ILLINOIS STATE WATER PLAN

STATUS OF IMPLEMENTATION

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TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
CRITICAL ISSUES	
Erosion and Sediment Control	2
Protection of Underground Water	4
Flood Damage Mitigation	5
Water Conservation	7
Competition for Water	8
Aquatic and Riparian Habitat	9
Water-Based Recreation	11
Atmospheric Changes and Management	12
Drought and Emergency Interruption of Supplies	13
Illinois Water Use Law	14
CROSS-CUTTING TOPICS	
Integrated Water Management	15
Conflict Resolution	16
Public Participation	17
OPERATING ISSUES	
Stream and Lake Use Management	18
Stream Data Measurements	18
Stream Indexing	19
Natural Resource Information System	20
Water Resource Permit Coordination	21
Water Resources Research and Education	21
Reservoir and Lake Operations	22
APPENDIX	24

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Introduction

In the spring of 1980 Governor Thompson appointed a Task Force to develop a Water Plan. The result was a report entitled "Illinois State Water Plan" and dated January 1984. A state-wide public meeting in Springfield on May 1, 1984, discussed the Plan in detail, which resulted in widespread and general endorsement.

During the period of Plan development the Task Force published annual progress reports, a number of special reports, a newsletter, and prepared a sound-slide show for group presentations. Starting in 1984 and annually since it also published reports on "Estimated Cost of Implementation."

On May 6, 1985 the Task Force reported on its activities subsequent to the Water Plan publication in a letter to the Governor. This year it seemed appropriate to prepare the present report which is a more detailed assessment of the progress and status of programs and projects which implement recommended actions on the 20 issues and 92 specific recommendations contained in the Water Plan. Although concise, the report is free-standing and hopefully can be read without reference to earlier publications.

The Task Force met quarterly during the past year at which time joint activities were coordinated and information of mutual interest was exchanged.

Organization of Report

The present report is in the order of the Water Plan which was concerned with 10 critical issues which are arranged according to importance. This is followed by consideration of three cross-cutting topics which had received inadequate attention and seven operating issues in which improvements can be made in the effectiveness of Illinois water resources management. In the present report each of these 20 subjects contains a statement of problem and summary along with a section which summarizes the status of implementation of each numbered recommendation.

Summary of Results

In most areas of the State Water Plan substantial progress has been made toward implementation of the recommendations. For a few issues such as Drought and Emergency Interruption of Supplies it can be said that actions are essentially in place. In others, such as Erosion and Sediment Control the response programs are in place, but we presently lack measures of their effectiveness. For other areas such as Public Participation, interest seems to be limited to concern with Protection of Underground Water. More detail is available in the sections which follow.

State funding has generally increased since Fiscal year 1984, and the Build Illinois Program has been an important factor in such issues as Flood Damage Mitigation and Aquatic and Riparian Habitat. Threatened reductions in federal funding would impact progress in implementing recommendations for several issues.

CRITICAL ISSUES

EROSION AND SEDIMENT CONTROL

Lead Agency: Department of Agriculture/Division of Natural Resources

Problem and Summary

This issue has the highest priority in the Illinois State Water Plan because excessive soil erosion is threatening the productive capacity of Illinois farmland and is degrading water quality in streams, reducing storage in lakes, and adversely affecting fish and wildlife habitat.

Despite the technical difficulties and the complexity of coordinating the efforts of a large number of individuals and agencies, remarkable progress has been made during the past year. This is summarized by reporting the response to each of the following four broad recommendations in the Water Plan.

Implementation of Recommendations

1a. The recommendation to continue soil and water conservation program coordination has been implemented in a number of ways. The Soil and Water Erosion and Water Quality Advisory Committee has met regularly and it's subcommittee on State Watershed Priority has aided the Soil Conservation Service (SCS) in establishing priorities for watershed activities and has prioritized Watershed Land Treatment Projects to be financed with "Build Illinois" funds. A second subcommittee on Education is functioning and it continually and positively influences education.

1b. As recommended, a state soil erosion and water quality long-range plan has been prepared and is scheduled for completion in the year 2000. State and federal agencies are encouraged to develop work plans consistent with the plan. Additionally, a forum has been provided to discuss work plans at various meetings.

2a. & b. It was recommended that all Soil and Water Conservation Districts be encouraged to meet established soil erosion goals. This objective will be materially aided by completing a modern soil survey by 1991 which project is on schedule. The Legislature has provided funds for one Resource

Conservationist in each of the 98 soil and water conservation districts.

2c. To assure that financial and technical resources are targeted into areas with the greatest needs, the SCS has evaluated needs and determined a logical priority of addressing hydrologic units.

2d. To provide state cost-share assistance for the installation of conservation practices on land for which a valid complaint has been filed the Legislature initially provided $50,000 and increased this to $100,000 for the 1986 fiscal year.

2e. In response to the recommendation to convert 900,000 acres of land currently in row crops to less intensive land use, the SCS has completed an inventory to specifically identify all such areas.

