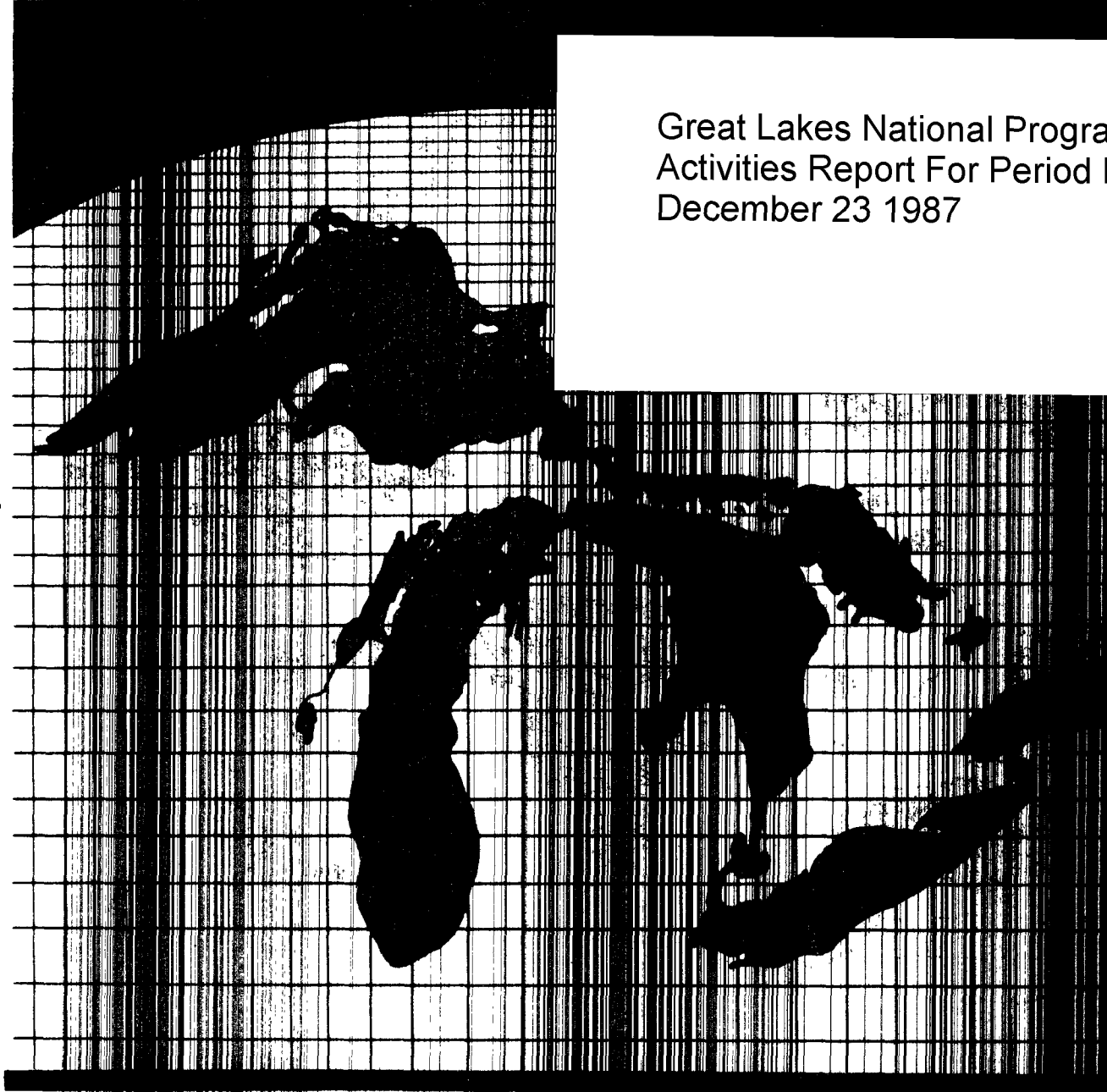


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Great Lakes National Program Office

Great Lakes National Program Office
Activities Report For Period Ending
December 23 1987



ACTIVITIES REPORT FOR PERIOD ENDING
DECEMBER 23, 1987

DIRECTOR'S OFFICE

CAROL FINCH, ACTING DIRECTOR

Environmental Services Directors Meet To Develop Strategies

On December 3rd, 1987 in Washington, D.C., the Environmental Services Directors met to discuss ESAT management strategies. Carol Finch was present as one of those who helped to develop the series of ESD Vision Strategies. These included strategies for risk assessment, quality assurance, enhanced laboratory and field capability, data management, priority setting, and the example of the Region III Field Productivity Improvement Project. Of particular interest was developing a method for establishing ESD scientific and in-house consultant capability and to make them available to the Regions.

