COMPETITION FOR WATER

Statement of the Problem

Illinois has historically been classified or assumed to be a water-rich state. Planners, developers, business interests and governmental entities have long presumed that except for rare drought events, the availability of a dependable water supply source is a given, and therefore, not a factor which might limit or modify future plans and decisions.

Recent events regarding proposals for implementing new and major consumptive uses of water within the state have raised concerns among water interests and professionals as to the impacts of these new demands on the currently available regional supplies.

The potential for major energy related water consumptive developments being implemented within the state will increase as the nation works towards a goal of energy independence. Illinois coal resources are considered as a valuable long term energy supply for the nation. Development of these coal reserves could potentially result in the placement of coal gasification facilities within the state. These facilities are major consumptive users of water with demands as large as a modern power plant or city the size of Peoria.

Proposals are also being considered for the development of coal slurry pipelines which would transport Illinois coal to other regions of the nation. These pipelines can also be major consumptive users of water that effectively export large quantities of water along with the coal resource.

At present, irrigation is being used on only 150,000 acres of Illinois cropland, but its use has been growing at the rate of about 15 percent annually. Irrigation can be a major consumptive user of water whose demands increase significantly during the dryest times of the year. A recent study of water demands in the Little Wabash Basin has concluded that a slight increase above prevailing commodity prices could result in basin-wide irrigation withdrawals approaching the median stream flow during the growing season.

Recent studies of public and industrial water supplies in the Chicago Metropolitan Area have determined that groundwater withdrawals from the deep sandstone aquifers are at a level which is three times the natural recharge rate of the groundwater source. This example of regional competition for a limited resource is being addressed through the state's authority to allocate nearby Lake Michigan water to communities in competition for the groundwater resource.

Increased concerns are also being expressed by environmental, recreational and other interests for consideration to be given to the protection of minimum instream flows necessary for public health and safety, water quality, navigation, and fish and wildlife considerations.

It is clear that the issue of competition for water is complex. It is also seen that the State is not in a position to address completely the complex issues involved at this time.

Task Force Progress to Date

The 1981 Task Force Progress Report discusses in some detail ongoing programs which (1) evaluate the issue, (2) reduce or mitigate conflicting demands, (3) increase demands, and (4) suggest options through supply development and demand modification. There has been no essential change in these program goals.

Considerable progress has been made with three major efforts underway to address the demand component of the competition for water issue of the State Water Plan.

A detailed inventory and review of public water supply demands and resource availability for both surface and groundwater supplied systems is being conducted. The groundwater systems evaluation is now complete. The surface water supplied systems evaluation will be completed by December of 1982.

There is also a major instream flow quantification assessment. This statewide assessment is initially concentrating on fishery needs but will expand into assessing recreation, water quality, and navigation requirements as further information is developed. Detailed instream flow studies are now completed for three major basins in the State and two additional basins should be completed by the spring of 1983.

Also completed is an analysis and projection to the year 2000 of self-supplied industrial water withdrawals. Projections of irrigation water demands are underway.

ENR Conference on Competition - To raise the level of awareness by the public and decision makers to the competition issue, the Department of Energy and Natural Resources conducted a conference in Springfield on September 19-21, 1982. Entitled "Competition for Water: Can Illinois Stay Afloat?". The meeting featured speakers from Illinois and the nation. Major sessions were devoted to the topics "The Players: Nature and Man", "Referees in the Competition", and "Water Resources in the 21st Century".

Future Activities - During 1983 various alternative futures will be addressed. This assessment is expected to identify any potential supply/demand conflicts in location and time. Solutions for a variety of problems considering various levels of government and private interests will be explored. This could suggest the importance of water diversions.

Recommendations for Policy and Programs

- That the 3-year study to identify on a regional basis the water supplies and the future demands related to energy, irrigation, public, industrial self-supplied, instream flow needs, and other demands be continued.

AQUATIC AND RIPARIAN HABITAT

Statement of the Problem

Illinois' diverse aquatic environment includes natural and man-made impoundments; swamps, bogs and other wetlands; and major rivers with their tributary streams. Each type of water contains a specialized community of plants and animals, dependent on the existence of a complex array of habitat types in and adjacent to the water for the community's continued survival.

Man's activities in aquatic and riparian habitats are primarily concentrated in the most biologically productive portion, the ecotone or transition zone between land and water or the riparian forests and wetlands and the drier upland environments. To meet society's expanding economic, residential, and agricultural needs, streamside forests may be removed, stream channel alignments modified, flood plains and stream bottoms mined, and streams impounded. Lakeshores and marshes are often filled for construction sites; biologically productive in-shore areas covered with blankets of sand to create swimming beaches; lakeside septic systems and fertilizers may leach into lake water, enriching it and causing accelerated eutrophication or aging of lakes. Poor watershed land management and in-lake wave wash on unprotected shorelines deliver silt to lakes, which reduces water volume, covers productive bottom habitat and often carries a variety of organic and inorganic contaminants that impact aquatic life.

To achieve the State's goal of conservation or wise use of Illinois' natural resources, management of aquatic and riparian habitats must be based on the State's needs for these resources, sound ecological principles, and adequate resource information organized for decision making. Over the past 100 years, various State agencies and academic institutions have collected much information on Illinois' aquatic resources, often with little or no coordination. This wealth of information is scattered throughout the State, and is currently not available in a form usable for statewide planning and policy and program development. Similarly, coordination of research activities is minimal, and, therefore, for many subjects the extent of existing information is unknown. Data gaps are difficult to identify, and priority setting of aquatic research needs is difficult. Lack of coordinated State information gathering is one major reason why clearly defined State policies for managing aquatic and riparian habitats do not exist.

Task Force Progress to Date

The aquatic and riparian habitat issue is complex, and, thus, developing implementable solutions require complex strategies for the following elements: research coordination, information system development, management program coordination, and identification of the in-stream flow requirements of aquatic organisms. Since the publication of the 1981 State Water Plan Progress Report, considerable progress has been made in a variety of areas.

Research Coordination - In June, 1982 water resources research was discussed in depth at the annual meeting of the Water Resources Center at the University of Illinois. Since then, the issue of water resources research needs was elevated to a separate interagency operating issue. Progress on this topic will, therefore, be reported elsewhere in this document.

Computerization of Aquatic Resource Information - In August, 1982 the Department of Landscape Architecture, University of Illinois, under contract to the Department of Conservation, successfully completed Phase I of the Illinois Stream Information System (ISIS). ISIS development has included: selection of the data base management system for over 100 parameters for each Illinois stream with a drainage of ten square miles or larger, verification of data sources, development of data collection methodologies, specification of data formats, development of retrieval programs, creation of a hydrologically-oriented stream indexing system, testing of the system by the collection and entering of data on the Sangamon River basin, system documentation, and development of recommendations and cost estimates for completion of ISIS statewide. Phase II, currently underway, will use Sangamon basin data to assist the Illinois Environmental Protection Agency (IEPA) in reviewing Illinois' water quality standards for the basin; complete a Sangamon basin report; collect and enter selected data items for the Kaskaskia, Fox, Des Plains, and Big Muddy basins and the East St. Louis region; and complete the streams indexing framework statewide. ISIS will provide the data necessary to effectively plan for and manage Illinois' stream resources as both aquatic habitats and recreational resources.

In Fall, 1981, the Department of Conservation obtained funding support from both the U.S. Department of the Interior's Bureau of Land Management and the Office of Surface Mining to begin development of the Illinois Fish and Wildlife Information System (IFWIS). All available life history information will be collected and computerized for almost 1,000 species of vertebrates and invertebrates inhabiting Illinois. The System, under contractual development by the Illinois Natural History Survey, will have information on 270 species by mid-1983. When completed, the availability of species information useful for management will have been assessed and data gaps identified, which will allow support for future research efforts to be better targeted.

Legislation was introduced in the Spring, 1982, session of the General Assembly to inventory Illinois wetlands and develop a wetland management and protection program. Although the legislation failed, the Department of Conservation will conduct the statewide inventory as funds become available. Scoping the inventory, which will consider already existing data, is currently underway.

The Department of Energy and Natural Resources (DENR) has two computerized resource information efforts underway. A planning study will soon be completed for development of an Illinois Natural Resources Information Center. This Center's goal is to organize the considerable data on Illinois natural resources collected by the Illinois Natural History, Water and Geological Surveys and others into a more usable system. This is discussed more fully in the Progress Report section of the Natural Resources Information System operating issue.

As a result of the Federal Surface Mining Act, DENR has been given responsibility for determining those lands in Illinois, which,

due to their values for other uses, are unsuitable for surface mining. A request for proposals was released in November, 1982 for development of a geographic resource information system to enable efficient review of proposals to surface mine Illinois coal. These activities are more fully explained in the Progress Report section on the Natural Resource Information System operating issue.

Program Coordination - Coordination of lake, stream, and wetland management was included within the original scope of the habitat issue, along with development of a uniform stream indexing system for state agencies. Since then, both of these topics have become operating issues, and their progress is discussed in the operating issues section of this report, as well as in the section on Integration of Water Quality and Quantity Management. The State's present economic situation, reflected in reduced staff levels and budgets, has increased the need for state agencies to coordinate and target their water resource activities to insure that priority needs are addressed and duplication of effort is avoided.

In 1983, the Illinois Department of Transportation, Division of Water Resources, will introduce formal rules and regulations for "An Act in Relation to Rivers, Lakes and Streams of 1911", that explicitly include environmental considerations in water resources planning and development. This will allow environmental concerns to play an appropriate role in decisions concerning granting permits for construction activities along Illinois' rivers, lakes and streams.