2f. The short-range educational objective to inform landholders and operators of the benefits and importance of reducing erosion is an active and ongoing program. The intermediate range objective to target high schools and colleges has been started and is in need of considerably increased effort. On the other hand, educational programs for grade schools and junior high students are well developed and have attracted considerable teacher and student interest, although greater effort is required in large metropolitan areas.

2g. & h. The recommendation to develop new and refined incentives to encourage the adoption of soil conserving practices is continuing, and continued research and rewards are suggested as means to increase results.

2i. An interagency program to use and apply conservation research is in place.

3a, b, & c. The recommendation to evaluate implementation of the water quality management plan can be said to be essentially complete so far as programs and staffing are concerned. At this point it is not known whether any studies have documented associated improvements in water quality. Such documentation will surely require the continuation of adequate programs for the measurement of stream flow, water quality, and sedimentation to assess progress.

Need to quantify:
• EPA (W.Q.)
• ENR (Lake Sed. Surv.)

• Really starting to see a need for SEDIMENT MONITORING PROGRAM.
• Lake Sedimentation Survey

4. The final recommendation to coordinate existing watershed programs through the application of resources to remedial programs has effectively joined together the legislative branch with the agencies of the state and federal agencies, and with the operators in an effort which is confidently expected to reach tolerance levels by the year 2000.

PROTECTION OF UNDERGROUND WATER

Lead Agency: Illinois Environmental Protection Agency

Problem and Summary

Concern over the protection of underground water is widespread and led to placing high priority on this issue in the State Water Plan. A special report of the Water Plan Task Force entitled "Strategy for the Protection of Underground Water in Illinois" was published in October 1984. Since that time activities have been dominated by the passage of PA 83-1268 regarding groundwater quality management and two reports mandated in that Act. The first of these reports in 1985 by the State Water Survey of the Department of Energy and Natural Resources identified hazardous substance activities in Illinois and performed a regional assessment of their locations and types. It also used existing data to perform a statewide assessment of current groundwater quality in relation to hazardous substance activity. Finally, it recommended a monitoring plan based upon hazardous substance activities, groundwater use, and aquifer susceptibility.

The second report mandated under PA 83-1268 was published in January 1986 by IEPA and entitled "A Plan for Protecting Illinois Groundwater." The Plan received public review through nine workshops and testimony at three public hearings. Core recommendations for the five year plan focused on clarification of goals, statewide monitoring, restoration efforts, land pollution control, and groundwater source protection programs. It also identified other issues which deserve serious attention. The plan now awaits action by the Illinois Pollution Control Board which has scheduled a series of public hearings.

Implementation of Recommendations

1. The first of seven recommendations on this issue in the State Water Plan was to establish levels of protection desired. This was done in the protection plan by considering standards, although additional work will be required to clarify standards and points of application.

2. The recommendation to determine users and uses has resulted in a number of steps including well permit modification by the Department of Mines and Minerals. The IEPA created a well location and numbering system, and the Water Survey has expanded its well information and inventory programs.

3. To develop an adequate resource inventory of the quality and quantity of underground waters the Water Survey has continued its monitoring efforts while expanding the data base.

4. The treatability of ground water and the interconnection of aquifers are being fully considered in the proposed plans.

5. The subject of local, state, and federal responsibilities for protection of underground water is being explored in depth as recommended in the Task Force Special Report on groundwater

and IEPA's recent protection plan. A variety of options are now being identified and discussed. This topic will remain active as branches and levels of government move into the next phase of implementation of the Special Report on Groundwater and IEPA's protection plan.

6. The identification of degradation and depletion of underground waters has advanced through studies leading to the mandated reports. In the expanded monitoring program and refined permit applications further refinement will result during the period of the five-year plan.

7. Implementation of the plans for protecting and managing Illinois' groundwater is underway through intensified agency efforts under existing statutory authorities. Full implementation will require various levels of approval including adoption by the Pollution Control Board, budgetary support, and proposed legislative changes.

FLOOD DAMAGE MITIGATION

Lead Agency: Illinois Division of Water Resources

Problem and Summary

Flooding resulting from unwise development of floodplains continues to cause significant damage in Illinois. The necessary means to mitigate flood damages are available through a mix of planning, construction, and regulatory programs administered at the Federal, State, and Local levels.

The Water Plan includes seventeen recommendations under this issue and adequate progress towards full implementation is underway or accomplished for the majority of the recommendations. All programmatic recommendations have been initiated and are under various levels of implementation. The major recommendations relating to funding have received a needed boost due to the "Build Illinois" program. Potential cuts in federal spending due to deficit reduction could reverse all of the progress being made under the recommendations requiring capital expenditures.

Implementation of Recommendations

1a. Adequate funding has been obtained to initiate a capital construction program for reducing the backlog in planned flood control projects. The "Build Illinois" program has been a major factor in funding this program. Potential cuts in federal funding could severely impede any progress in implementing this recommendation.

1b. The recommendation to revise project planning procedures to include evaluations of realistic non-structural alternatives, shorten study duration, and assure early termination of

unacceptable project proposals has been fully implemented within DOWR.

1c. The recommendation to stress local government participation and State-Federal cooperation has been fully implemented as an integral part of the revised planning procedures.

