Report to the Legislature and Governor

on the

Nebraska State Water Planning and Review Process

Prepared by
Natural Resources Commission
and
Work Plan Development Committee

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Chapter 1. Introduction

The Natural Resources Commission, with the cooperation of other state and federal agencies, has developed a Policy Statement and Work Plan for implementing a redirected and accelerated Planning and Review Process (Process). This report sets forth the concepts of that process, explains the process, and summarizes the Work Plan. The Policy Statement has been transmitted separately to facilitate future refinement and expansion. An Executive Summary of this report suitable for public distribution will be prepared to provide an overview of the recommended Process and Work Plan.

The purpose of developing the Work Plan was to design a process for producing the information requested by the Legislature. Because of the limited time available and number of parties interested, this report includes only recommendations for legislative and administrative actions required to establish and manage the Process. It does not provide any recommendations on the policy issues specified by the Legislature in their request for the report. It defines the system for examining those issues, the means for securing the views of citizens and public officials on issues and alternatives, and the parties responsible for making those recommendations.

HISTORICAL BACKGROUND

In 1967, the Legislature directed that the Natural Resources Commission prepare a State Water Plan that would include "an evaluation of land and water resources" and "an examination of legal, social, and economic factors which are associated with resource development." It was originally intended that the State Water Plan provide a flexible framework for water and related land resource development. Since most water development at that time was planned, constructed, and financed by the federal government, the State Water Plan was an attempt to insure that federal development would be responsive to and consistent with state natural resource goals and objectives.

In 1971 the Commission, with the aid of other state and federal agencies, completed the Framework Study. Since 1971 the Commission has been involved in the preparation of comprehensive water resources plans and water quality management plans for Nebraska's 13 river basins. Comprehensive plans for the Big and Little Blue River Basins are currently being developed by the Commission.

Planning for the development and conservation of the state's water resources is also carried on by many federal, state, and local agencies. Federal agencies, such as the Bureau of Reclamation, Corps of Engineers, and Soil Conservation Service, have planned and constructed many of the major water resources developments in the state. Several state agencies have been involved in water resources planning directly and indirectly, and numerous subdivisions of state government have planned and developed projects and local public works. Irrigation Districts, Public Power and Irrigation Districts, and Natural Resources Districts, to name a few, have planned and developed many of the projects in the state.

Many activities related to water resources planning also have been conducted by federal, state, and local entities. Some regulate and manage water use activities. Many gather, interpret, and publish analyses of water data vital to water resources planning and management.

NEED FOR REDIRECTION

Since the design for the State Water Plan was originally conceived, major changes regarding water planning, preservation, and development have occurred. Public attitudes towards natural resources and the environment have undergone a radical change, and programs and policies of the federal government have changed accordingly. General interest in maintaining and protecting the quality of the environment, including dedication and use of water for recreation and general aesthetics, fish and wildlife protection, and water quality maintenance, has increased. Attitudes towards conventional development projects have also changed, exemplified by the interest in flood plain regulation instead of reservoirs and levees.

During this period of change in public attitudes, the use of groundwater for irrigation escalated rapidly in Nebraska. Center pivot irrigation development has increased greatly the rate of groundwater withdrawals, which in some parts of the state has resulted in notable groundwater level declines, conflicts among groundwater users, and conflicts between groundwater and surface water users. Use of water resources always has impacts on related lands, and the recent, rapid increase in water use has focused more attention on the land use problems associated with water resource development.

Finally, federal water resources policies are undergoing major changes. President Carter has proposed a new federal water policy which would (1) require states to assume greater financial responsibility in developing water projects, (2) emphasize conservation and efficient water use, and (3) emphasize environmental protection.

Attitudes of some people towards water resources planning have not changed since the State Water Plan was conceived, though efforts have been made to revise the concept. Many persons originally expected the State Water Plan to be a blueprint for total development of the state's water that would serve for generations. Some welcomed this prospect, others were opposed to it.

Experience has shown that published plans frequently become outdated rapidly, and some serve only to collect dust after a short time. Since 1969, those involved in the state's water planning activities have been attempting to correct the misconception that the State Water Plan would be a blueprint and present their work as a continuing process that would provide flexible guides for future decisions.

During the development of the Work Plan and the reviews of the draft of this report, it became apparent that for many persons the old blueprint concept of the State Water Plan had not changed, and probably never will change. To avoid handicapping the redirected Process with

the stigma attached to the term "Plan", the agencies involved in its development felt it was necessary to eliminate any reference to a State Water Plan and concentrate on the Process.

