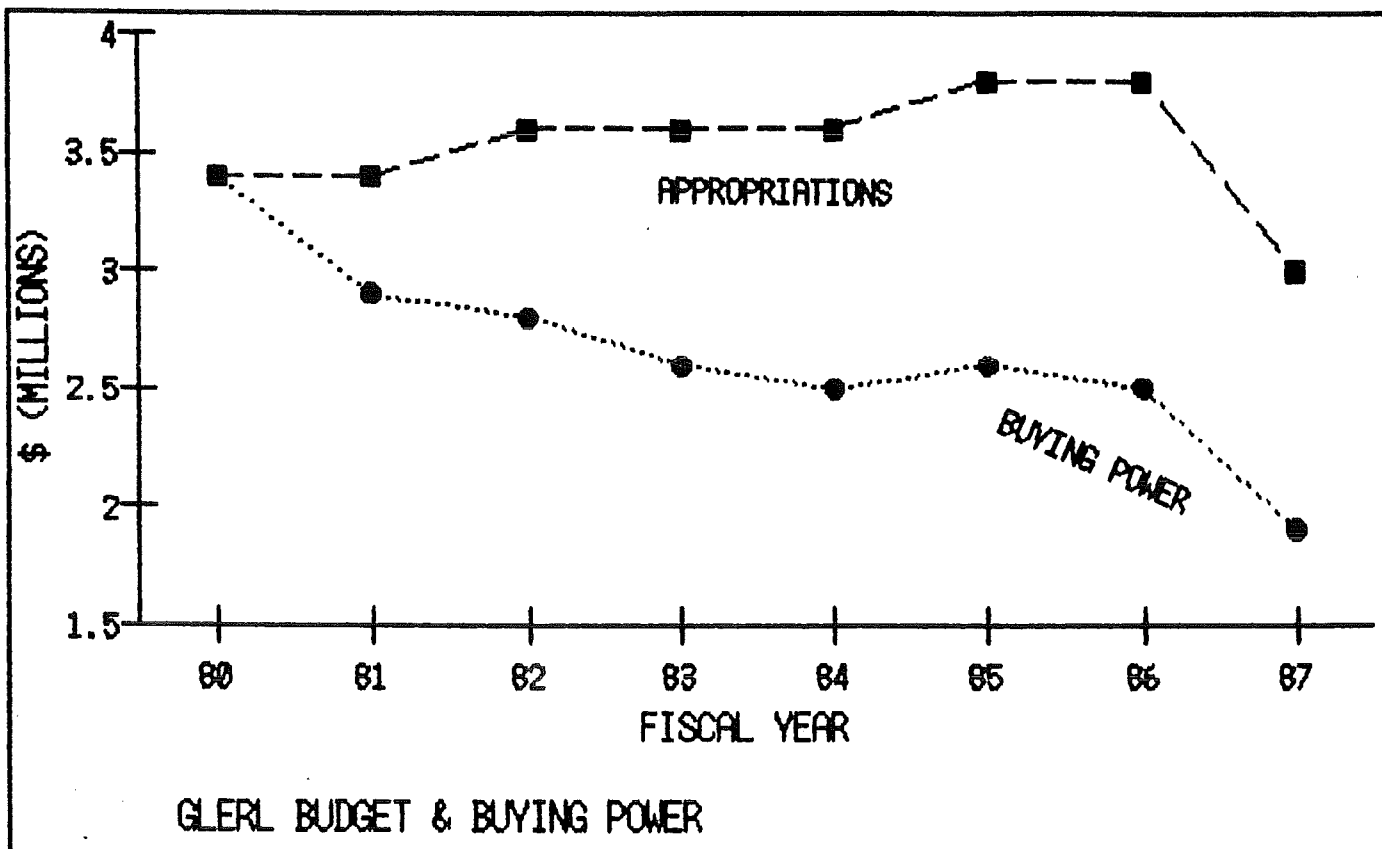
Senator Paul Laxalt
Chairman, Subcommittee on Commerce,
Justice, and State, the Judiciary,
and Related Agencies
Senate Appropriations Committee
S-146A Capitol Building
Washington, D.C. 20510

Senator Ernest F. Hollings
Ranking Minority Member
Subcommittee on Commerce, Justice,
and State, the Judiciary, and
Related Agencies
Senate Appropriations Committee
S-146A Capitol Building
Washington, D.C. 20510

Senator Slade Gorton
Chairman, Subcommittee on Science,
Technology, and Space
Senate Commerce, Science, and
Transportation Committee
SH-427 Hart Senate Office Bldg.
Washington, D.C. 20510

Senator Donald W. Riegle
Ranking Minority Member
Subcommittee on Science
Technology, and Space
Senate Commerce, Science, and
Transportation Committee
SH-427 Hart Senate Office Bldg.
Washington, D.C. 20510

Please also contact Senators and Congresspeople in your state. We would also be happy to receive a copy of any responses you get. Note: GLERL is included in the budget under NOAA/Ocean and Coastal Programs, Ocean Research, Ocean and Great Lakes Prediction Research.