1d. Including hydraulic, hydrologic, and economic analysis models of flood prone watersheds for foreseeable, future changes has also been implemented.

1e. Modifying technical planning procedures and regulatory flood analyses to incorporate rainfall frequency values based on current climatic records and trends is underway through a $35,000 contract with the State Water Survey.

1f. Language to eliminate federal planning policies to remove arbitrary distinctions between types of flood damage problems and appropriate mitigation measures has been included in the current draft of the federal water resources omnibus bill.

1g. Funding is being sought for the recommended flood warning system involving a weather radar and meteorologists for a multi-year demonstration effort in northeastern Illinois by the State Water Survey.

2a. To improve rural flood control project implementation state leadership and programmatic responsibility will be maintained through the staff of the Illinois Department of Agriculture.

2b. The recommendation to conduct detailed basin by basin analysis of agricultural levee placement in order to improve planning and permitting decisions in rural areas will be implemented by DOWR as staff time becomes available.

2c. The recommendation to include land use planning for soil erosion and sediment control as a component of rural flood control projects was initiated by the Department of Agriculture through joint planning activities with the Corps of Engineers and the Soil Conservation Service.

3a. To strengthen statewide regulation of floodway construction, staffing in the Division of Water were increased over the last three years, but must now be maintained at the current experience level.

3b. A program is now in the initial stages to bring all known violations of the State's floodplain regulations into compliance with timely investigation and enforcement.

3c. The recommendation that consideration for protecting natural conditions become a part of the State's permit review process has led to preparation of legislative and regulatory vehicles which are now under interagency review.

3d. The recommendation that Federal Emergency Management Administration's (FEMA) floodplain management technical program should be completed for all flood-prone communities and updated for developing communities in order for local governments to have a sound technical basis for floodplain regulation, and Federal flood insurance rate reductions be allowed for non-structural flood proofing measures is being followed by the Division of Water Resources in cooperation with FEMA.

3e. A program is underway to implement the recommendation that the State should continue to seek federal funding and develop State and local funding of programs to rebuild or relocate flood damaged buildings so they are protected from future flooding.

3f. The recommendation that the floodplain information repository be maintained at the State Water Survey to (1) provide best available flood elevation data to floodplain managers (2) provide management support in the form of new flood-related reports on flood discharge values, and (3) assist local communities with amendments and revisions of insurance studies is being implemented, although shortages in funding and staffing has been a constraint on the program's effectiveness.

4a. The Division of Water Resources has prepared for use by local governments two assistance manuals on stormwater management. One manual describes the technical and legal issues on problems in controlling and managing stormwater management. The other manual presents a model stormwater management ordinance and more detailed information on regulation of new developments to insure proper management of stormwater runoff.

DRV reappropriately DCCA. If they can't, go to EPA (PSL Wtr Sprdge).

This is still a partly high priority what should we do?

WATER CONSERVATION

Lead Agency: Department of Commerce and Community Affairs

Problem and Summary

The Water Plan recognized that serious water shortages are to be expected in the future and that water conservation can be important in reducing demand. Yet conservation efforts have continued to be small and intermittent as the State has continued to enjoy a period of generally ample supplies.

The lead agency no longer receives federal or State funds for water conservation and its Office of Resource Conservation has been terminated.

Implementation of Recommendations

1. Those communities in Illinois which face water shortages are known to State agencies and have been informed. A letter

will be sent to each community offering DCCA assistance to help them construct user charges which encourage conservation.

2. The Department of Commerce and Community Affairs had previously acquired or developed educational material on water conservation, but no recommended promotional effort has been mounted.

3. The recommendation to promote the marketing of water conservation devices has not taken place.

4. Recommended revision of the State plumbing code to include water conservation fixtures has not been done. A new, nationally-recognized plumbing code is available from the Council of American Building Officials and many state and local building codes have adopted these provisions.

5. The recommendation to conduct and evaluate pilot projects at State institutions has occurred in at least one instance. The Springfield Energy Home, a project of the Department of Energy and Natural Resources, incorporates an efficient water conserving plumbing system.

6. The recommendation to work with local officials and utilities of communities facing water shortages will be impacted by the water rate studies underway in the Department of Commerce and Community Affairs. This is described in the subsequent section on Drought and Emergency Interruption of Supplies.

7. It is not known whether the curriculum for water plant operators has been adequately enlarged to include conservation practices.

8. The recommended retrofitting of 17,000 low income residences with water conservation devices has not taken place.

9. The water use inventory program has continued, but not to the detail necessary to evaluate the effectiveness of water conservation programs as recommended.

COMPETITION FOR WATER

Lead Agency: Illinois State Water Survey

Problem and Summary

The Water Plan recognized that increasing or new demands for water may become a serious issue in regional competition for water. One such potentially serious ground-water conflict in Kankakee and Iroquois counties was identified during the year. Funding for this issue to date is marginally adequate; and there are concerns regarding adequate funding in the future.