LEGISLATIVE DIRECTION

The complex, dynamic water situation has caused water policy to be a major topic of discussion in the Nebraska Legislature. In the 1978 Session this resulted in a request to the Natural Resources Commission to consult with state agencies and political subdivisions involved in water resources and devise a policy statement and work plan for redirecting and accelerating the State Water Plan, and to determine the results expected from preparation of that plan. Direction and guidance are provided in L. B. 957 and L. R. 300 as follows.

Legislative Bill 957

The Work Plan shall list the responsibilities of each agency in developing elements of the plan and shall be submitted to the Governor and Clerk of the Legislature on or before November 15, 1978. The Commission was authorized to establish one or more committees consisting of representatives of resource related organizations, locally elected officials, and the general public to participate in the development of the State Water Plan in the manner identified in the Work Plan. This bill states that the Legislature intends the State Water Plan to include the following:

1. A list of alternatives to resolve water and water related resources problems and related legislative and administrative policy problems;

2. An evaluation of the impacts of each alternative;

3. An evaluation of the methods for implementing the alternatives, including an estimate of the costs involved and the level and source of funding needed for each alternative; and

4. Based on the evaluation, a recommendation by the Commission of alternatives to consider for implementation.

Legislative Resolution 300

The Legislature provided additional direction in this resolution introduced by the Public Works Committee. The Legislature directed the Natural Resources Commission, Department of Water Resources, Department of Environmental Control, Game and Parks Commission, University of Nebraska - Lincoln Conservation and Survey Division and Water Resources Center, and State Office of Planning and Programming to cooperate in preparation of the Work Plan for redirecting and accelerating development of the State Water Plan and to place a high priority on the analysis of water policy issues. The resolution listed a number of policy

issues that should be considered. It also stated the Work Plan is to include an identification of the order in which policy issues should be analyzed to facilitate development of a State Water Policy Framework and the identification of information needs for those issues to be initially evaluated and the tentative schedule for acquiring and interpreting such information. It further directed that the Commission develop a review mechanism to consider potential impacts of alternative state and local water management policies, federal programs, and projects, and interstate and other water related developments.