Contact Person: Carol Finch (312) 353-3544

Five Year Strategy In Review And Update

Ginger Webster and Jan Edwards, independent consultants, have been retained to take the lead in reviewing all of GLNPO's commitments resulting from the Water Quality Act of 1987 and the new Great Lakes Water Quality Agreement. GLNPO managers identified the major issues and management themes that are to be addressed by the review and subsequent strategy revision. The contents of the management review report and the Five Year Strategy were established in a meeting on November 9-12, 1987. Further developments from the second work session on December 16-17 are in preparation.

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Great Lakes Water Quality Agreement Signed

Major amendments to the U.S./Canada Great Lakes Water Quality Agreement were signed on November 12th. EPA Administrator Thomas signed the Agreement on behalf of the United States, while the Minister of the Environment McMillan signed for Canada. Formal diplomatic aspects of the review and negotiation process were handled by the Department of State, while EPA had the lead in technical matters.

Signing of the Agreement capped ten months of intense effort by a special EPA team set up by Peter Wise when he was Director of GLNPO. The team consisted of Kent Fuller of GLNPO on a full time basis, Tom Daggett and Jim Thunder of Region V's Regional Council on a part time basis, and Peter McAvoy of the University of Wisconsin as a consultant. As the new Director of GLNPO, Carol Finch guided the final stages, especially coordination with headquarters. Headquarters participants included Deputy Administrator Barnes, his staff and Conrad Kleveno of the Office of International Activities.

Key Aspects of the 1987 Great Lakes Water Quality Agreement Amendments include:

1. Technical aspects of the Agreement have been brought up to date, particularly with respect to: contaminated sediments, airborne toxic pollutants, contaminated groundwater and non-point sources of pollution.

This will better support quantification of all sources of toxic substances entering the Lakes and determination of the reductions necessary to meet water quality objectives.

2. Accountability and management aspects of the Agreement clarify responsibilities and set dates for completion of various milestones and reports. Key features are the process for reviewing water quality objectives, preparation of remedial action plans for geographic areas of concern, and Lake management plans for critical pollutants.

The net effect of the amendments is to call for a clear definition of problems and a clearly defined series of actions that will result in solving them.

3. An essential part of the 1987 amendments to the Agreement is the consensus that supports them. At the outset, both State Government and public interest group representatives voiced strong misgivings about the review process and the intent of the Federal Government.

By the end of the process, both State and public interest group representatives voiced strong approval of their involvement and the resulting amendments. The consensus on substance includes the Canadian participants and bodes well for the future of the Agreement.

Contact Person: Kent Fuller (312) 353-3503

Water Division Briefing on the Great Lakes Water Quality Agreement

On December 7th, Kent Fuller provided a briefing on the 1987 amendments to the Agreement to the Region V Water Division staff. Acting Division Director Dale Bryson began the meeting with a landmark statement of support for implementation of the Agreement, emphasizing the importance of immediately taking action to reduce the amount of toxics entering the Lakes and fully implementing the Agreement as a priority commitment of the Administrator. Dale pointed out the challenging concepts and commitments contained in the amendments, and emphasized the importance of shifting from pollutant concentration in effluents and immediate receiving waters to thinking in terms of total lake loadings.

Contact Person: Kent Fuller 353-3503

Non-Point Source Committee of the IJC Water Quality Board

The Non-Point Source Committee, with Kent Fuller as U.S. Co-Chair, met on November 8th to review progress and renew commitments in fulfilling its work plan. A major agenda item was the review of proposals for putting pesticide and other data into a digitized mapping system to support analysis and display information. It was concluded that the ARC-INFO system best met the needs and a decision was made to accept a proposal from Agriculture Canada to do the work. The system is expected to be compatible with the U.S.G.S. ARC-INFO system and will provide a powerful tool.