Instream Flow Requirements - Over the past five years, substantial research has occurred on instream flow dynamics and the flow-related requirements of aquatic organisms inhabiting Illinois' streams. The Water Plan's Instream Flow Work Group sponsored an Instream Flow Workshop on June 22, 1982 to assess progress to date in developing Illinois' capability to determine the protective flows necessary to perpetuate native aquatic life forms, and to develop long-term direction for the State's instream flow research and management efforts. The Workshop was attended by persons involved in the research effort; the use of the methodology to determine recommendations for specific Illinois streams, and the development of instream flow policy. Based on the Workshop, the Instream Flow Work Group made recommendations to direct further activity given in the following section.

Recommendations for Policy and Programs

- That the development of the Illinois Stream Information System (ISIS) be continued and that the system be implemented statewide to assist in stream planning and management and as an important component of a statewide resource information system.
- That a statewide inventory of wetland environments be initiated and that wetland information be incorporated into the ISIS data base framework.
- That efforts to develop an integrated statewide geographically-based computerized resource information system continue, with water resource information an important component. All agencies are urged to fully coordinate their efforts in these areas to avoid duplication and reduce costs.

- That agencies actively support efforts to amend "An Act in Relation to Rivers, Lakes and Streams", to incorporate appropriate consideration of environmental concerns into water resources planning, development, and permitting.
- That the State Water Plan Task Force during 1983 agree on:
    a) an instream flow protection policy for Illinois,
    b) a long-term planning and research agenda for instream flow, and
    c) a State interim instream flow standard for Illinois' streams.

WATER-BASED RECREATION

Statement of the Problem

Because of Illinois' geologic history, few natural lakes exist, and they cannot completely meet public recreational needs. Most lakes in Illinois have been artificially constructed, usually for uses other than recreation, and often with little or no regard for the stream resources and associated amenities that were lost. The environmental movement of the late 1960's increased awareness of the importance of rivers and streams as major recreational and environmental resources to be protected and wisely used.

In the early 1900's, Illinois' lakes and rivers were primarily used by hunters, trappers, anglers, and for transportation. Since the early 1950's, participation in other water-based recreational activities, such as boating, canoeing, sailing, water skiing, and swimming, has increased dramatically. Governments at all levels now provide opportunities for these recreational activities and have instituted regulations to protect water quality and mediate water use conflicts.

Information on the use of recreational waters is important to both the Illinois Department of Conservation (DOC) and the Illinois Environmental Protection Agency (IEPA) in managing water resources, approving access site development applications and establishing water quality standards for lakes

and streams. Identification of the reaches of a stream used for various recreational activities is also necessary for determining instream flow reservations. To date, in Illinois, no attempt has been made to fully determine the statewide magnitude and diversity of recreational water use and to determine the recreational carrying capacities of lakes and streams. For effective environmental impact analysis and management decision making to occur, accurate, relevant, statewide water resource and recreational use information must be readily available.

Over the past twenty years, under authority granted by the Illinois Boating Act, the DOC has developed and assisted in the development of nearly 200 lake and stream access sites using revenues from the registration of motorized craft and sailboats over twelve feet in length. While this represents a substantial accomplishment, these access sites are located primarily on the State's large rivers and Lake Michigan. Other recreationally significant waters, such as the Mackinaw, Spoon, and Embarrass Rivers, have little or no access.

Illinois' largest urban centers are located adjacent to large rivers or Lake Michigan. Early development on these waterfronts was primarily commercial, industrial and cargo handling facilities. Today, many waterfront factories and docking facilities are being refurbished as apartments, condominiums, office, and commercial buildings, and the associated riverbank and lake front

lands are being converted to public parks and prominades. The revitalization of urban waterfronts has increased interest in protection of the adjacent lake or river and its development for recreation.

Task Force Progress to Date

Substantial progress has been made in 1982 on the components of the water-based recreation issue, including recreation use information, recreational access, boating information, boating legislation, and urban waterfront renewal. As a separate, but related effort, the report "Outdoor Recreation in Illinois: The 1982 Policy Plan" is under preparation.

Recreational Use Information - The Illinois Stream Information System (ISIS) provides data on the existing use of streams for recreation, as well as their potential for use. Information is also being collected that identifies barriers to increased recreational use. By August, 1982 methodology for measuring recreation use was developed and data for the Sangamon River basin was collected and entered into ISIS.

During 1983, in cooperation with IEPA, using federal funds from USEPA, use information will be collected on the Kaskaskia, Fox, Des Plaines, and Big Muddy River basins and the East St. Louis region. Using ISIS data, a stream classification system will be developed and used to assist IEPA in water quality standard setting and the DOC in identifying stream management and recreational development priorities. The DOC intends to complete recreational use data collection and basin classification statewide and add data on impoundment use to ISIS as funds become available.

Recreational Access - ISIS staff have collected information on recreational access to Sangamon basin streams. While data collection focused on developed public and quasi-public boating access, considerable information was also obtained on "informal" access sites, such as road bridges, used by recreationists. Data on informal access sites will be valuable in identifying locations for future access sites. In FY 83, access site information will be collected for the Fox, Des Plaines, and Kaskaskia Basins. Funding has been requested for FY 84 to complete both the recreational use and access site components of ISIS statewide, as well as carry out a statewide survey of boaters to determine their access needs and concerns. The DOC will analyze the results of both the facility survey and the boater questionnaire, set access priorities for streams, and actively seek local sponsors for site development and maintenance.

Boating Information - The Illinois Boating act requires the licensing of boat rental enterprises and charter services, as well as annual inspection by the DOC of the craft for hire to determine their safety for public use. During its annual inspection of facilities in Spring, 1982, the DOC surveyed boat livery operators statewide to determine the availability of rental boats and associated services and costs. The DOC will carry out a similar survey of charter-boat captains and publish the results of both surveys in 1983.

Boating Legislation - The DOC will introduce an amendment to the Boat Registration and Safety Act in the 1983 session of the General Assembly to increase boat registration fees. This will bring these fees in line with similar fees charged for snowmobile registration and provide funds for additional boating access and related construction projects.

Urban Waterfront Renewal - In May 1982, using federal Water Resources Planning Act funds, the DOC entered into a contract with Open Lands Project, Inc., for a study of Urban Waterfront Renewal (UWR) in Illinois. The objectives of the study include documenting the status of UWR activities statewide, reviewing the UWR programs of other midwestern states, evaluating the reasons for successful and unsuccessful UWR efforts; and developing recommendations for an appropriate State role in UWR. The project report will be completed in 1982. This report will be circulated to participants at a subsequent UWR workshop. The report will then be revised and submitted to the State Water Plan Task Force for review and concurrence on a State urban waterfront renewal policy. The report will then be available to the public.

Recommendations for Policy and Programs

- That recreational water use information be collected on both lakes and streams, computerized, analyzed, and these environments classified based, in part, on their significance as a recreational resource. This recreational information and classification will be used in water quality standard setting and to improve the provision of boating access.
- That the State Water Plan Task Force support efforts to increase recreational access to Illinois' waters.
- That, following consideration of the final project report, the State Water Plan Task Force adopt a State urban waterfront renewal policy in 1983.

ATMOSPHERIC CHANGES AND MANAGEMENT ISSUES

Statement of the Problem

Atmospheric changes are altering the quantity and the quality of the waters of Illinois. Some changes are slow, others rather sudden, and many are just being realized through environmental problems and economic losses. Weather changes due to natural fluctuations in climate and also those related to man's influence on the atmosphere, exist in Illinois.

The atmospheric issue divides into three sub-issues as follows, around which the chapter is organized.

1) climate change and the prediction of future climate conditions,

2) inadvertent weather and climate modification; and,

3) planned weather modification.

Task Force Progress to Date

The Task Force has essentially completed its consideration of Atmospheric Changes and Management Issues by the publication in August 1982 of a Special Report No. 2 with that title. Reference is made to that available report, and it is summarized briefly here.

Climatic Changes and Predictions of Future Climate Conditions - The goal of state policies relating to climate, climate change, and climate prediction are to improve the resilience of our water resources to climatic impacts. Many impacts relating to the climatic extremes of the 1970's were negative involving loss of income to the state, local conflicts, crop losses, loss of business income, and higher taxes. The progress and recommendations for six action options are identified below.

1) There is a lack of awareness of the recent degree of climate change and its now serious impacts, and thus a program of information dissemination about the climate-economy interactions was launched in 1982 to increase public awareness through news releases, the preparation and release of public information brochures, and 36 presentations at public gatherings and scientific meetings.

2) Of critical importance in monitoring climate change has been the funding by DENR of a network of 15 climatic stations distributed across Illinois which were installed in 1982.

3) The Illinois Climate Center, a part of SWS, began issuing monthly predictions of monthly and seasonal precipitation in 1981. These are distributed to local, state, and federal agencies involved in water resource management and planning. Funding was received in 1982 from state and federal agencies to launch a program to provide real-time climate data and predictions to several state agencies and farm groups. These demonstration projects will help develop the recommended Climate Data and Prediction Center, seen as an integral part of the Illinois Natural Resources Information Center (INRIC).

4) The Water Survey performed an in-depth study of the 1980-81 drought in southern Illinois and the resulting report provides information useful to local and state decision makers who must deal with future droughts. The recommended formation of a state Climate Detection and Assistance Board (CDAB) was not accomplished in 1982.

5) Development of a functioning warning system for climatic extremes such as droughts, heat waves, floods, and cold waves has not been developed largely because of the lack of contingency plans and establishment of the CDAB.

6) Intergovernmental communications relating to climate have been partially established. The Illinois Climate Center at the SWS largely performs this task. A regional project was federally funded to the SWS to develop climate coordination in the Midwest for both state agencies and federal agencies involved in climate data, research, and services.