Implementation of Recommendations

1. The recommendation that the Water Survey continue to monitor water use in the State is being partly funded by the U.S. Geological Survey, and the Water Survey has been redirecting other funds to fully support this program. There are grave concerns that future funding will not be adequate to maintain the present program. In addition the present program should be expanded to include an irrigation point withdrawal file, a periodic canvass of irrigation withdrawals, interbasin transfers, and consumptive use.

   Water Survey studies supported by funds from the Division of Water Resources and the Department of Energy and Natural Resources in evaluation of supply and demand are underway and include interactive basin modeling and identification and technical management needs for ground-water conflict areas.

2. The recommendation to monitor new consumptive uses in the State is ongoing, but may be reduced during FY87 because of staff reductions.

3. This recommendation relates to the development of methods and procedures to assist users in evaluating the impacts of proposed developments.

Impact evaluations of new wells (not including 6-county northeastern Illinois area) that are projected to yield 70 gpm or more on any given day are required of the State Water and Geological Surveys under the Water Use Act of 1983. It is not certain if funding will be provided for this activity during FY87.

A micro-computer Interactive Basin Model has been developed for the Sangamon River Basin with funding support from the Department of Energy and Natural Resources and the Division of Water Resources. The model allows the users to determine the impact of existing or proposed stream withdrawals on downstream users. A similar model for the Fox River Basin is now under development. Additional funding will be needed to complete the State.

AQUATIC AND RIPARIAN HABITAT

Lead Agency: Department of Conservation

Problem and Summary

The Water Plan pointed to the importance of Illinois' streams, lakes, and wetlands in maintaining ecological balances and for their economic and aesthetic values. It also stressed the importance of accurate information such as provided by the Illinois Streams Information System (ISIS) and the inventory of wetlands.

Various federal and state programs to reduce non-point pollution and protect habitat such as the USDA's Conservation Reserve Program and the DOC's Wildlife Habitat Acquisition, Private Land Habitat and Forestry Development Programs, will improve and protect habitat throughout Illinois in the near future; however, habitat protection will require additional efforts. Resource inventories (e.g., ISIS and the Illinois Wetlands Inventory) are continuing and will be helpful in identifying significant habitat and providing the information base for planning and development. Planning, management, and coordination activities should focus on this high priority habitat. Attempts to expand existing authorities have not been effective.

Implementation of Recommendations

1a. Implementing projects have responded to the recommendation to increase the availability and effectiveness of water resources information. The Illinois Streams Information System is a statewide streams inventory which, when completed, will include data on all Illinois streams draining at least 10 square miles. By the end of 1986, 60% of the data will have been collected.

1b. The Illinois Wetlands Inventory is a comprehensive inventory of the state's wetland resources. The inventory will include Illinois' portion of the National Wetlands Inventory (NWI). By the end of 1986, 45% of the NWI mapping portion of the inventory will be completed.

1c. Statewide lake inventory data are being collected as part of several programs, but is not being integrated into ISIS or other inventories as yet. The Department of Conservation's FY'87 Budget includes funding to collect additional statewide lake data.

1d. A prototype draft Sangamon Basin Streams Plan has been prepared, but not finalized. It will identify the most ecologically, recreationally, and economically important aquatic and riparian habitats.

Turf issue with DOC & DOWR

1e. State resource agencies have met several times to work on the development of a comprehensive state geographic information system (GIS). Interagency coordination beyond initial information sharing could be improved.

2a. Draft rules which formalized environmental protection aspects of permitted construction activities in waterbodies have been prepared by DOWR, but met with substantial opposition in rule making. These rules have been withdrawn in favor of the current interim rules which provide less environmental protection than the previous rules. An Attorney General's opinion on the amount of environmental protection which can be provided given existing law has been requested as a first step in addressing this problem.

2b. No progress in implementing rules pending their clarification with regard to environmental provisions.

3. Regarding the need for an instream flow policy that will achieve an acceptable balance with other legitimate uses for Illinois water:

3a. Interim instream flow standard has been developed and adopted by the Task Force.

3b. To date, the policy and standard have not been fully accepted by State agencies and, therefore, have been less effective than anticipated. Current research activities appear very promising.

3c. Mechanism exists for revising the standard, but this would not address some of the remaining primary problems.

WATER-BASED RECREATION

Lead Agency: Department of Conservation

Problem and Summary

Water-based recreation remains popular in Illinois generating a total of almost 67 million activity days in 1985. Continued water quality improvement and development of access will increase opportunities. While the federal Land and Water Conservation Fund Program is nearing its end, the State has initiated a similar Open Space Land Acquisition and Development Act Program. Development of the North Point Marina at Illinois Beach State Park on Lake Michigan, a major public-private venture, will provide significant new access to Lake Michigan.

Implementation of Recommendations

1a. In the absence of a federal program, Illinois has advanced urban waterfront interest through a workshop and a report. The Urban Waterfront Renewal Study has been widely distributed and urban waterfront renewal activity, primarily by local communities, continues statewide. Policy at the state level has not yet been developed.

1b. No further workshops have been conducted pursuant to this recommendation.

2a. Statewide recreational use data has been added to the Illinois Streams Information System (ISIS) as recommended in the Water Plan.