Contact Person: Kent Fuller 353-3503

International Joint Commission Biennial Great Lakes Meetings

The International Joint Commission biennial meetings were held on November 16-18, 1987 in the Sea Gate Center in Toledo, Ohio overlooking the mouth of the Maumee River. The purpose of the meetings was to officially receive and discuss the biennial reports of the Water Quality and Science Advisory Boards of the IJC. The reports focussed on progress in meeting the terms of the 1978 Great Lakes Water Quality Agreement, progress in completing remedial action plans for areas of concern and the present state of the Lakes. Presentation of the Water Quality Board report was made by the Co-chairs: Regional Administrator Adamkus and Director General Dowdeswell.

Contact Person: Kent Fuller 353-3503

UGLCC Management Committee Meeting

The Management Committee of the Upper Great Lakes Connecting Channels Study, met November 10th at the Hilton O'Hare to review scheduling and the summary of input/tasks of the 170 activities of the UGLCC Work Plan. Because of the individual staff conflicts with RAP assignments, the question of full commitment by all involved agencies to the revised time schedule of March, 1988 for completion of the Final Report was raised. Loss of key agency personnel exacerbates the problem, as in the case of U.S./Canadian losses on the Regulatory Task Force. The key Long Term Monitoring Work Group still needs to complete organization, and P. Bertram of GLNPO was identified as a potential U.S. chairperson. Spills were identified as being potentially a major source of contaminants in the UGLCC study area. The Regulatory Task Force was asked to look at existing spill data and controls.

Valdas Adamkus had requested by letter a Canadian briefing on pollution on the Algoma Steel site and related activities. In response, Ontario MOE staff spoke briefly of the Algoma Steel Company's and Ontario MOE's findings at the site. OMOE has committed to detailed study at this site and will be issuing a contract for investigation of the contaminated groundwater discharge, surface water runoff, seepage, and slag characteristics. Another situation involved the discharge of dinitrotoluene from the waste lagoon of C-I-L, Inc. in Sarnia, Ontario. This was the subject of a formal complaint from the City of Detroit's Water and Sewerage Department because of potential effects on the city's drinking water. Commissioner Ridgeway said he believes that the 1986 Safe Drinking Water Act will be the controlling law over CWA pollution requirements in the next few years due to its extensive monitoring and public notice requirements. The Canadians stressed that there was no longer any discharge from the C-I-L site. C. Finch, co-chair of the Management Committee, stressed the need for ongoing dialogue on DNT and for addressing the management issues under the Clean Water Act and within the UGLCC framework.

Contact Person: Vacys Saulys 353-3544

Programs Committee of the Water Quality Board

The Programs Committee for the WQB met December 9th, with Carol Finch as U.S. Co-Chair. The main agenda items were review of remedial action plans and changes needed in response to the recent amendments to the Great Lakes Water Quality Agreement. Revisions of the protocol for review of the RAPs were worked out to make it consistent with the new amendments.

A great deal of discussion took place concerning the changes in the Agreement and their implications. A basic factor is the commitment by the Parties to convene regularly to review progress. This should relieve the Water Quality Board and the Windsor staff of the IJC from reporting pressures that now surround preparation of Board reports. This should result in more of a focus on analysis and comment by the IJC and the WQB and its committees. It was concluded that the WQB strategy should be updated to reflect the Agreement changes and that the committee structure should be re-evaluated.

Contact Person: Kent Fuller 353-3503

REMEDIAL PROGRAMS STAFF

VACYS J. SAULYS, CHIEF

Upper Great Lakes Connecting Channels Progress

On Dec. 8th, the Activity Integration Committee met in Windsor, Ontario to coordinate the ongoing third phase of the UGLCC study. Individual researchers and three media-specific workgroups (of 7) have almost completed their jobs and the geographic area synthesis teams are in place for a Jan. 25-26, 1988 meeting to achieve the third phase of the writing schedule. Target date for completion of the Final Report is midyear of FY '88. Significant numbers of U.S. and Canadian personnel, from 28 governmental agencies and universities are involved in this three-year, 170-project Study.

The Final Report requires the boiling down of nearly 170 activity data reports into 28 media-specific evaluation reports. They will be further reduced into four geographical area reports which form the core of both the Final Report and the Remedial Action Plans that are under way on a parallel track.

Contact Person: Vacys Saulys 353-3544

UGLCC Sediment Work Group Meets

The Sediment Work Group of the Upper Great Lakes Connecting Channels Study met in Windsor, Canada on November 23, 1987 to review progress and determine next steps to complete their portions of the UGLCC study. The Sediment Work Group is the only Work Group that has delivered all of its geographic area media (so called Level II) reports for all of the connecting channels. As a result of a request by the Data Quality Work Group, the Sediment Work Group authors will be including a Quality Assurance chapter in their Level II reports.