**GREAT LAKES ENVIRONMENTAL RESEARCH LABORATORY
ANN ARBOR, MICHIGAN**

MISSION AND APPROACH

The Great Lakes Environmental Research Laboratory (GLERL) is a federal laboratory within the National Oceanic and Atmospheric Administration (NOAA) under the U.S. Department of Commerce. GLERL's research responsibilities come from federal statutes, NOAA's mission and goals, and the U.S.-Canada Great Lakes Water Quality Agreement of 1978. Its mission is to improve understanding of environmental processes, develop methods for simulating and predicting the behavior of environmental systems, and assist users with the solution of problems associated with resource management, water related activities, and environmental services. GLERL's product is scientific information - more precise data, analyses, assessments, numerical models, and improved service tools. GLERL has been acknowledged as one of NOAA's most outstanding research laboratories.

GLERL pursues a systems research approach to major Great Lakes environmental issues, including water quality (toxic chemicals, nutrient overenrichment), water quantity (diversions, consumptive use, management), and physical hazards to Great Lakes users (waves, flooding, ice). Research at GLERL is done by highly qualified staff who often engage in team efforts with scientists at universities or with other agencies in the U.S. and Canada. Information from this research is used by international, federal and state agencies, governments, industry, universities, and the public.

SOME RECENT ACCOMPLISHMENTS

- GLERL studies revealed that sediment resuspension is a major source of toxic contaminants and phosphorus to the water column. This can limit the response of the lakes to remedial measures.
- The partitioning of certain organic contaminants between the truly dissolved state, suspended particles, and dissolved organic matter was shown to significantly affect the bioavailability of these carcinogens to Great Lakes organisms.
- A model providing improved forecasts of Lake Superior water supplies was developed and transferred to the Army Corps of Engineers for their use in forecasting lake levels.
- The Lake Superior water supply model was modified and provided to the National Weather Service River Forecast Center near Hartford, CT. to improve forecasting of Lake Champlain water levels.
- A trajectory prediction model was produced for the Great Lakes and is used by the Coast Guard for tracking pollutant spills, drifting objects, and to help focus search and rescue operations.
- A wave prediction model was developed for the Great Lakes and is used by the National Weather Service on a regular basis. Such information is vital to the safety of recreational boaters and small fishing vessels using the lakes.
- A GLERL scientist participated in the exploration of Lake Superior with a submersible to investigate the geochemistry, biology, and physical processes occurring there. A large number of Hydra, a small freshwater jellyfish, were found coating rocks as deep as 1300 feet.
- A study was begun of the characteristics and ecological effects of natural precipitation of calcite, known as "whitings", which occur every summer in the Great Lakes. This phenomenon may disappear as acid rain affects the lake environment, since it is pH dependent.
- A GLERL scientist demonstrated that salmon stocking may have resulted in an improvement in water quality in Lake Michigan by indirectly increasing the predation pressure on algae.

For additional information about GLERL, please contact:

GLERL INFORMATION SERVICES, 2300 WASHTENAW AVENUE, ANN ARBOR, MI 48105
(313) 668-2019

BUDGETARY ISSUES AFFECTING THE GREAT LAKES BASIN

HEARING BEFORE THE TASK FORCE ON COMMUNITY AND NATURAL RESOURCES OF THE COMMITTEE ON THE BUDGET HOUSE OF REPRESENTATIVES NINETY-NINTH CONGRESS

FIRST SESSION

OCTOBER 3, 1985

Serial No. 6-1

PREPARED STATEMENT OF MICHAEL A. QUIGLEY

My name is Michael A. Quigley and I am an ecologist in the Ecosystem and Nutrient Dynamics Group at NOAA's Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor, Michigan. Today, however, I will testify as president of the union that represents the scientists and support staff at the laboratory (Local 3908, American Federation of Government Employees).