2b. A prototype streams categorization system has been developed as recommended as part of the draft Sangamon Basin Streams Plan. This categorization system has been generally accepted by the Streams and Lake Use Management Work Group. A component

of the categorization system, Biological Stream Categorization, developed by affected agencies is almost finalized.

3a. Statewide existing stream access data have been added to ISIS in response to the recommendation that such data be organized and made available.

3b. No progress has been made in organizing existing data to guide the program in locating new sites.

4. Directory of Illinois Licensed Boat Charter and Livery Services has been widely distributed, copies are still available, and an update is planned for 1987, thus fully implementing a Water Plan recommendation.

ATMOSPHERIC CHANGES AND MANAGEMENT

Lead Agency: Illinois State Water Survey

Problem and Summary

The Water Plan noted that the stable climate of 1956-1973 is becoming colder with greater precipitation extremes. The report called for sustained monitoring and research to detect and predict future climate changes.

Significant progress is being made in implementing recommendations in most cases, although funding for the monitoring program is marginally adequate. Federally funded research may be impacted by Gramm-Rudman. There are no changes affecting the overall adequacy of the recommendations in addressing this issue.

Implementation of Recommendations

1. The recommended State Water Survey climate monitoring network operations were initiated in 1983 by diverting research funds. New funding initiatives were submitted each year since 1983, but these attempts to raise the level of support have not been successful, and as a result research programs continue to be impacted.

2. The Illinois Climate Center located in the State Water Survey has enjoyed continued success in developing user access to climate data. Although many measures may be used to ascertain success, the numbers of individuals and groups requesting data and assistance in interpreting data for their economic advantage continues to grow. The related element concerning long-range climate prediction falls into the category of high-risk, fundamental research. This type of research is on-going at many institutions in the United States and overseas, as well as a small effort at the State Water Survey, largely supported by the federal government.

3. The recommendation to pursue research to determine how to increase precipitation in Illinois is being implemented mostly with support from the federal government. The State Water Survey has maintained interest in weather modification and research in the United States and abroad which will allow it to continue to advise Illinois citizens and to provide scientific assessments of projects undertaken within the State. Continued funding for a major federally funded weather modification study, "Precipitation Augmentation for Crops" is uncertain at this time.

Support grants that has been funded.

4. No progress toward implementation of the recommendation to organize a Climate Detection and Assistance Team can be reported.

DROUGHT AND EMERGENCY INTERRUPTION OF SUPPLIES

Lead Agency: Illinois Division of Water Resources

Problem and Summary

The Water Plan pointed out that water supplies can be interrupted as a consequence of droughts and from other causes with serious economic consequences. The answer is constant readiness and rapid response.

State Water Plan agencies have remained aware of the seriousness of the problems that can exist within the State due to extended drought periods and emergency interruptions of water supplies. Ongoing research and planning efforts by both State and local agencies indicate that the statewide level of responsiveness to drought events is improving. Many public water supply systems are improving supplies and preparing drought contingency plans and DOWR and SWS are continuing to support research and planning for improved drought prediction and management.

In a closely-linked effort the Department of Commerce and Community Affairs has been studying the water rates of small communities. The objectives are to encourage local governments to adopt user charges which are (a) sufficient to support the water system without subsidy and (b) adequate to meet all operating expenses, debt service, bond reserve requirements, provide adequate maintenance, and create emergency reserves for system replacement. The small communities are also encouraged to adopt uniform rates or ascending block rates which promote water conservation. To date studies have been completed for 21 communities, and 15 are underway or scheduled for study.

Implementation of Recommendations

1a. As recommended in the Plan, the State Water Survey continues to issue monthly water and climate summary reports. This has become an extremely valuable service to public and private interests around the State. The Director of DOWR (co-chair) of the Drought Task Force reviews this report monthly to determine the need for State response.

2a. State Water Plan Special Report No. 3 entitled, "Drought Contingency Planning" summarizes the drought-related activities of Illinois State agencies. The drought response framework described in this report has been adopted and is ready for activation.

Current research projects conducted mainly at the State Water Survey are strengthening the State's ability to understand, respond, and manage drought events.

3a. The State Drought and Emergency Response Task Force has met annually to review readiness and is co-chaired by the Director of the Division of Water Resources and Head of the IEPA Public Water Supply Section.

4a. The Plan recommends that the Illinois Commerce Commission consider rate adjustments for proprietary water systems during water emergencies to promote conservation and compensate for lost revenue. Although the Commerce Commission is now more aware of the need for this type of responsiveness during drought events it is not known that direct steps have been taken.

• Dave Farrell is now with the Ill. Commerce Comm.
• About 2 (6 month process (case-by-case) to go before Commerce Commission.

ILLINOIS WATER USE LAW

Lead Agency: Illinois Division of Water Resources

Problem and Summary

Illinois water use law contains numerous uncertainties. It does not provide direct means to prevent water shortages outside of northeastern Illinois, or protect instream flow uses.

The State Water Plan review of this issue has triggered a number of currently ongoing interagency activities to develop programs and plans which will eventually allow for modifications to water use law and water management activities in Illinois. Adequate progress is now being made on this issue although the threat of future water use conflicts is becoming more of a concern to State agencies as well as private concerns, therefore, revisions to Illinois' water use law appear imminent.