Contact Person: Anthony Kizlauskas, 353-3576

Hyde Park Superfund Site Lake Ontario Study Meeting

Representatives of U.S. EPA Region II Superfund, Duluth Environmental Research Laboratory (ERL) - Duluth, Large Lakes Research Station (LLRS) - Grosse Ile, and Great Lakes National Program Office (GLNPO); the New York State Department of Environmental Conservation (NYSDEC) and Department of Health (NYSDOH); Occidental Chemical Company (OCC); and EPA contractors Gradient Corporation, and Ecology and Environment, Inc. met in Albany, New York on December 2, 1987 to discuss progress on the Hyde Park settlement-specified studies of 2,3,7,8-TCDD dioxin fish and sediment contamination in Lake Ontario.

The Duluth ERL is conducting laboratory studies of uptake of 2,3,7,8-TCDD by fish from sediments, with and without a contaminated food source. The uptake part of the studies is now complete. The depuration part of the studies will continue for up to a year longer, until the fish lose half of the dioxin that they accumulated in the uptake studies.

The NYSDOH refereed a three-laboratory methods validation study between the NYSDOH laboratory, the Duluth ERL, and the OCC. Results for both fish and sediments show acceptable precision and accuracy by all three laboratories and detection limit goals of 1 ppt were achieved. The next step will be for the NYSDOH laboratory to release the sediment and fish samples to OCC for analyses. OCC is analyzing the samples as their in-kind contribution to the studies.

The Lake Ontario fish collections this past summer by NYSDEC were successful except for insufficient numbers of smallmouth bass being collected at two of the three sites where collections were planned.

The Lake Ontario bottom sediments survey conducted this past summer by EPA GLNPO, ERL Duluth, Ecology and Environment, Inc., and General Offshore Corporation using the GLNPO Research Vessel Roger Simons was successful except for a core sample location being missed due to confusion caused by a deviation from the cruise plan.

James Martin of LLRS-Grosse Ile introduced the State and OCC representatives to the WASP4 mathematical model which the EPA was proposing to use to model the loadings to sediments resulting from discharges of 2,3,7,8-TCDD from the Hyde Park Landfill. The meeting participants ~~agreed~~ that WASP4 was the most appropriate model to use.

On December 3, 1987, Anthony Kizlauskas met with Dr. Philip Cook from ERL Duluth to discuss how to accomplish analysis of the sediment core samples that were collected on the Lake Ontario cruise for other contaminants in addition to 2,3,7,8-TCDD in order to provide necessary calibration and validation data for the Lake Ontario mathematical model, among other purposes.

Contact Person: Anthony Kizlauskas, 353-3576

Second Remedial Action Plan Coordinators Forum

The Forum was held in Toledo, Ohio on November 19 and 20, 1987. Anthony Kizlauskas gave a presentation on "Guidance on the Assessment of Contaminated Bottom Sediment Problems" as part of the panel discussion given by the IJC Sediment Subcommittee at the Second RAP Coordinators Forum. Mr. Kizlauskas is the Chairman of the Assessment Work Group of the Sediment Subcommittee. Other members of the Sediment Subcommittee also participated in the presentations. The Chairman, Mr. Deo Persaud, provided an introduction to the Sediment Subcommittee and the guidance it was to present at the RAP Forum. Mr. Ian Orchard, Chairman of the Remedial Options Work Group, provided guidance on the selection of remedial options for contaminated sediments once the assessment process identifies the need for action. Dr. Alena Mudroch, a member of the Remedial Options Work Group, gave a case study of how the Dutch are addressing the contaminated sediments problem. The presentations were received very well and touched off a lively question and answer session.

The Subcommittee's presentations were based upon a draft report that the Subcommittee tabled at the RAP Forum, entitled "Guidance on Assessment and Remediation of Contaminated Sediment Problems in the Great Lakes."