Inadvertent Weather and Climate Modification - The goal of state policy relating to inadvertent weather and climate modification is to understand the changes caused by Illinois and their impacts, and from this understanding to establish policy positions and regulations relating to unfavorable climate modification for the ultimate benefit of Illinois and the nation. Inadvertent climate modification ranges from local effects due to large industries, power plants, cities, and broadens to include effects of jet aircraft on cloudiness, acid rainfall, and the broader issue of the CO_2 and ozone effects on climate.

The SWS has established a network of 5 rainwater collection and air sampling stations, and the IEPA has a network of air pollution monitoring stations distributed about the state. Data collection is near optimum but must be continued with data storage in INRIC. Research, particularly relating to atmospheric chemistry and air pollution continues, but is funded largely by federal sources.

Illinois has established its policy position on federal air quality regulations through the IEPA. Attention is being given to the issues of acid rainfall by the SWS.

A major public education program about acid rainfall was initiated by SWS in 1982. More than 25,000 brochures were distributed through the state's educational system and to the public. Numerous radio and television appearances have been performed.

Planned Weather Modification - The goal of state policy is to develop a rainfall enhancement capability within a societal and environmentally sound framework. Potential changes in summer rainfall would produce cost effective benefits for crop yields and public water supplies. However, the technology is not established. Progress in five issue/program areas follow.

Support for research, largely from federal agencies, seriously dwindled during 1982. Limited research has continued at SWS, particularly to study cloud physics and project evaluation approaches. The long desired major experiment to define the technology awaits sizable funding.

Evaluation of locally-supported non-experimental cloud seeding projects involves statistical and physical analyses of data collected during the project. The SWS completed in 1982 an evaluation of the 8 Illinois cloud seeding projects during 1976-80. Much of the support for these studies came from federal funds.

The State law that controlled the use of weather modification in Illinois was sunset in 1981. However, a new act assigning regulatory activities to DENR was enacted. There were no cloud seeding projects in Illinois in 1982 and no use of regulatory functions.

The Water Survey continued to provide public information (brochures and workshop in 1982) to inform about weather modification.

Advisory type organizational assistance to those wishing to develop cloud seeding projects was available by SWS and DOA. Since no projects were developed in Illinois in 1982, very little assistance was needed.

Recommendations for Policy and Programs

Climate Change and Prediction

- That the State create an awareness of climate change and its importance through a program of social impact research and information dissemination.
- In cooperation with the federal government monitor climate trends and maintain a research program on the causes of climate changes.

- Maintain the Climate Information Center with direct user access to climate data and predictions.
- Through creation of a Climate Detection and Assistance Board develop contingency plans for dealing with climate extremes such as droughts and floods, and devise a warning dissemination means.

Inadvertent Weather and Climate Modification

- That the State establish policy positions and regulations regarding unfavorable weather and climate modification.
- That a research program be maintained for refined understanding of such man-made effects as increased carbon dioxide, acid rain, and jet contrails.
- That a public and institutional awareness of inadvertent climate modification be created, particularly in our major metropolitan areas.

Planned Weather Modification

- A state policy to develop a rainfall enhancement capability within a societal and environmentally sound framework.
- A major and definitive field experiment in cooperation with the federal government to determine how, where, and when rainfall can be increased in Illinois in a predictable fashion.
- That the State cooperate with local weather modification districts in evaluating operational cloud seeding.
- That Illinois continue to regulate weather modification activity.
- That an information program be maintained for the balanced presentation of the facts and uncertainties regarding planned weather modification.

DROUGHT CONTINGENCY PLANNING

Statement of the Problem

Drought may be defined as a nature-caused period of below normal rainfall, and ensuing deficiencies as defined for various specific, human activities and needs for water.

Observations over the past 100 years document the recurring occurrence of droughts in Illinois. Yet, there have been no serious droughts in the past 25 years, and this has probably reduced our awareness and ability to cope when such a deficit period next occurs.

Task Force Progress to Date

The State Task Force on Drought prepared a report for the Governor in 1977 that outlined the causes and results of drought. Among the impacts of such events it cited the effects on rural households, particularly those with livestock, which are often the first to be affected because of reliance on shallow wells. Public water supplies of more than 30 communities in central and southern Illinois which are frequently impacted. Damage to crops is probably the greatest potential area of loss. The environment may be seriously damaged by lowered water quality, composition of aquatic organisms, the increased probability of wildfires, and the effects on migratory and other wildlife. Navigation may be adversely affected with resultant increases in transportation costs.

Ongoing Programs - Illinois and the federal government have several excellent programs related to droughts, and thus the requirements of a drought contingency program are to identify, alert, and monitor these in a coordinated fashion.

Among the federal agencies can be cited the Department of Agriculture, the National Weather Service, and the Federal Emergency Management Agency.

Among Illinois agencies, the Emergency Services and Disaster Agency (ESDA) is the State coordinating agency in the event of any kind of disaster, coordinating the responses of all State Agencies.

The State Environmental Protection Agency continuously monitors public water supplies and offers technical assistance and works with other state agencies in attempting to resolve water shortage problems.

The Illinois State Water Survey conducts scientific studies into the measurement, utilization, and conservation of water which guide other state and federal agencies, municipalities, industries, professional groups, well drillers, and others. The Water Survey Division continually monitors water conditions in the State and prepares detailed monthly reports.

The Department of Commerce and Community Affairs provides a variety of technical services to local governments. In the area of water resources and water shortage situations, the Department's services may include workshops, publications and guidance.

The Department of Public Health assesses the potability of water derived from privately owned sources.

The Division of Water Resources concerns itself with water supply issues, as well as technical assistance in planning or water system design, special district organization, or the search for funding alternatives. The Division sells available waters at Kincaid, Shelbyville, and Carlyle Lakes and allocates Lake Michigan waters as a part of an ongoing program.

The Illinois Department of Agriculture assists farmers in water-short areas in obtaining water for livestock and performs other related supporting roles.

Drought Response - A Special Report No. 3 entitled "Drought Contingency Planning" has been prepared by the Task Force and will be issued in the near future. The report details the drought-related activities of State and federal agencies. It also presents a drought response framework with the following elements:

1. Identification of the Onset of Drought
2. Extent, Severity, and Duration of Drought
3. Convening Drought Response Task Force
4. Develop Appropriate Level of Public Notice
5. Reassessment Based Upon Condition Reports
6. Encouragement of Appropriate Responses
7. Coordinated Assistance of State Agencies
8. Disaster Declaration from the Governor

9. Seeking Federal Disaster Assistance
10. Supplemental Funding for the State Disaster Fund
11. Public Education

Recommendations for Policy and Programs

- That a Drought Task Force be established before June 30, 1983 and that it institute the drought response steps as outlined in the report "Drought Contingency Planning".
- That the respective State agencies refine their drought response capabilities with guidance and coordination by the Drought Task Force.
- That the Community Guide Book recently developed by the IEPA be used for working with local communities for water emergency planning.
- That a Climate Detection and Assistance Board be established under the leadership of the State Water Survey/DENR to coordinate the State's program relating to weather and climate.
- That the Illinois Commerce Commission consider rate adjustments for proprietary water systems during water emergencies to promote conservation and compensate for lost revenue.

Statement of the Problem

Illinois has, for the last twenty years or more, been relatively free of major water use conflicts. There also has been a virtual absence, in the State of Illinois, of any droughts from the period of 1956 to 1975. Localized drought events in the periods of 1976-77 and 1980-81 have only reminded citizens in small areas of the State that water supplies can indeed become limited.

Illinois has, since the decade of the fifties, experienced tremendous growth in population and industrial activity. This growth has significantly increased the State's demands on its water resource. These demands have so far been met due to development of the State's water supply sources and the fortunate lack of major drought events during this period of growth and development.

Concern is increasing in the State regarding the more frequent occurrence of climatic extremes such as drought events (see Special Report No. 2 - Atmospheric Changes and Management Issues). The impact on the State of Illinois, due to a widespread and prolonged drought event, could be major with existing water users competing for increasingly limited supplies.

Whether State and local governmental units have the necessary management tools and laws to properly react and follow up to such an event is a serious concern shared by most water resource professionals within the State of Illinois.

Concern has also been expressed in regions of the State regarding the potential impacts caused by major new users of water such as synthetic fuel development projects, coal slurry pipelines, and irrigation. Whether these and other new users of water could increase demands beyond available regional supplies is a concern that will be addressed in the Competition for Water Issue.

Task Force Progress to Date

A Division of Water Resources staff review of the Water Use Law issue over the last year has concentrated its efforts on reviewing statutory water management law of the eastern United States and evaluating the full water use management potential of current Illinois Statutes. Questions raised during this review concern what type of water management law is necessary and sufficient for Illinois at the present time and foreseeable future.

These basic questions are as follows:

1. Does Illinois need completely new and comprehensive water management legislation?
2. Would the full implementation of current water management statutes be sufficient to manage Illinois' water resources?

3. Would current statutes along with some select amendments be sufficient to manage Illinois' water resources?
4. Would improved or clarified state emergency powers to manage or allocate water on a regional basis in times of drought be sufficient to manage current and future water conflicts?
5. Would legislation requiring a water use reporting and registration system be of value to the state in monitoring and planning for regional water use and demands?

The ongoing Water Use Law evaluation is now in the process of seeking answers to the above questions. An evaluation of the basic issues relating to these questions along with supply versus demand projections from the Competition for Water Issue should allow the State Water Plan Task Force to determine the type and range of necessary changes, if any, to Illinois' water use law and water management programs.

In reviewing existing water law in relation to water use demands and conflicts it becomes necessary to classify the nature of the water demands and conflicts in order to complete a proper evaluation. This classification has resulted in a basic taxonomy of water use law shown below as a selection of regional deficits by conflict categories.