Implementation of Recommendations

1a. The State of Illinois through the Department of Transportation Division of Water Resources has carried out a comprehensive investigation to precisely define and identify the "public waters" of the State of Illinois. This is now undergoing interagency review.

1b. The Department has also developed appropriate administrative rules and a regulatory program to protect the public's rights and interests in the "public waters" which is also undergoing interagency review.

2a. As recommended in the Water Plan the DOWR and the SWS are undertaking a study to determine the potential location and technical management needs for groundwater management districts. DOWR has now developed a program for contacting local interests to discuss the need for creation of local groundwater management districts.

2b. To provide groundwater data to soil and water conservation districts the SWS is now carrying out its mandate under P.A. 83-700. The demands of this program could require future funding increases.

3a. To develop a program and evaluate the need for legislation which will allow the determination and protection of minimum instream flows and lake levels within the State of Illinois the DOWR, DOC, WRC, and SWS continue to support research and planning directed towards understanding instream flow needs. An interagency meeting to review this program was held on March 25, 1986. The issue of the need for legislation was discussed at this meeting.

4a. To anticipate future conflicts the State Water Survey continues to monitor water use on a statewide basis and evaluate the balance of supplies and demands on a regional basis.

4b. A revised planning program is now being developed between DOWR and SWS to more specifically define and monitor regional water supply demands and competition. DOWR is reviewing legislation from other states which applies emergency powers to manage water use during drought events.

CROSS-CUTTING TOPICS

INTEGRATED WATER MANAGEMENT

Problem and Summary

Various water management problems such as operation of stream and lake programs and multi-purpose data programs can no longer be carried out effectively by single agency authorities. As documented throughout this report substantial progress has been made in various programs of water management. This has been accomplished in a number of ways including information exchanges and progress reports in the Task Force, organized work groups, and much improved and informal communication among agencies.

Implementation of Recommendations

1. As recommended, the Water Plan Task Force has been continued and has met quarterly. This body has provided a technical and policy forum for addressing water management concerns.

2. Geographic areas including river basins and stream segments can be useful in ordering multi-agency activities depending upon the severity of problems, data availability, and agency priorities. As reported among the operating issues this has been particularly applicable in stream and lake use management.

3. Incremental progress in data base management has been difficult but positive in the areas of streamflow measurements, stream indexing, and the natural resource information system.

4. No formal system for accountability of integrated water management programs has been established, but this continues as a desirable future activity.

CONFLICT RESOLUTION

Problem and Summary

Although Illinois has been remarkably free of water disputes historically, the possibility of controversy exists, and during the year there were active differences on a number of subjects as will be discussed. The Water Plan conclusion that adequate mechanisms exist for conflict resolution has been validated thus far. A highlight of the past year was the signing of the Great Lakes Charter.

Implementation of Recommendations

1. Resolving conflicts at the lowest feasible level of government remains a sound philosophy, although this may at times require legislative action. On the subject of dam safety, legislation affecting standards was passed, vetoed, and overridden. One consequence of this is that potentially hazardous dams that are structurally sound cannot be required to have enlarged spillways if the dam was once permitted.

2. Clarification of water use laws is presently awaiting an Attorney General opinion for a definition of public waters.

3. The recommendation to avoid the conflicts which arise during water shortages is being implemented through improved supply/demand information and regional and local planning.

4. The recommendation to support local districts has been followed in a number of ways including the furnishing of ground water information to soil and water conservation districts and in floodwater management through the Annual Floodwater Management Conference and in other ways of assisting in carrying out local flood zone management.

5. The Water Plan Task Force has continued to meet quarterly and through coordination efforts and by exchanging information has avoided problems which can result from agencies with closely related programs.

6. A problem of ground water levels in Kankakee and Iroquois and adjacent Indiana counties has resulted from heavy pumping which has lowered water table levels. Although heavy precipitation during November 1985 temporarily restored levels, the long-term problem remains. Officials from the two states have scheduled a meeting to seek a long-term solution.

7. Problems of Lake Michigan and the Great Lakes are being addressed by existing inter-state mechanisms as recommended, and in ways that will avoid future controversy. An historic event has been the signing of the Great Lakes Charter by the Great Lakes Governors and Premiers of the Great Lakes States and Provinces. The Charter establishes a prior notice and consultation procedure, a program of data base and information exchange, appropriate legislative and management initiatives, and enhanced research.

8. As recommended, the courts will be used only as a means of last resort, and has been avoided during the past year.

PUBLIC PARTICIPATION

Problem and Summary

The Water Plan Task Force recognizes that water is a subject of interest and concern to the public. Thus, during development of the Plan provision was made for frequent and diverse outside comments. Two advisory groups, regional committees, public hearings, and feature articles maintained active communications.

During the past year active public involvement has been concentrated on the subject of Protection of Underground Water for which nine workshops, three public hearings, and invited written comments contributed to the report "A Plan for Protecting Illinois Groundwater."

In other subject areas agency energy was concentrated almost exclusively on implementation of the Plan's recommendations.