Contact Person: Anthony Kizlauskas, 353-3576

IJC Sediment Subcommittee Meets

The IJC Sediment Subcommittee met in Toledo, Ohio on November 20, 1987 to discuss future activities on finalizing the draft "Guidance on Assessment and Remediation of Contaminated Sediment Problems in the Great Lakes" and to plan other activities for the coming year. Suggested changes to the draft guidance document included furnishing cost estimates for all recommended assessment methods and remedial options, and additional guidance on how to use the assessment data to delineate problem areas within the Area of Concern. The Subcommittee then discussed the need for workshops in the coming year, including a Workshop on Sediment Assessment Criteria (jointly sponsored with the IJC Aquatic Ecosystems Objectives Committee) in the Fall of 1988, a Technology Transfer Workshop on Remedial Options in the Fall of 1988, and a Technical Workshop on Testing for Mutagenicity in Bottom Sediments in the Summer of 1988.

Contact Person: Anthony Kizlauskas, 353-3576

ORD-LLRS In-Place Pollutants Modelling Meeting

Researchers participating in the In-Place Pollutants Study being coordinated by the Office of Research and Development Large Lakes Research Station met at LLRS in Grosse Ile, Michigan on November 24, 1987 to review progress and determine next steps for the modelling aspects of the study. Participating scientists included: Dr. Dominic DiToro of Manhattan College (overall fate and effects and toxicity modelling), Dr. Joseph DePinto of Clarkson University (adsorption/desorption behavior of contaminants from sediments), Dr. Wilbur Lick of the University of California at Santa Barbara (sediment deposition, resuspension, and transport), and Dr. Keith Bedford of Ohio State University (probabilities of sediment resuspension, entrainment of bottom sediments). The scientists presented progress reports on their separate activities. Then discussions were held on what information each scientist needed from the others in order to complete their tasks in a coordinated manner. The intent is to provide a final report including the results of all data and modelling activities on the In-Place Pollutants studies in the Trenton Channel of the Detroit River by September, 1988.

Contact Person: Anthony Kizlauskas, 353-3576

ENVIRONMENTAL PLANNING STAFF

ROBERT TOLPA, ACTING CHIEF

NPS Conference Meets in Milwaukee

A conference entitled "Political, Institutional and Fiscal Alternatives to Accelerate Nonpoint Pollution Programs" was held in Milwaukee, WI on Dec. 7-9, 1987. The conference was co-sponsored by the Great Lakes National Program Office and Marquette University's Water Resources Center and the National Nonpoint Source Institute. The three-day meeting provided papers and discussions of political, institutional, organizational, social and fiscal problems associated with establishment and implementation of nonpoint pollution abatement programs. Ralph Christensen participated in a panel of public officials and made a presentation for Valdas V. Adamkus, Region V administrator. Proceedings are expected to be available shortly.

Contact Person: Ralph G. Christensen 353-3545

Upper Great Lakes Connecting Channels NPS Workgroup

Ralph Christensen participated in the final review of the Agricultural NPS level 2 report of the UGLCC in Windsor, Ontario Dec. 9-10, 1987. The report will be ready to present to the synthesis committee by Dec. 23rd, 1987. Tom Davenport, NPS Coordinator or Region V's Water Division has provided excellent support in preparing the U.S. portion of the Report.

Contact Person: Ralph G. Christensen 353-3545

Ralph Christensen Receives Bronze Medal Award

GLNPO is pleased that Ralph G. Christensen received a Bronze Medal Award at Region V's annual honor award ceremony, for successful management of Great Lakes, Section 108, demonstration projects. This series of demonstration projects led to the development and voluntary implementation of low cost measures to reduce phosphorus loadings to the lakes from nonpoint sources. Reduced loadings are leading to reduced algal growth, a shift away from nuisance species, and reduction of hypolimnetic anoxic areas. Future load reductions will come, primarily as advances in conservation tillage and other farm practices take hold. The projects provided a valuable basis for the new EPA nonpoint source program authorized by the Water Quality Act of 1987.

Contact Person: Kent Fuller 353-3503

SURVEILLANCE AND RESEARCH STAFF

WAYNE WILLFORD, CHIEF

Lake Ontario Toxics Committee Meets

W. Willford attended a meeting of the Lake Ontario Toxics Committee on Dec. 10-11, 1987 in Toronto, at which the members reviewed comments received on the draft Lake Ontario Toxics Management Plan. In response to the comments, the Committee made major revisions in the plan. The revised plan is now premised upon whether or not ambient data exists for a toxic of concern and, if ambient data exists, whether the levels present exceed existing standards, or most sensitive use criteria. In each situation, a specific action is called for by the involved jurisdictions. If ambient data is not adequate, actions needed to obtain the data will be specified.