A) Resource Use Conflict Categories

1. Surface water use impacting another surface water use.
2. Ground water use impacting another ground water use.

3. Ground water/surface water use conflict at interface.

4. Developed waters (e.g. reservoirs) use impacting natural waters.

5. Atmospheric waters (e.g. cloud seeding) use impacting surface waters.

B) Geographic Use Conflict Categories

1. Instream vs. offstream uses

2. Riparian vs. non riparian uses

3. Intrabasin vs. interbasin uses

4. Instate vs. out of state uses

C. Demand Conflict Categories

e.g. domestic, municipal, industrial, irrigation, livestock, recreation, fisheries, water quality, power production, mining

The main thrust of this water law evaluation will concentrate on the five items listed under A. as they relate to proper resource management and conflict resolution. The items under B. and C. will then be evaluated only as they relate to the effective implementation of appropriate water use law and management mechanisms.

Existing statutory and common law now in existence in Illinois is being reviewed in detail to determine the applicability of such law to resolving or mitigating potential future water use conflicts and shortages.

Of major interest in this review is whether full applicability of the State's public waters jurisdiction is sufficient to protect the public rights and interests in the larger rivers and streams of the State.

A related, yet independent, study is now underway at the University of Illinois Water Resources Center which is designed to determine a set of legal principles and factual characteristics that define a public water. This focus on defining public waters will aid in delineating the extent of state water resource management powers.

The review of eastern states' statutory water management laws has indicated that the eastern states are moving away from the limited common law riparian-reasonable use doctrine of water use law to various statutory forms of water use management systems.

This review of the water law of 30 eastern states showed that only six eastern states lacked any form of state water use management legislation. Four states have some form of limited water use management legislation while 20 eastern states have various forms of fairly comprehensive water use management law for surface and/or ground water. Also six of these eastern states are now in the process of developing more comprehensive forms of legislation for solving various water use management problems in their states.

Further review of the law of the 20 states with water use management statutes will be conducted to evaluate the applicability of such laws to water use conflicts and shortages in the State of Illinois.

The need to change or modify Illinois water use law depends in part on the actual or perceived seriousness of current and projected water use conflicts and shortages and their general nature and scope. The need for change will,

therefore, be judged by the State Water Plan Task Force and general public. In order to reach this judgement, some basic questions should be addressed to help aid in the proper evaluation of the law and its modifications. The following is a listing of review questions to be applied in evaluating any existing or proposed change to water management law.

1. To what degree does the law preserve and protect the public interest, public trust, and riparian rights?
2. To what degree does the law serve to minimize water use conflicts?
3. Does the law ensure reasonable equity among diverse uses?
4. Does the law help to minimize the risks that demands will not be met?
5. To what degree does the law promote efficient and reasonable economic use?
6. Does the law allow for provision of water to areas of need while protecting areas of origin?
7. Does the law allow for timely and reasonable dimunition of rights in times of drought?
8. Does the law recognize the interrelated nature of surface and ground water?
9. To what degree does the law provide for the protection of recognized instream uses and environmental values?
10. Does the law avoid unneeded management in areas of minimal competition?

These criteria will be applied during the upcoming year to various levels of proposed change to Illinois water use law and management programs.

Recommendations for Policy and Programs

- That current water use law including full public water jurisdiction be evaluated as to their applicability for resolving projected water use conflicts and regional deficits.
- That defined inadequacies in current law be resolved through recommended programmatic and legislative changes.

CONFLICT RESOLUTION

Statement of the Problem

There is always the opportunity for conflict among individuals and the institutions through which they function. This is true within the field of water resources, although Illinois has been remarkably free of water disputes because of its generally ample supplies of this resource. A major exception to the general experience has concerned the allocation of Lake Michigan water in northeastern Illinois. This complex problem has involved over-development of a deep ground water supply, regional competition, the interests of other states bordering on the Great lakes, decrees of the U.S. Supreme Court, and Lake Michigan water allocation by the State of Illinois.

Thus, the Water Plan Task Force has identified this topic as one of possible future importance, and has maintained a continuing discussion of the subject. However, it is not considered in the same category as the preceding issues, and along with meaningful public participation, it is considered a cross-cutting topic which is not assigned a priority position, but rather, will receive continuing attention throughout the planning process.

Conflicts which have arisen in the past have been resolved under existing laws and programs, or by public works which increased supplies and mitigated damages, by accommodation between the parties at issue, and in rare cases, by the courts.

This near absence of serious conflicts cannot necessarily be expected to continue. Water withdrawal in the State is now in the same order of magnitude as average supply. This can be expected to lead to conflicts during times of limited supplies. Uncertainties in our present laws and overlapping authorities are also recognized, and these may require attention.

It should be noted that regional advisory committees desire some permanent mechanisms for conflict resolution with local input.

Task Force Progress to Date

It is probably correct to say that little attention is currently being directed to methods of conflict resolution in water resources other than the consideration being given to it by the Water Plan Task Force. it is possible that under the issue "Competition for Water" discussed in this report, potential future conflicts will be identified.

In the course of its discussions, the Water Plan Task Force has developed the outline below for the identification and resolution of water conflicts. This is the framework which will remain visible to be utilized or amended as the Water Plan process continues.

A. Identification of Conflicts

1. Resource Conflicts

    a. local or regional

    b. statewide

    c. interstate

2. Policy and Program Conflicts

3. Organization Conflicts

4. Intergovernmental Conflicts

   (local, state, interstate, and federal)

B. Resolution of Conflicts

1. Consultation, compromise and arbitration

2. Interagency cooperation

   a. formal agreements

   b. subcabinet

3. The State Water Plan

4. Reorganization

5. Revision of substantive law, legal opinions, the courts

Recommendations for Policy and Programs

- That during the dynamic Water Plan process, those involved remain alert to possible future water resources conflicts, and consider whether adequate mechanisms are available for their resolution.

MEANINGFUL PUBLIC PARTICIPATION

Statement of the Problem

The Water Plan Task Force recognizes that the workings of government have become a much more open process than was the case when the earlier water plan "Water for Illinois, A Plan for Action" was published in 1967. That effort was conducted by an interagency task force of State agencies without any effort to involve public participation at any level. Although the 1967 effort was widely admired, few of its recommendations were implemented. This may reflect the fact that the public was little informed or involved. In any case, the report did not reflect a public groundswell for action, but was the work of informed, state government experts.

The political climate today is greatly changed, and not only does the public wish to be involved in decision making such as in the preparation of the State Water Plan, but without the widespread public involvement and support, little is likely to happen in the present fierce competition for public monies.

The Task Force resolved from the start not only to encourage public participation, but to utilize informed opinion to lead to a better Water Plan. The questions then become those of who are the various publics and their roles, to what extent are information and education required about the Water Plan, and to what extent will outside advice be sought in the actual plan preparation.

Task Force Progress to Date

Ongoing programs consist in part of those traditional or expanded public relations activities of the agencies involved in the Water Plan. In varying levels of intensity, these include outside advisory committees, and staff which prepare news releases, publish feature materials for public release, conduct short courses, and in other ways communicate with an interested constituency. These existing mechanisms have been employed to report upon Water Plan issues and progress. Current events such as floods and droughts which may be the subjects of interviews or reports are regularly placed in the context of a problem which the Task Force is addressing, and about which public interest and support is welcomed.

Beyond these individual agency activities, the Task Force has established and continued mechanisms for communicating with various publics. These include the Federal Agency Advisory Group, the Future Development Advisory Group, and the five Regional Advisory Committees, which are considered representative of agency, special interests, or regional expertise. Close communication is maintained with these groups through meetings and correspondence to seek both forward guidance and critical review of progress reports before they are given wider visibility to the public. These advisory groups and committees were used to the advantage and improvement of the Plan of Study and for guidance in preparation of the present report.

The current report was reviewed by the Advisory Groups and Regional Advisory Committees during November and December 1982. Numerous suggestions were incorporated into the report. Other comments for Task Force consideraion are summarized in Appendix B.

Wider audiences were sought in the fall of 1980 and early in 1982 under the auspices of the Water Resources Commission to review progress and seek public guidance for future directions. Three issues of the Water Plan newsletter "Illinois Water" have been distributed widely. Task Force members have also been available to speak to interest groups on request.

The Task Force will continue to capitalize on widespread attention being given to water in the media and through the national and state programs of such organizations as the Girl Scouts and the Women's Clubs. An outstanding example is a 5-part series on water resources problems appearing in Illinois Issues during 1982. These are authorized by James Kroke, Jr., with support from the Joyce Foundation.

With any needed adjustments which experience indicates, the ongoing activities outlined above will be continued in 1983. Increasing attention will be given to the advisory mechanisms and public presentations for the anticipated final report late in 1983. It is believed that the program of mutual reactions between the Task Force and the public will lead to implementation of the final report.

Recommendations for Policy and Programs

- That the established program of advisory groups, regional committees, and public hearings be continued with any needed adjustments.
- That the newsletter "Illinois Water" be continued and every appropriate effort for public attention be encouraged.

OPERATING ISSUES

Early in 1982 the Task Force identified a number of problems in water resources planning and operation which significantly affect the effectiveness of program administration. These issues frequently relate to on-going programs and procedures. They did not fit into the established mold of the emerging issues, and thus, they are being considered in a newly-created category which has been named "operating issues".

The seven operating issues relate to coordination and efficiency of State government and to the improvement of services to the public. Although different from the usual elements of state water resources planning, they are issues with which the Task Force is in a good position to deal.

Typically, each operating issue is being addressed by a workgroup of the Task Force. Final recommendations have not yet been reached, but brief progress reports on each operating issue follow.