On behalf of GLERL's staff, I'd like to begin by thanking Congress for its continued support of our laboratory in reversing four attempts by the Reagan administration to zero-fund our facility in each of the proposed fiscal year 1983-fiscal year 1986 budgets. These closure attempts have continued in spite of:

- (1) Recognition of GLERL as one of NOAA's outstanding research laboratories.
- (2) Two reclama requests from the Commerce Department to the Office of Management and the Budget to reinstate GLERL within the Administration's proposed budget (for fiscal year 1985 and fiscal year 1986).
- (3) Repeated diplomatic notes from Canada warning that GLERL's closure would violate Great Lakes research commitments outlined in the United States-Canada 1978 Water Quality Agreement.

Moreover, OMB's steadfast refusal to acknowledge the broad and persistent Congressional support of our lab now forces both the House and the Senate to periodically restore GLERL's funding. It is unfortunate that Congress must annually commit time and resources in renewing a program that is recognized as essential both inside and outside the administration.

GLERL is not the only Great Lakes research program perennially targeted for closure by the Reagan administration. During the past 4 years, OMB has completely zeroed out research funded through NOAA's National Sea Grant program. In addition, EPA's Large Lake Research Station (LLRS), Grosse Ile, Michigan and EPA's Great Lakes National Program Office (GLNPO) in Chicago have been scheduled for partial or total funding elimination. Fortunately, Congress has restored these programs that are vital for the intelligent and cost-effective management of the Great Lakes—a vast resource that constitutes 95 percent of our Nation's surface water.

Although Congress has managed to restore funding for GLERL, LLRS, GLNPO, and Sea Grant, these programs have suffered adverse effects caused by year to year uncertainty about their continued existence. At GLERL, four successive years of proposed zero funding has:

- (1) Resulted in the loss of key personnel who left to accept more secure jobs elsewhere. These include one senior scientist, two mid-level (Group) managers and our publications editor (of 10 years). This attrition is further compounded by the difficulty in hiring replacements because qualified candidates are often reluctant to leave a previous position to face an uncertain future at GLERL.

- (2) Continued to delay GLERL's acquisition of a new permanent rented facility. Last year, Congress appropriated \$350K for consolidating GLERL from its present five locations around Ann Arbor, into one building. GLERL is presently located in temporary facilities that were never designed to be used as laboratories. Consequently space is extremely limited and safety conditions are only marginal. Last November, the Commerce Department authorized a market survey of prospective contractors to build and rent the new facility. Ten companies initially responded, but, following February 1985 news reports of GLERL's proposed closure, only one contractor actually responded to the solicitation. If approval is not granted by mid-October, the entire solicitation process must be reinitiated. It is doubtful that any contractor will respond next year.

As for the EPA's LLRS and Great Lakes Sea Grant programs; they too have suffered from attrition. The Large Lakes Research Station experienced a particularly large departure of staff during early closure attempts. Among those leaving was Wayland Swain, LLRS Director.

Federal Great Lakes research efforts have also been progressively handicapped by erosion of their budget base. Although Congress has insured year to year survival, program funding has often not kept pace with cost of living. For example, in terms of 1980 dollars, the GLERL budget has declined by 17 percent over fiscal year 1982-86 while EPA's LLRS has dropped by 24 percent over this interval. At GLERL, budget erosion has resulted in:

- (1) The loss of seven temporary positions that are usually held by university students (from University of Michigan, University of Detroit and Eastern Michigan University). As technicians, students play an important role at GLERL in the front-line collection and analysis of data. The loss of the seven positions is twofold because it now means that fewer students will be afforded the opportunity for valuable first-hand experience in Great Lakes research.

- (2) Declines in funds for extramural contracts that subsidize productive collaborative work between GLERL and major universities (in Michigan, Ohio, Minnesota, Wisconsin and New York).

- (3) A reduction in buying power needed to maintain state of the art instrumentation. This has particularly limited GLERL's capacity to analyze a wide range of toxic organic compounds in Great Lakes water sediments and biota. This problem is particularly critical in light of a recent Federal interagency task force report that cited limitation in analytical capabilities as the major bottleneck restricting further investigation of the cycling of toxic organics in the Great Lakes. The problem is heightened by the fact that increases in the cost of scientific instrumentation often exceed normal cost of living increases. As a result, buying power is further diminished.