Perhaps the present report should be widely reviewed by the public to determine whether adequate progress is being made, whether certain topics can be terminated, and whether newly-recognized problems warrant Task Force attention.

Implementation of Recommendations

1. The recommendation to conduct an "Awareness Program" for the leadership of the General Assembly and staff failed to materialize during May 1984 when it was not found possible to schedule a meeting during the busy legislative schedule.

2. The plan to publish articles in the Illinois Municipal Review and to appear at annual meetings of the Illinois Municipal League has not been pursued.

3. The plan to seek active involvement of the Illinois Association of County Board Members and the Township Officials of Illinois has not been pursued.

4. The advisory groups and the regional committees were continued through the time of public release of the final report, and then terminated by appropriate letters of appreciation.

5. The agencies have continued to use available news releases and the media to inform the public on issues contained in the State Water Plan.

OPERATING ISSUES

STREAM AND LAKE USE MANAGEMENT

Lead Agency: Environmental Protection Agency

Problem and Summary

Existing program authorities dealing with stream and lake use management do not generally respond to optimum use of water during normal conditions. In response to this problem a matrix has been developed which defines existing and anticipated stream and lake uses, which in turn can be related to program elements of individual agencies. Approximately 25 percent of the State has been programed so that data collection and other programs can be prioritized.

Implementation of Recommendations

1. In working toward the recommended identification of management authorities, efforts are being concentrated on a biological classification which will provide the relative quality of aquatic resources on a stream reach basis.

2. The recommended codification of State authorities and priorities within the Illinois Water Quality Management Plan is ongoing through the computerized Illinois Stream Information System.

3. & 4. The present stage of development and use of the evolving management system has not resulted in any serious overlaps or gaps in agency authorities.

STREAM DATA MEASUREMENTS

Lead Agency: Illinois State Water Survey

Problem and Summary

The Water Plan Report recognized that programs for the collection and dissemination of streamflow, water quality, and suspended sediment data are seriously underfunded. Recommended network studies carried out by the Work Group have been partially reported to the Task Force, and adequate progress is being made in addressing the issue.

Implementation of Recommendations

1. A statewide streamgage network analysis has been completed and will be summarized as a Special Water Plan Task Force Report. The analysis defines three levels of network activity: desirable, acceptable under financial constraint, and minimum. Both user interest and statistical analysis have been used to identify gages which could be dropped and locations where additional gages are needed.

2. Implementation of the recommendation to identify and support funding for a minimum network depends upon completion of network analysis described in Recommendation 1.

3. Evaluation of the water quality network is underway by requesting comments on the adequacy of the IEPA ambient water quality network. With regard to suspended sediment the Task Force has completed present consideration by a publication of Special Report 10 on the subject. This may change slightly depending upon configuration of the recommended streamgage network.

4. Results of users survey will be included in the Task Force Special Report in response to the recommendation on this action.

5. This recommendation that requests for stream measurement data be made known to the sponsoring agencies should be coordinated with the USGS.

STREAM INDEXING

Lead Agency: Department of Conservation

Problem and Summary

The Water Plan Report recognized that water resources management could be improved by use of more uniform stream indexing which consists of stream identification and river mile-location for filing, retrieving, and communicating data. There are numerous complications including existing systems and channel changes which alter river miles. Substantial progress has been made during the past two years.

Implementation of Recommendations

1a. As recommended a draft cross-reference table among the various systems has been prepared. As ISIS data collection is being completed basin by basin, additional cross-reference data are being provided to the State Water Survey.

1b. As the original scope of the issue has ~~broaded~~ broadened, use of a cross-reference table is being evaluated from a larger perspective including stream order and data organization.

2a. Major changes to River Mileages and Drainage Areas of Illinois Streams for the Sangamon Basin have been prepared as recommended.

2b. No formal progress has been made toward incorporation in interagency activities.

3a. Several meetings of the Work Group were held to discuss streams indexing, stream order, and related issues.

TURF BATTLE
· Within DENR (settled)? Stgr DICK
· Between IDOC/DENR

NATURAL RESOURCE INFORMATION SYSTEM

Lead Agency: Illinois State Water Survey

Dick Schicht says the INHS layer developed in NRIS.

Problem and Summary

Although some progress has been made on this issue it is far from adequate, primarily because of limited funding. There are parts of a System in place including ENR's Geographic Information System, a list of data sets on ENR's PRIME computer that can be accessed, and the Water Survey's Climate Assistance Service (CLASS).

Implementation of Recommendations

1. No progress can be reported on a statewide natural resources information center since it was not formed.

2. A work group was established to be the natural Resources Information System user policy committee, but was handicapped by lack of progress on establishing the information center.

3. There has been no progress in implementing the recommended referral service.

4. No progress can be reported in establishing a supporting computer center.

WATER RESOURCE PERMIT COORDINATION

Lead Agency: Environmental Protection Agency

Problem and Summary

The permitting process is a widespread activity in State government and one which the Task Force is seeking to improve through a Work Group. Issues involved are improved coordination among agencies, expansion of permit authority to activities not now covered, and involving agencies not now having permit authority.