Statement of the Problem

The collection and dissemination of streamflow, water quality, and suspended sediment data suffers from funding problems resulting in part from the fragmentation that exists in planning, operation, and funding of these important information networks. Further, most end users of the data take the data collection effort for granted and do not participate in planning or funding.

The stream gaging network is an example of State program fragmentation. Funding comes from three primary sources: The Illinois Department of Transportation, Division of Water Resources (DWR); the Illinois Department of Energy and Natural Resources, Water Survey Division (SWS); and the U.S. Army Corps of Engineers (COE). All of these funds are matched by a fourth agency, the U.S. Geological Survey (USGS), which coordinates and operates the network and publishes the data. Each of the three primary funding agencies (including four COE districts) sponsors the gages primarily for their own mission. Recent severe reductions in funding from all of these agencies has resulted in the initiation of network planning efforts.

The streamflow network further serves as the basis for the water quality

network operated by the Illinois Environmental Protection Agency (IEPA) and the suspended sediment network operated by the SWS. Since streamflow data are required by these networks, reductions or changes in the streamgaging network impacts directly upon them.

Costs of all network operations continue to increase and have resulted in attrition in the past few years prior to this year's major cuts. The water quality network has maintained over 200 sampling points, but sampling frequency is down to once in six weeks. The 50-station suspended sediment network established by the SWS has been cut in half and was nearly closed down completely in August.

Progress of Work to Date

The workgroup, with the SWS as lead, first met in July. Participating agencies are:

State Water Survey (SWS)
Division of Water Resources (DWR)
Illinois Environmental Protection Agency (IEPA)
Illinois Department of Agriculture (DOA)
Illinois Department of Conservation (DOC)

A background paper was issued at the first meeting identifying the following areas of exploration:

1. Evaluation of water quality network requirements

2. Evaluation of sediment network requirements
3. Incorporation of water quality and sediment needs into stream-gaging network requirements
4. Identification of complete data user community
5. Benefits to users
6. Broadening of base of support for networks
7. Use of private sector in committee structure
8. Interactions with COE and USGS
9. Technological advances
10. Methods of network integration

The workgroup has had the opportunity to review and comment on the reduced 1983 streamgaging network plans. Input from the workgroup on gages of special interest to their agencies allowed those gages to be retained. Potential impacts of reductions on the water quality network, the suspended sediment network, and other agency operations have been minimized by this process.

Each of the agencies is contributing to an interim report identifying the true stream data user community and the benefits to these users. This report is the first step in an effort to broaden the base of support for the networks.

Planning has begun between the SWS and DOA to use field personnel as suspended sediment observers. This would be accomplished on a volunteer basis by staff who are stationed near a suspended sediment sampling point. This program has potential for reducing the cost of network operations, particularly in remote portions of the state.

Recommended Actions

1. That upon completion of streamgaging network evaluations underway by the USGS and the SWS, all agencies should support and seek funding for the network through the State Water Plan Task Force.
2. That network evaluations be performed on both the water quality network and the suspended sediment network.
3. That the base of support for the networks be broadened by identification of users and user benefits.

STREAM INDEXING

Statement of the Problem

Water resource planning and management by State agencies in Illinois can be improved by common use of a uniform rivers and streams indexing system. Activities such as interagency review of stream-related permits and transfer of stream data would be facilitated by reference to a standard stream code. Even though several state agencies currently use, or are developing, their own stream coding or numbering systems, the lack of a single state stream indexing system often results in needless effort expended in uniquely identifying individual streams because, in Illinois, many streams have the same name, e.g., there are least 21 Indian Creeks. In addition, a uniform streams indexing system is an important step towards an eventual state water resource information system.

Progress of Work to Date

A workgroup of the State Water Plan Task Force, consisting of representatives of the Department of Conservation (DOC, lead agency), the Illinois Environmental Protection Agency (IEPA), The Department of Transportation, Division of Water Resources (DOWR), the State Water Survey (SWS), the Illinois Department of Agriculture (IDOA), and the Water Resources Center (WRC), was formed to pursue development of, and agreement on, a state stream indexing

system. Six separate systems were evaluated for use as a state stream indexing system--those currently in use by DOC, IEPA, SWS, and DOWR; USEPA's "Reach file" system; and a potential modification of the IEPA system.

Evaluation criteria considered were:

1. The state stream indexing system must provide a unique identifier for any Illinois stream,
2. The system should indicate hydrologic structure for most streams,
3. The system should be capable of expansion (adding smaller tributaries),
4. The system should be easily comprehensible to users, and
5. Implementation of the system should proceed as soon as possible and impact cooperating agencies as little as possible.

The workgroup has agreed on:

1. Preliminary state stream indexing system implementation procedures, including future preparation and distribution of stream index code books, with hydrologic listings and maps for most Illinois streams, to all State Water Plan agencies,
2. Preliminary system implementation "areas" (interagency permits and data transfer), and
3. A system manager (SWS).

Recommended Actions

1. Reach final agreement on:
   a. state stream indexing system,
   b. system implementation procedures,
   c. system implementation areas, and
   d. system implementation schedule.
2. Implement system based on above.

NATURAL RESOURCES INFORMATION SYSTEM

Statement of the Problem

Many of the major issues facing Illinois today focus on natural resources and the environment. These issues include sources of energy, management of waste, pollution of land, water, air, rainfall, changing weather and climate, protection of endangered species, siting of installations such as nuclear power stations, and various conflicts over uses of land and water. Making informed decisions on management of our natural resources can only come from the use of reliable data and information.

Fortunately Illinois has collected abundant data and information on its natural resources, through activities of the three Scientific Surveys to aid in making informed decisions on natural resources issues and management. No other state has supported for more than 100 years a comparable combination of resource fact finding and regular, intensive study by qualified researchers of such a broad range of biological, agricultural, mineral, hydrological, and atmospheric resources. In addition, there are many other natural resources data bases in other state agencies and in every state university. These data bases have been or are being developed to support regulatory and research needs relating to natural resources.

Increasing demands and the broad range of demands placed on the data files of the state agencies, including the Surveys and universities results in a growing data management and access problem that deprives the State of maximum benefits it could derive from its historical (and future) investment in data gathering.

In support of the data bases, a myriad of computer facilities is being acquired. Hardware costs are relatively low and many small computers exist to support project or task oriented research or regulatory activities. At all state universities, research relating to natural resources is also being performed on the main computers of each university. However, this situation lacks coordination, unification of data base formats, and a central focus or locale that knows where the data exists and how they may be procured. Furthermore, many of the key data bases are not finding their way into computerized systems and still reside in written files.

The State serves widely diverse requests from citizens, consultants, business and industry, municipalities, and most agencies of the federal government. The number served, the speed of the service, and the volume of the data accessed could be greatly enhanced if natural resource data bases were computerized, and either housed or recorded in a central facility. There is rapidly growing duplication, in government agencies and state universities, of resource data sets and computer facilities for managing natural resources data. Several other states have recently established similar centers and are putting Illinois at a disadvantage in competing for federal funds for resource management studies.

The state cannot now serve many requesters because of the backlog of requests and the time involved to serve them. There is also recognition that there are many potential customers for natural resources information who are not utilizing information but who could be served by a centralized information facility.

Progress of Work to Date

In June 1981 the three Scientific Surveys proposed to the Department of Energy and Natural Resources that a 9-month planning study be undertaken to provide an optimum design for an Illinois state center for management of data and information on natural resources (Illinois Natural Resources Information Center). The Surveys recognized that the design and implementation of such a center is complex and requested funding for an outside consulting agency experienced in design of scientific data and information and analysis systems.

The surveys proposed that a detailed planning study be conducted by Survey staff and the qualified consultant to meet the following objectives:

- Quantitative estimates of the Survey's requirements
- Qualitative estimates of other agency, public, and industry requirements
- Design of an optimum center
- Estimate of costs of alternative implementations
- Development of a Master Plan for implementation

Long-term goals are:

- To provide a state repository center to preserve, analyze, and distribute natural resources information deemed valuable to the State of Illinois and collected by the three Surveys, other governmental agencies, industry,

institutions, and groups or persons.

- To provide facilities and/or means to allow access of natural resource information by scientists, the public, other governmental agencies, and industry.
- To provide computational and manipulative support for research activities dealing with natural information (including statistical analysis, modeling, interactive operations and graphics).
- To provide scientists with means to process data, to update, to retrieve, manipulate, and disseminate in a quick, accurate, and efficient manner responses to inquiries for natural resource information.
- To provide and/or improve computerized files by standardizing formats, maintaining compatible equipment, improving collection techniques, and improving other systems associated with natural resource information.

The study was funded and after an exhaustive search, and a consultant was selected. The consultants have completed their study and are incorporating review comments by SWS staff into the final report. The final report should be ready by mid-October, 1982.

Parallel to the consultants' study was a document prepared by the Chiefs of the three Surveys entitled "Illinois Natural Resources Information Center." This document was provided to State Water Plan Task Force members earlier.

Recommended Actions

It is recommended that the State Water Plan Task Force add its support and provide input to the formation of an Illinois Natural Resources Information Center. Other recommendations will be made as members of the Task Force and Advisory Groups have an opportunity to review the Consultants report and interim planning now in progress.

WATER RESOURCES PERMIT COORDINATION

Statement of the Problem

The State Water Plan Task Force has identified the permitting process as an operating issue which needs review to develop recommendations in the areas of (1) expansion of the permit authority to activities not now covered, (2) involving agencies not now having permit authority in the permitting process and (3) improving the coordination among the agencies with existing permit authorities and programs.