In closing, I'd like to note that in May 1982 the General Accounting Office reported to Congress that: "A more comprehensive approach is needed to clean up the Great Lakes." The report recommended that NOAA establish a Great Lakes research office to coordinate and carry out needed research activity. Now, almost 3½ years later, that office does not yet exist. Moreover, the research efforts it was supposed to coordinate have been weakened by the trauma of repeated closure attempts and by the erosion of their budgets.

Are Federal Great Lakes research programs better off today than they were 4 years ago? They most certainly are not. They are worse off and their health and integrity are declining with the onset of each additional fiscal year. Unless we take decisive action in the immediate future to protect and preserve these programs, we will soon witness an alarming decline in our ability to effectively manage Great Lakes resources. Similar concerns have been expressed in a 1982 annual report of the International Joint Commission's Great Lakes Science Advisory Board:

"If research is not adequate, it will be difficult to identify problems, understand the cause-effect relationships, predict ecosystem responses or behaviour, and ultimately improve the management of the Great Lakes. It is important to detect as early as possible subtle changes in water quality. Once problems have become obvious, solutions and recovery may take decades. If the problem is irreversible, recovery may never occur."

The Great Lakes

R E P O R T E R



VOLUME 2, NUMBER 1 JANUARY/FEBRUARY

1985

THE CENTER FOR THE GREAT LAKES

Research Lab Boosts Economy

*"They are swept by Borean and
dismasting waves . . . as direful
as any that lash the salted shore.
They know what shipwrecks are;
for out of sight of land, however
inland, they have drowned full
many a midnight ship with all its
shrieking crew."*

The words were Herman Melville's, and the waves that so commanded his respect were not in Captain Ahab's South Pacific but in our own Great Lakes.

Although weather on the lakes is still taken seriously by those whose livelihood depends on fishing or lakeborne commerce, that weather and the conditions which produce it are much more predictable today than they were in Herman Melville's time.

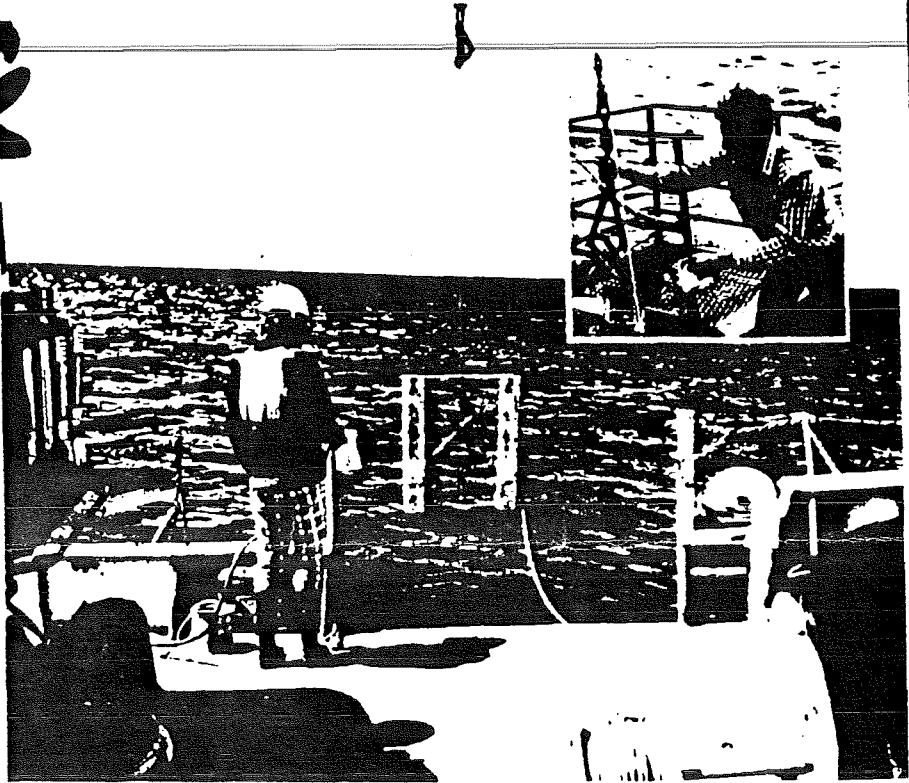
One reason is a long history of government-sponsored research aimed at producing more comprehensive knowledge of how the lakes work — biologically, chemically and hydrologically — as an interconnected system. An important center for that research in recent years has been the Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor, Michigan.