The Work Group has not been active during the past year, and the Task Force will shortly have to decide whether to drop the issue and its eight recommendations or seek new leadership.

WATER RESOURCES RESEARCH AND EDUCATION

Lead Agency: Water Resources Center

Problem and Summary

Developing State water policies and improving the management of water resources requires highly qualified and competent personnel who are knowledgeable in many aspects of various disciplines. As a result, it is important that the State of Illinois support education and research at the same time that it supports the operational aspects of managing the water resources of Illinois. Through the efforts of the scientific surveys of the Department of Energy and Natural Resources and the Water Resources Center at the University of Illinois, continuing research has been underway which supports many of the issues and problems in State water planning. Additional training efforts are always needed in order to keep abreast of future issues since solutions to problems are developed by a step-wise progression of knowledge, sometimes requiring 10-20 years of research effort.

Implementation of Recommendations

1. The level of funding has dropped considerably since 1980 when federal cuts in water resources research were applied. However, the program has remained alive through lobbying of the Congress. New federal legislation will require a match of two state dollars for each federal dollar. Additional state support will be needed to keep abreast with federal available funds.

2. There have been frequent interactions between State agency personnel and researchers in solving various issues described in this report. The dialogue has been continuing and there is every hope that it will continue.

3. Projects supported for water resources research by DENR and the University of Illinois are definitely following the needs of the state water planning program. One only has to examine the list of projects funded each year to quickly ascertain that there is relevancy in university and State survey research programs.

4. Meetings are continuing through workshops on various special topics. For example, the need to educate the public on integrated management of lakes and watershed has been very beneficial to the citizens of the State. Workshops on criteria to manage instream flow are continuing between agencies and researchers.

A recent evaluation by the U.S. Geological Survey of the Water Resources Center at the University of Illinois suggests that the Center's program is outstanding in the United States. The reviewers found that the program was relevant to the needs of Illinois as well as producing excellent scientific information for the literature. The evaluation recognizes that the number of students being trained has been reduced by one-third from the 1970's. Therefore, new funds are needed in order to produce qualified planners, developers, hydrologists, aquatic biologists, etc. of our water resources. It is hoped that new Illinois money might become available through one of its programs for education and training.

RESERVOIR AND LAKE OPERATIONS

Lead Agency: Illinois Division of Water Resources

Problem and Summary

The Water Plan agencies as well as private interests have become increasingly aware of the issues, values and management needs of Illinois' lake and reservoir resources for water supply, recreation, flood control, and low flow maintenance. The majority of the recommendations under this operation have been fully implemented.

Implementation of Recommendations

1. The recommendation to develop an interim protected instream flow standard and procedures for implementation of the interim standard for all new reservoir projects was implemented with the publication of Special Report Number 6.

2. The Illinois EPA as lead agency has developed and implemented a Reservoir and Lake Protection and Enhancement Program for Illinois which includes technical assistance regarding lake quality protection, management, and restoration with an integrated approach to lake use enhancement including watershed protection.

3. The recommendation that all State water resource agencies take an active role in the pre-project planning and resolution of the multi-purpose operational procedures and policies for

all newly proposed reservoir projects is now current operational procedure among State agencies, with DOWR the designated lead agency for State-sponsored multi-purpose reservoirs.

4. The Water Plan recommendation that affected water resources agencies of Illinois and the Corps of Engineers meet annually during the second week of April to discuss operation and management issues and opportunities at all Illinois State-Corps Reservoirs has not been implemented. Recently signed State-Corps agreements call for the formation of a Kaskaskia system water management work-group which will be organized before the end of this year.

5. In response to the recommendation that all water supply impoundments with controlling gates should balance reservoir inflows with outflows during floods so that damages to agricultural floodplain lands are not increased, a review of the operations of the Federal reservoirs was conducted to evaluate this problem.

6. The recommendation that all non-State reservoir developments be processed as a "multi-agency permit coordinating review" issue has been implemented through the joint agency permit application process.

7. The recommendation for State water resources agencies to work with all water supply impoundment developers to insure that all projects optimize the available water supply storage and minimize environmental degradation will be reviewed under a proposed DOWR-SWS study which will evaluate Statewide water supply needs and availability.

8. The State Water Survey has continued to conduct lake sedimentation surveys and pursue research on methods for reducing reservoir sedimentation rates, and this recommendation has been implemented through the publication of Special Reports No. 9 and 10.

APPENDIX

AGENCIES AND INDIVIDUALS CURRENTLY PARTICIPATING IN WATER PLAN TASK FORCE

Office of the Governor

Karen Witter
Mary Ann Louderback

Water Resources Center, University of Illinois

Glenn E. Stout

Department of Transportation/Division of Water Resources

Gary R. Clark
James Freeman

Department of Agriculture

James Brim

Department of Conservation

Gregg Tichacek
Marvin Hubbell

Department of Commerce and Community Affairs

Rod Johnson

Department of Public Health

James Mills

Department of Energy and Natural Resources

Richard Schicht

Environmental Protection Agency

James Park
Robert Clarke

Task Force Officers

Donald R. Vonnahme, Chairman
William C. Ackermann, Executive Director