Progress of Work to Date

A workgroup with the Environmental Protection Agency as lead, and supported by the Division of Water Resources, the Department of Conservation, and the Department of Agriculture was formulated to address the operating issue of permitting. The group identified fourteen topics which would be discussed in an effort to identify problems or areas which needed attention in the permitting process. The topics included:

1. Coal Mining
2. National Pollutant Discharge Elimination System (NPDES)
3. Pre-application Standards
4. Wetlands

5. Flood Plain Construction
6. Pre-construction or Planning Contacts with Applicants
7. Sand and Gravel Operations
8. Stream Crossings
9. Dredge and Spoil Disposal
10. Construction Erosion and Channelization
11. Hydropower
12. Landfills
13. Multi-Agency Field Investigations
14. Communications

The discussion of each of these topics was to explore the interest and the role of each of the agencies, and then to develop mechanisms or procedures to solve or work towards solving the problems specifically identified with each of the topics, while also basically addressing improvements of the existing regulatory procedures among the permit issuing agencies, the third issue stated above under statement of the problem.

The other two issues under statement of the problem were not addressed or discussed only briefly because of time constraints and the desire to explore existing authority for the most expedient problem resolution.

Recommended Actions

The discussions of the workgroup have resulted in the following action recommendations.

1. Continue the development of an inventory of wetlands in the State (DOC) for use by the agencies involved for use in present permit authority (DOWR) and possible outright purchase (DOC).

2. Continue downstate, the series of educational seminars for consultants and project sponsors on the explanation of the permitting functions and authorities augmented by an explanation of the concerns of these agencies plus the concerns of agencies which do not have permit authority but have an interest.

3. Organize a project review team composed of staff members of each of the concerned agencies to meet regularly and with a set agenda to discuss projects under review by one or more of the agencies.

4. Continue to develop an inventory of stream crossings both aerial and underground to aid other functions of the involved agencies. The existing permit processes may serve as a starting point.

5. Develop a series of seminars for the involved agencies' staffs to acquaint the reviewers with the concerns and regulatory authority of the other agencies.

6. Incorporate into the construction grants program for publicly owned sewage works, a review for the concerns of other state agencies (DOC and DOWR) at the facility planning stage.

7. Develop a series of seminars for people in the field (Federal, State and local agencies and private organizations) to cover the subjects of the State's role in permit authority and the State's concern with other environmental issues related to construction in wetland, floodways, floodplains, and sludge management.

8. Develop educational pamphlets on the subjects of erosion control, channelization and hydrologic modification emphasizing the permit authorities of the State. This effort could also be undertaken by an outside private organization with advice and counsel by the State.

9. Expand the EPA system of notification of landfill applications receipt to include DOC, DOA, DOWR.

10. Develop a policy by all agencies to prohibit the siting of landfills in floodplains.

11. Continue with the discussions of the following topics, to expand and explore further the possible options of program changes:

a. Lack of wetlands/riparian habitat protection authority

b. Dredge and spoil

c. Floodplain construction and channelization

d. Construction erosion control

e. Pre-application coordination

f. Stream crossings

g. Landfills - Prohibition of construction in floodplains and wetlands

h. Interagency communications

i. Multi-agency field investigations

Statement of the Problem

In developing the issues of the Illinois State Water Plan, the Task Force members have identified many areas of research that are needed to provide information for developing State water policies and for improving the management of the State's water resources. Recognizing that some water research is currently being conducted by faculty members of the State's colleges and universities and by personnel of most of the agencies represented on the Water Plan Task Force, it was decided that a report should be developed that identifies both the water research needs of the State Water Plan and the water research currently being conducted in the State. The purpose of the report will be to identify research that may already be addressing information needs of the Task Force and to stimulate research in the identified areas that are not being addressed.

Progress of Work to Date

The Water Resources Center (WRC), University of Illinois at Urbana-Champaign, was designated as the lead agency for this operating issue. On May 17, 1982, the WRC focused its annual meeting on the topic of "Short- and Long-Term Research Needs - Based Upon the Illinois State Water Planning Effort". Members of the Task Force presented their research needs in relation to the State planning effort. Other participants from state and federal agencies and

from universities around the State responded to the prepared presentations of the Task Force members. Other responses were received following this meeting. In October, the WRC will circulate a draft of a report summarizing the needs identified in response to the meeting for review by the Task Force.

In June, the WRC also sent researchers and agencies in Illinois a questionnaire asking them to report current water resources research projects that they are conducting or supporting. This information is being compiled by the WRC as an inventory of current water research. This inventory will be an update of an inventory compiled by the WRC in 1977.

In January 1983, the WRC will issue a report identifying research needs of the State Water Plan Task Force, inventorying current water research being conducted in Illinois, and identifying current research that may be relevant to the information needs of the Task Force.

Recommended Actions

State agencies, colleges, and universities should work closely to provide research and information for the management of the State's water resources.

1. Upon publication in January 1983, of the report on water planning research needs and current water resources research, agency personnel should contact researchers identified as conducting research relevant to their problem areas.

2. Researchers at Illinois colleges and universities should begin addressing the research needs identified by agencies of the State Water Plan Task Force.

3. State water resources planners and researchers should continue to meet annually to share information on water resources research and research needs.

4. In light of the current federal philosophy that water resources planning and management are state responsibilities, and in light of federal cutbacks in water research funds, the State of Illinois should fund a program of water research to address the problems and research needs of managing the water resources in Illinois.

RESERVOIR OPERATIONS

Statement of the Problem

Manmade surface water impoundments have long been recognized as valuable developments of Illinois water resources for such demands as water supply, recreation, and lake fisheries. These same impoundments have also created a unique set of management problems and demands on Illinois' natural resource agencies. The concerns of State Water Plan Task Force agencies for reservoir impoundment management problems such as low flow regulation, high flow regulation and associated flooding, multi-purpose reservoir operations, sedimentation, and water quality deterioration convinced the Water Plan Task Force to take up the specific issue of reservoir operations with the objective of improving the State's management activities and policies for existing and proposed reservoir developments.

Progress of Work to Date

The workgroup selected to address reservoir operations issues is comprised of representatives from the Division of Water Resources, Department of Conservation, Environmental Protection Agency, State Water Survey, and Department of Agriculture. The Division of Water Resources is the lead agency.

The Reservoir Operations workgroup has met three times since July of this year and has concentrated its efforts on defining the specific issues and concerns shared by the State agencies responsible for various aspects of reservoir management and operations.

The sub-issues selected by the workgroup for further definition and evaluation are as follows:

1) Low Flow Releases
2) Reservoir Water Quality Problems
3) Multi-Purpose Reservoir Development Policies
4) Management Opportunities for State-Federal Multi-Purpose Reservoirs
5) Agricultural Downstream Flooding
6) Reservoir Permit Coordination
7) Optimization of Reservoir Developments
8) Reservoir Sedimentation

These eight sub-issues are currently under review by the workgroup which is now in the process of developing draft policies and recommended actions relating to these sub-issues. An issue paper covering the workgroup's findings is scheduled for completion in January 1983.

Recommended Actions

The Reservoir Operations workgroup through the review of the eight sub-issues is now pursuing the following recommended actions.

1) Develop an interim instream flow standard and procedures for application.
2) Evaluate effectiveness of impoundment water quality management methods resulting from IEPA's Section 314 Lake Program.
3) Develop multi-purpose reservoir planning and operations policies for future impoundments.
4) Review current management opportunities for multi-purpose reservoirs.
5) Review impacts of water supply impoundments on flood duration and frequency.
6) Evaluate planned reservoir developments as a "multi-agency permit coordination review" issue.
7) Incorporate reservoir development optimization into DOWR's Statewide Water Supply Program.
8) Review current watershed programs for potential in mitigating reservoir sedimentation.

Statement of the Problem

The State Water Plan Task Force has identified stream and lake use management as an operating issue. The existing program authorities provide for hazard intervention, but do not generally respond to optimum uses of water for normal periods. In order to meet future demands for normal periods to respond to conflicting instream uses and competition for off stream demands effective management of lakes and streams is necessary.

Progress of Work to Date

A special task force with the Environmental Protection Agency as lead, with representatives from the Division of Water Resources, the Department of Conservation, the State Water Survey, and the Water Resources Center met to discuss this topic.

Of major interest to the group was the way the water quality standards revision process was being implemented and how it would interface with the development of the use designations for lake and stream management. The point was made at this time and has subsequently been confirmed that the water quality standards revision process would tailor acceptable aquatic characteristics to the stream and lake use designations. The process for the standards development will rely heavily upon the maintenance of the biological

integrity and, therefore, will establish appropriate parameter limitations to protect the biological community. The primary purpose of this Water Plan operating issue, then, is to designate stream uses to respond to conflicting instream uses and competition for off stream demands. Ongoing work elements being conducted by IEPA and IDOC to collect information for use designations are listed below:

- 314 Lake Priorities
- 208 Stream Use Inventories
- Intensive Basin Studies Data Collection
- Proposed Use Designation Maps
- Development of the Illinois Stream Information System

Recommended Actions

1. Develop use designations on a watershed basis using existing information on uses and water needs.
2. Determine what additional information other agencies can add to the ongoing basin studies.
3. Determine the role each agency will play in the ongoing basin studies and use designations and sign an interagency agreement for future work.

INFORMATION PAPERS

During the course of discussions in the advisory groups, regional committees, and public hearings, questions were frequently asked about navigation and hydropower. Although these two subjects did not meet the Task Force criteria of issues, they are clearly important and relate to other emerging and operating issues. Therefore, the Task Force decided that information papers should be prepared on these subjects for the primary use of the Task Force and State agencies.

The Division of Water Resources subsequently prepared and the Task Force reviewed and approved information papers on navigation and hydropower which are summarized in the sections which follow. Copies are available upon request from the Division of Water Resources.

INLAND WATERWAY NAVIGATION AND DEEP DRAFT NAVIGATION

The State of Illinois is clearly a leading agricultural producer, a leading manufacturer, and a leading exporter among all states. All three of these leadership positions depend heavily on an efficient inland and deep draft navigation system.