Contact Person: Wayne Willford 353-1369

Meeting of Green Bay Technical Coordinating Committee

The Green Bay Technical Coordinating Committee met in Madison, WI on Nov. 19th, 1987 to review and modify the draft Green Bay Study Plan. Attendees included Dave DeVault of GLNPO, John Sullivan, Anders Andren, Bill Sonzogni and Dale Patterson of WDNR. Bill Richardson, Russ Kreis, and James Martin of EPA's LLRS participated via conference call.

Several modifications were made to the Plan. These include: a) If calculations of maximum possible loads support it, all tributary load monitoring, other than the Fox and Menominee rivers, will be reduced to monthly. The Fox River monitoring will be increased from the ~~current~~ 40 samples/year to approximately 52. These will be divided: 26 @ 2 week intervals; approximately 26 event related. Sampling will continue under the ice on the Fox River. b) Additional work on sediment resuspension will be planned for the middle and lower Bay. The Committee felt that the bay's exchange with Lake Michigan could be estimated by sampling stations in the major passages during cruises, and from current existing data. Funds from this effort would be redirected toward suspended sediments.

James Martin of LLRS will forward the Plan to successful modeling bidders prior to final modification.

Contact Person: Dave DeVault 353-1375

External Review Committee Meets on Institute of Water Research

On Oct. 20th David Rockwell represented the Great Lakes National Program office as a member of the 1987 External Review Committee for the Institute of Water Research (IWR)-Michigan State University. The review committee is comprised of 27 persons representing state, federal agencies and other universities.

IWR grants are funded currently from two sources, the U.S. Geological Survey and the Kellogg Foundation. IWR highlighted its research capabilities in groundwater monitoring and its educational outreach. A geographical information system linking remote sensing data of land use, and nitrate concentrations from well measurements was reported in the context of county development planning. The Kellogg Foundation has selected IWR to develop state wide education programs to inform users of groundwater about groundwater protection and health hazards.

Several excellent publications were presented and copies obtained for GLNPO. Ms. L.G. Wolfson presented a 416-page text on "Rural Groundwater Contamination." Ms. M. Wolfram presented a color pamphlet on "Michigan Water Resources."

IWR was receptive of the expansion of their research interest in investigations of groundwater contaminant loads to the Great Lakes.

Contact Person: David Rockwell 353-1373

Winter Great Lakes Surveillance

The Great Lakes National Program Office's strategy for tracking long term changes in phosphorus concentration levels in the Great Lakes includes the taking of water samples during isothermal periods of the limnionic season. During fall overturn, which usually occurs between November 15th and January, or during early spring, between March and April, GLNPO has used the Roger R. Simons. In between February and March, samples can be taken using a Huey helicopter when ice extensively covers the lakes. The uncertainty of obtaining samples when the lakes are isothermal in the fall, and the lower operational cost of the helicopter, has led GLNPO to select the winter helicopter operations in place of the fall overturn ship operations.

Two winter lake surveys have been planned for this year to increase the opportunity of obtaining samples from lakes experiencing ice cover and to reduce the cost per station visit. Region II's helicopter, which is based in New Jersey, will be used for the surveys. A second sampling run will be included on the return trip with only a 25% increase in flight time (9-10 hours) over a direct return to New Jersey.

Contact Person: David C. Rockwell 353-1373

Limnology Program Surveys

The following is a tentative schedule for GLNPO's 1988 field operations. Limnology surveys will include sampling four of the Great Lakes. Mass balance surveys are also planned for Green Bay. The spring survey is scheduled for after ice-out in March/April. EPA personnel with biology or chemistry backgrounds who are interested in participating in the program are invited to consider the schedule. Written requests approved by your supervisor, indicating the time interval in which you can serve, may lead to a meaningful short term detail. Training can be provided in March and July for required chemical analysis and filtration tasks.

Surveys	Area	Tentative Time	Expected Duration (days)
Spring Run 1	M-H-E-O	After March 20	10-12
Spring Run 2	O-E-H-S-M	After March 20	14-15
Survey 1	Green Bay	April 20	5
Survey 2	Green Bay	June 7	5
Survey 3	Green Bay	July 18	5
Summer Run 1	M-H-E-O	August 1-11	10-11
Summer Run 2	O-E-H-S-M	August 12-26	14-15
Survey 4	Green Bay	August 27	5
Survey 5	Green Bay	October 7	5

Contact Person: David C. Rockwell 353-1373