The new U.S. federal budget, just announced this month, proposes for the fourth year in a row the elimination of all funding for GLERL; but observers predict that Congress, spurred by a broad variety of supporters, will restore that funding for 1985 as it has in each of the previous years.

The reason, according to George Ryan of the Lake Carriers' Association, is that the lab's work is "too valuable to too many people" to allow its demise. Although its name indicates a focus on environmental matters, he noted, the word is construed more broadly than many people realize. It is as essential to the region's economic functioning as to its natural resource management.

Indeed, according to GLERL director Gene Aubert, a third to a half of his lab's research at any given time is devoted to the collection of data on weather and climate, lake currents and other hydrological data which is of direct use to shippers.

The remainder of its work — on lake chemistry and biology — also has both short- and long-term economic as well as environmental ramifications; and, in many cases, a single piece of research may, in fact, have a number of different uses. As Aubert points out: "From an



In the lab or on the lakes, scientists from GLERL aim at a better understanding of how the lakes work (and work for us) as a single system of connected parts.

ecosystem point of view, lake flows transport toxic contaminants; from an economic point of view, they transport ships. The hydrodynamics are the same whether it is a water pollution problem or a shipping issue."

... essential to the region's economic functioning.

George Ryan

The founders of GLERL foresaw this overlap, it seems, when they established the lab with a geographic rather than a narrow subject focus following a series of government agency reorganizations in 1970 and 1974. It currently exists as part of the National Oceanic and Atmospheric Administration under a Department of Commerce umbrella. Its mission consists of "process-oriented research to improve understanding of the natural lake system and the impact of man-induced stress; and problem-oriented research to develop improved engineering prediction models."

For example:

- GLERL assists the National Weather Service with routine data collection on weather, wind and wave patterns.

- It has developed a computerized "wave prediction model" for accurate forecasting of wave direction and amplitude under various conditions for each of the Great Lakes.

- Its scientists have compiled 75 years of hydrologic data to provide a monthly almanac of water levels based on "inflow, outflow, evaporation, runoff and precipitation."

- A hydrologic response model, developed as an outgrowth of this work, predicts the effects of increased water withdrawals (including diversion) on lake levels and flows in the connecting channels — and therefore on various lake users ranging from shippers to sport fishing enthusiasts.

- A Great Lakes Ice Atlas produced by the lab in 1983 is particularly useful to shippers. Using a 20-year data base, it provides climatic estimates at bi-monthly intervals of the thickness, duration and variation of winter ice cover on the lakes and their connecting channels.

- In addition, GLERL developed a

(continued on page 6)

Research Lab

(continued from page 5)

model that predicts where floating objects or spills will go, of value to U.S. Coast Guard operations for both search and rescue and for oil and hazardous waste spills in the Great Lakes.

• A number of other government agencies, each with their own budget restraints, also depend on GLERL research. Peter Wise of the U.S. Environmental Protection Agency's Great Lakes National Program Office said GLERL modeling work is the basis on which his agency sets industrial waste load allocations for the Great Lakes.

According to Michigan Congressman Bob Carr, one of numerous GLERL supporters at the federal legislative level, the lab's research on water quality clearly has economic value, particularly in policy planning which affects the region's sport fishing, tourism and recreation industries, and its "quality of life," which contributes to the ability of states and provinces to attract new business.

 n a smaller scale, some specific firms also report positive side effects of GLERL research. For instance, a spokesman for the Gelman Instrument Co., an Ann Arbor-based firm which manufactures medical equipment, said that his company has successfully incorporated into its product line a water chemistry filter system first developed at GLERL to collect and quantify nutrient loads in the lakes.

And Michigan Governor James Blanchard said his office contacted the lab recently on behalf of a pulp processing firm for comparative data on near-shore current patterns that would affect the costs of designing a workable effluent control system at various Lake Michigan sites.

To those who have argued for GLERL's elimination on grounds it has regional rather than national importance, Aubert cites the universal applicability of its research to large lake and coastal marine environments.

"It has been argued that the Great Lakes are primarily a regional resource and therefore that the states should pay for the research," he said. "Those who offer such arguments fail to recognize that the lakes are international and are interdependent with the U.S. economy. We are no more regional than the Atlantic Ocean."

George Ryan of the Lake Carriers had another point. "The most important question to answer in determining GLERL's worth," he said, "may not be what the lab is doing at any given moment, but what the rest of us would do without it." ◇