The major issues discussed regarding inland waterway navigation relate to the need to maintain the waterways as an efficient transportation system. One of these issues is the extensive lead time required for Federal project authorization. Another issue discussed was pointed out clearly in the Corps National Waterways Study which showed that projected national funding needs over the next 30 years amounts to about $30 billion while the Corps navigation budget which has been declining now amounts to only $850 million per year. Financing is, therefore, rapidly becoming the overriding problem on inland waterways.

The Upper Mississippi River System Master Plan also recognized the economic need for 13 new locks on the Mississippi and Illinois Waterways over the next 30 years. The first needed is a second lock at Alton, Illinois.

The information paper also discussed problems and solutions to such recurring issues as economic evaluation, unfair subsidy, excessive investment, environmental impacts, and habitat destruction.

In the summary of inland navigation paper, it is pointed out that Illinois will indeed suffer from the collapse of the Federal waterway program which has already started. Likewise, Illinois will benefit if the program can be restored and needed improvements resumed.

Issues relating to deep draft navigation relate mainly to the Great Lakes and St. Lawrence Seaway and the region's weakening industrial base.

It is clear that for the navigation sector, the only help that can be given is to further improve transport efficiency to lower transportation costs. This is very difficult since Great Lakes bulk cargo movement is already one of the most efficient systems in the world. Plus, scale economies in Seaway shipping are limited by the Seaway locks and channel depths.

Several other Great Lakes issues include system-wide marketing, season extension, container feeder service, lock congestion, and ship modernization.

Overall Illinois concerns in the Lakes and Seaway are addressed by direct involvement in the Great Lakes Commission. The Commission and its standing committees work closely with shippers, port authorities, and government agencies. The Commission has been quite effective in presenting a unified state view to Congress. The Commission also promotes a regional view on such distributional issues as Seaway financing, user charges, preference cargoes, and ship subsidies.

HYDROPOWER

Hydropower in Illinois grew with the rapid expansion of electrical power systems at the turn of the century but declined dramatically with the development of steam powered turbines and generators. There are now only eight operating hydropower plants in Illinois, three of which are located on the Mississippi River.

Interest in hydropower development was renewed along with other energy related concerns in the 1970's. The U.S. Department of Energy and the U.S. Army Corps of Engineers initiated a national re-assessment of hydropower in 1976. Congress also enhanced the financial feasibility of hydropower investments with special tax breaks and passage of the Public Utilities Regulatory Act (PURA). This renewed interest has led to a rush in Illinois by various interests to secure rights to existing dam sites for hydropower development.

Non-Federal development of hydropower is almost exclusively controlled by a Federal Act administered by the Federal Energy Regulatory Commission (FERC). This Act gives licensing preference to municipalities and so far 10 permits have been granted recently to Illinois municipalities.

The U.S. Army Corps of Engineers has showed a new interest in evaluating the feasibility of hydropower development at navigation dams and reservoirs under their control in Illinois. These Corps studies can be used as a basis for evaluating non-Federal proposals for hydropower development.

State concerns for hydropower development relate to water use, in that a large flow of water is required for each unit of electrical output, and also the lack of reaeration of waters discharged through turbines. Concerns are also discussed regarding State leasing and licensing which is an issue at a number of powerplant sites owned by the State of Illinois. Issues are also expressed regarding special problems which must be resolved to proceed with municipal hydropower development in conformance to the Illinois Municipal Code.

The paper concludes that the State must continue to work with FERC and municipalities to resolve various developmental issues and assure that projects are run-of-the-river and, therefore, utilize only surplus flows without impacting on navigation, water supply, and water quality.

APPENDIX A

AGENCIES WHICH PARTICIPATED DIRECTLY IN THE STATE WATER PLAN DEVELOPMENT DURING 1982

Office of the Governor

Bureau of the Budget

Water Resources Commission

University Water Resources Center

Division of Water Resources

Department of Agriculture

Department of Conservation

Department of Commerce and Community Affairs

Department of Mines and Minerals

Department of Public Health

Department of Energy and Natural Resources

Environmental Protection Agency

Emergency Services and Disaster Agency

Capital Development Board

APPENDIX B

SUMMARY OF REVIEW COMMENTS RECEIVED FROM FEDERAL AND FUTURE DEVELOPMENT ADVISORY GROUPS AND REGIONAL ADVISORY COMMITTEES

During November and December 1982, the Task Force's Federal and Future Development Advisory groups met in Springfield and the five regional advisory committees met in Chicago, DeKalb, Peoria, Collinsville, and Carbondale. These groups supplied the Task Force with a great deal of constructive commentary on its progress to date and on the issues that the Task Force is addressing. Some of the suggestions made by these groups were incorporated into the 1982 Progress Report. Other suggestions are being placed on the Task Force's 1983 agenda for consideration and guidance. The following is a summary of the comments and suggestions voiced at all seven meetings and of written comments and questionnaire responses received from individual committee members.

Eight specific recommendations were the subject of Task Force action at its January 20, 1983 meeting, and this is reported in a response at the end of the appendix.

Task Force Progress and Issue Priorities

There was general concern at several of the meetings and in several written responses that the Task Force's recommendations are too general in the 1982 Progress Report. This generality makes it difficult for committee members to constructively criticize or comment on recommended policies. Members implied that they hoped the next year's report would be much more specific.

Another general concern expressed at the Federal Advisory, Future Development, and DeKalb meetings was that priorities will need to be assigned to the various issues. Especially in times of limited funding, not all of the issues will receive money necessary to carry out recommended programs to reach Task Force goals. The example was given at DeKalb that if funds are limited, the Atmospheric Changes and Management issue is not very important compared to several of the other issues. It was recognized by these groups that it is difficult to assign priorities. In general, it was felt that the public must be involved in setting these priorities. At the Chicago NIPC meeting it was felt that it would be very difficult to set state priorities since priorities vary by region.

A question arose at the Future Development meeting that reflected several concerns expressed at several meetings last year - the nature of the Task Force's mission. It was felt that the Task Force is not developing a total water management system - it is only addressing a number of specific issues and is not dealing with ongoing programs. It was suggested that the final report be called "Task Force Report on Emerging Water Issues."

Erosion and Sediment Control

Some of the questionnaires received felt that progress has been inadequate on this issue. One person at DeKalb and several people in written comments expressed the belief that funds will need to be sought to subsidize farmers' erosion control efforts; a voluntary program without incentives will not be enough. One person believed that public education on the economic and environmental impacts of soil erosion should be carried out with special attention given to convincing nonfarm segments of society that erosion affects them also. Without support from urban legislators for erosion control funding such as tax incentives, funding will never be available. The Federal group discussed the fact that substantial economic savings can result from no-til and low-til cultivation methods and these savings should be part of an education program.

Several people at DeKalb stated that the issue does not address adequately the effects of erosion and sediment control on water quality.

Integration of Water Quality and Quantity Management

Various individual comments were raised about the annual review of interagency agreements. Some thought it was too frequent, others not frequent enough. One person felt that a board or commission might be created to guide the implementation of the quality/quantity management recommendations. One person from the Federal group suggested that recommendations on this issue be closely coordinated with the appropriate federal agencies to maximize state/federal resources and programs and to avoid conflicts with federal laws.

Protection of Underground Water

A minority of the questionnaires received felt that adequate progress on this issue had not been made. A great deal of discussion of a particular landfill site occurred at Peoria, and it was generally concluded that IEPA's public participation program should be evaluated for adequacy of time allowed for notices and for adequacy of public access to information used in siting decisions. Several persons expressed concern about the lack of monitoring of organics in groundwater and the need to economically detect and study the various mechanisms involved in the movement of organics through groundwater. Another concern was raised about the effects of deep coal mining on groundwater and aquifers in Franklin, Jefferson, and Hamilton counties. The unknown effects of heat pumps and abandoned wells on groundwater was also discussed. It was noted that the report has not addressed the problem of the adversely high groundwater levels of the American Bottoms.

It was suggested that highly toxic wastes should be phased out from land disposal facilities. It was pointed out that a number of legal questions need to be resolved in addressing the issue - the use of private wells for lawn sprinkling where public water supplies come from the same limited aquifer, the requirements for heat pumps, etc.

One person suggested the following strategy for the groundwater issue: (1) monitoring to detect degradation, (2) regulation of potential sources of pollution, (3) research to establish effective capacity of individual

aquifers, (4) effective dissemination of information on aquifer capacity and present use, and (5) development of allocation systems.

Water Conservation

A few of the questionnaires indicated that adequate progress has not been made on this issue. Several people expressed the belief that more emphasis should be placed on conservation. One professor who has conducted a national study on water conservation at the Southern meeting, expressed the opinion that the report concentrates too much on supply and not enough on demand. He suggested that more emphasis be given to water rate restructuring and that mechanisms should be developed to consider conservation for individual communities; conservation measures should be considered before supplies are enhanced through structural projects.

On the other hand, several people raised the concern that some communities use conservation to save funds now, but might have problems responding to a drought or other difficulties in the future when their systems are stressed.

One water company representative expressed concern that a concerted effort at water conservation could certainly affect revenue to any public water supply, which then creates other problems. Efforts at water conservation should not hide the issue that higher charges for water service may follow.

Others suggested that water conservation should be administered by one agency instead of several, the conservation issue should be combined with the drought contingency issue, a program on reuse of treated effluent should be established as part of the conservation effort, and funds for a conservation program should be found now.

Flood Damage Mitigation

Some of the questionnaires indicated that progress was not adequate on this issue. It was suggested that flood damage mitigation should include an emphasis on prevention, causes of floods deserve more attention, emphasis should be placed on stream maintenance and its affects on flood control, and there is a need to pursue full disclosure legislation on the flood hazard.

A representative from HUD recommended consideration of adoption of the federal standards (as enunciated in Executive Order 11988) for flood plain construction. These standards would replace the standard for floodproofing with that of "no practicable alternative" and would thereby better preserve beneficial flood plain values (see 43FR6030). He also recommended that communities and counties not participating in the National Flood Insurance Program should be encouraged to join.

A representative of the Corps of Engineers recommended that the emergency planning activities of the Corps should be included in this section of the report.

A representative of the Tri-County Port District recommended that the State of Illinois should look at the difference between Illinois' 0.1 foot flood control regulations compared to FEMA's and Missouri's 1.0 foot regulations. The difference in regulations could affect the development of Illinois port facilities in the St. Louis area.

Competition for Water

Several of the questionnaires indicated that progress was not adequate on this issue. It was suggested that instream flow is a competitive element that needs to be added to the recommendations.

At the Future Development and Carbondale meetings, it was suggested that the question of diversions be considered. Information should be gathered to determine whether various regions have enough water for inter- or intra-state diversions and what the effects of such diversions would be on a region. Mechanisms should be developed to resolve such questions.

At the Carbondale meeting, it was recommended that the state should consider policies for the development of regional water supplies such as Rend Lake. Such supplies would be more efficient than local supplies, might be of economic benefit to the state, and might be a factor in the competition for water issue. Because of the possible benefits to a region and the state as a whole, the state should consider the possibility of up-front financing.

The representative from HUD recommended that the problem of pumping deep sandstone aquifers in northeastern Illinois needs to be more fully addressed in the water plan.

Aquatic and Riparian Habitat

One person suggested that the state should adopt a strong stance in favor of wetland protection, especially in light of proposed development of hazardous waste landfills in wetlands bordering Lake Michigan.

Water-Based Recreation

It was suggested that reference be made to the report "Outdoor Recreation in Illinois: The 1982 Policy Plan." It was indicated that the second recommendation concerning registration and/or titling of all watercraft was somewhat confusing. A number of suggestions have been incorporated in the 1982 Progress Report.

Atmospheric Changes and Management Issues

A few of the questionnaires received indicated disagreement with the recommendation that the state should monitor climate trends and maintain a research program on the causes of climate change; or disagreed with the recommendation that the state should maintain a Climate Information Center or a Climate Detection and Assistance Board. (Several people at various meetings and in written comments said "no more boards and agencies; let existing agencies handle it."). A few individuals disagreed with the recommendation that the state should develop a policy for a rainfall enhancement capability or develop a major and definitive field experiment.

It was suggested by one person that weather modification has too many interstate ramifications to make regulations at the state level and interstate coordination and cooperation are needed instead. Another person suggested that weather modification should be omitted from the report. Another person suggested that weather modification should be of low priority with respect to funds.

In the discussions of assigning priorities to issues, the atmospheric issue was used as an example of issues that are low priority in comparison to some others.

Drought Contingency Planning

Some of the questionnaires received indicated disagreement with the establishment of a Climate Detection and Assistance Board.

Reference should be made in the report to where the publication "Community Guide Book" is available.

One person suggested that the drought contingency issue be consolidated with the water conservation issue.

A representative of the National Association of Water Companies reemphasized the importance of the relationship between water conservation and water rates and complimented the Task Force on the recommendation regarding rate changes by the Illinois Commerce Commission.

One person from DeKalb indicated the need for an evaluation of each community's need for fire protection under stressful conditions such as drought.

Water Use Law

Several of the questionnaires received indicated that adequate progress has not been made on this issue.

One person at the Chicago NIPC meeting expressed concern that last year's report was more clear and complete on the water use law issue and also seemed to more effectively relate the water use law issue to the eleven critical issues.

Several people at the Collinsville meeting concurred that there will have to be some sort of modified "right of appropriation" considered. Any allocation systems considered, though, should involve both the state and the region in the decision-making process.

Conflict Resolution

Several people indicated that they would like to see specific conflict resolution mechanisms developed. There is a need to consider the issue of interstate or intrastate diversions.

Public Participation

About one-third of the questionnaires indicated that the current level of public involvement in the water plan is not enough. Several people indicated that more public involvement will be necessary to develop constituencies to increase legislative funding for water issues and to implement programs and policies. This will require a greatly increased public awareness campaign. One person from the Future Development Group suggested that members of the advisory committees should be asked to take a more active role and could be given specific information gathering and information disseminating assignments. Information must also be disseminated through broader based channels of communication-radio talk shows, club meetings, schools, etc.

One person from southern Illinois asked that public meetings be held further south than Fairfield, which is 100 miles from the southern tip of Illinois. All areas of the state should have public meetings.

Based on the discussion of IEPA landfill siting procedures, the Peoria group recommended that the state agencies examine their public participation procedures, especially in relation to time allowed for gathering information for public hearings and public access to information available for decision making. The Future Development Group would like more interaction with the Task Force.

Stream Measurement

The Federal Advisory Group pointed out that reference to a "streamgaging network" was inappropriate and misleading. This has since been corrected. Stream measurement was identified as high priority at DeKalb.

Water Resources Permit Coordination

One person at the northern meeting suggested that local input should be sought on permit coordination and use regulations.

Water Resource Research

One person wrote that, while the Reagan administration is cutting funds for research, she hopes that the state will not follow this short-sighted example.

Stream and Lake Use Management

One person is uneasy with the use of "use designations." He suggests that this term may be a euphemism for saying we will allow some waterways to remain polluted. He thinks this violates the spirit of the 1972 Clean Water Act.

Another person does not see enough emphasis on a strong, properly financed stream maintenance program. State and federal agencies should operate such a program, but local agencies could contribute to the program in such areas as gaging and monitoring.

Hydropower

A representative from the League of Women Voters at DeKalb wrote that the paper on hydropower is negative and not up-to-date. The Corps may not be aware of the cost competitive technologies used by other countries. The League encourages an energy mix.

Navigation

A representative from the Tri-County Port District felt that the coverage of navigation was inadequate. There is a need to consider the (1) impact of user charges on river transportation, (2) need for port facilities, (3) need for state funding. See copy of report on Impact of Waterway User Fees on Illinois Agriculture.

A representative of the League of Women Voters in DeKalb wrote that the League feel the Illinois River should be a multiuse river. They are opposed to more construction of locks and dams. Dredging is known to be harmful to wetlands and marshes. They encourage user fees.

Local Consideration

Some of the questionnaires received indicated that the water plan does not give enough consideration to local concerns.

Several people expressed this concern; a person at the Chicago NIPC meeting and others suggested that local input and initiative into the plan was lacking. The southern committee expressed a desire for the consideration of state involvement in regional water supply development. Others suggested that local units of government might be involved in gaging and monitoring streams. One person at the northern meeting suggested that the state should be involved in providing funds and technical assistance for lake management.

The Implementation of the Water Plan

Many committee members expressed confusion and concern about how the plan would be implemented. With limited resources, how would issues be assigned priorities? It was suggested that greater public participation and education might be necessary. It was indicated that the means of implementation should be spelled out more in the Progress Report.

Task Force Response

The Task Force greatly appreciates the advisory group and regional committee members who read the 1982 draft report, attended the several meetings, and commented constructively.

Numerous suggestions have been incorporated into the 1982 report. Other suggestions, including those summarized in this appendix, are being considered by the Task Force and its work groups during 1983. Eight of the specific suggestions were considered at the January 20, 1983 meeting of the Task Force, and these actions are summarized as follows:

1. It was suggested that priorities be assigned to the various issues.

After discussion it was decided to retain the present order of listing the issues with the understanding that these are in an approximate order of state-wide priority. In the future 1983 report the recommendations within each issue will be placed in priority order.

2. Advisory comments pointed out that the Task Force statement of mission as the development of a total water management system that is socially acceptable and that operates within resource constraints is not consistent with the draft report which deals only with emerging issues.

The Task Force agreed with this observation, and while it has decided to retain the total water management system as a long-term mission, the title of the current report will be modified to "Illinois State Water Plan: Emerging Issues."

3. It was suggested that inadequate progress is being made in the area of erosion and sediment control, and that what is neeeded is adequate incentives to farmers and a major public education program, particularly in urban areas.

The Task Force has since been assured that within a few months specific program recommendations will be finalized, and that it would be premature to attempt to include these in the 1982 report.

4. It was suggested that the water conservation and drought contingency planning issues be combined.

The Task Force decided against this suggestion, for while the issues do have much in common, they are different from the point of view of the Water Plan. Water Conservation is primarily one of education while that of drought contingency planning is primarily one of procedures.

5. There was a minority expression of disagreement with weather and climate recommendations of the Progress Report. The Task Force appreciated the expression of views, but decided to maintain the recommended programs.

6. A suggestion had come from the Future Development Advisory Group that its members take a more active role in promoting the Water Plan. The Task Force expressed its appreciation for this desire but felt that it is premature until the final plan is completed at the end of 1983.

7. The Futures Group had also expressed a desire to meet with the Task Force. The Task Force thinks this is an excellent idea, and such a meeting is planned for June 1983.

8. There was an expressed concern with respect to attention to local interests, and in part also with the location of public hearings, which it was felt could have been distributed better in all parts of the State.

In response the Task Force notes that in addition to the semi-annual meetings of the Federal Agency and Future Development advisory groups and five regional advisory committees, public hearings have been held in the fall of 1980 and the spring of 1982. Those in 1980 were at Chicago, Peoria, DeKalb, Carbondale, and Edwardsville. Those early in 1982 were at Grayslake, Quincy, Fairfield, Carlyle, Decatur, LaSalle-Peru, and Freeport. Further public hearings are anticipated in 1983.