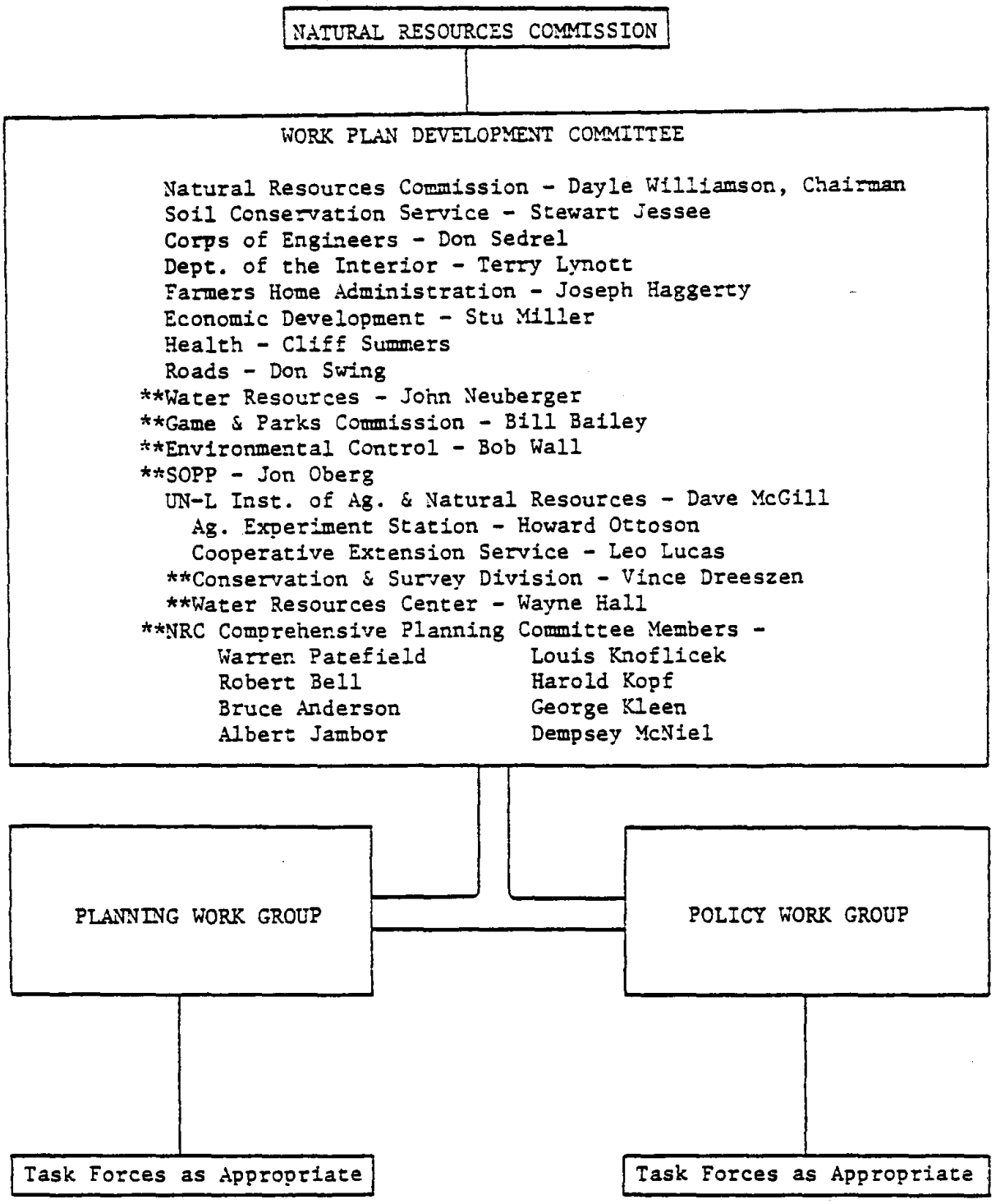
WORK PLAN DEVELOPMENT PROCEDURES

In response to the legislative directives, the Commission established a Work Plan Development Committee to cooperate in development of the Work Plan and the Policy Statement. The members of the committee are shown on Figure 1-1. All members of the State Water Advisory Team and the Commission's Comprehensive Planning Committee were included as members. Several state agencies not mentioned in the legislation, such as the Department of Health, and a number of federal agencies have made significant contributions to the State Water Plan in the past and their participation will be required in the future. Since the Work Plan is to list the responsibilities of each agency, it was necessary to insure their participation in development of the Work Plan.

The Work Plan Development Committee was divided into two groups. Under its delegation, the Policy Work Group developed a policy statement, a position paper, and a procedure for determining priorities for policy issues. Similarly, the Planning Work Group originated the design for the redirected planning process, developed designs of policy issue analyses, and devised work schedules and cost estimates for the Work Plan.

Participation of political subdivisions in development of the Work Plan was provided through review of a draft of this report. Since time was very limited and the number of political subdivisions with water related functions extremely large, the invitation for review was extended through the following statewide organizations: Nebraska Association of Resources Districts, Nebraska Association of County Officials, League of Municipalities, Nebraska State Irrigation Association, Nebraska Water Resources Association, Nebraska Rural Water Districts Association, and Nebraska Rural Electrification Association. Individuals representing themselves or other organizations were also provided review copies upon request.

Figure 1-1



**Agencies whose written approval of the Work Plan is required.

Chapter 2 - The Recommended State Water Planning and Review Process

A concept for a redirected State Water Planning and Review Process has been developed by those agencies directed by the Legislature to participate in preparation of the Work Plan. The concept combines considerations for a water policy framework; work plans; public participation; and a formal review mechanism. It takes into account the many requirements for water and related land resources planning and provides increased responsibilities and opportunities for improved water management by both state government and local resources entities in Nebraska.

This chapter presents a perspective of the recommended Planning and Review Process, which is illustrated in Figures 2-1 and 2-2. Details of the Process are covered in Chapters 3 through 8.

Shown at the top of Figure 2-1 because of its primary importance is the dual responsibility of the Legislature and Governor for general oversight, direction, and guidance of the Process. If guided properly, its products will permit them to best consider the options and make informed decisions.

In the figure, the Process is encompassed by the double arrow of coordination and management to show that it is a continuing, progressive effort over time, starting November 15, 1978. This overall coordination, administration, and management should be an interagency activity. Figure 2-2 provides added perspective for major components of this management function, and a detailed explanation is given in Chapter 3.

The management operations encompass five major activities as shown on Figure 2-1. Their individual objectives, work products, and components are highlighted in Figure 2-2.

Policy Issue Analyses and Recommendations are studies of legislative and administrative policy problems. They are given emphasis and a high priority in meeting needs of the Legislature and Governor.

State Initiated Problem Analyses and Area Planning activities are more flexible and extensive planning studies. They will replace the present Basin studies, with more emphasis on providing timely information to address urgent resource problems on a selective, priority basis.

Project and Program Reviews as recommended are not a new major activity, just better organization and formal inclusion of current reviews into the Process. Systematic utilization of the planning/management support base and related components from the Base Activities will contribute most to increased effectiveness.

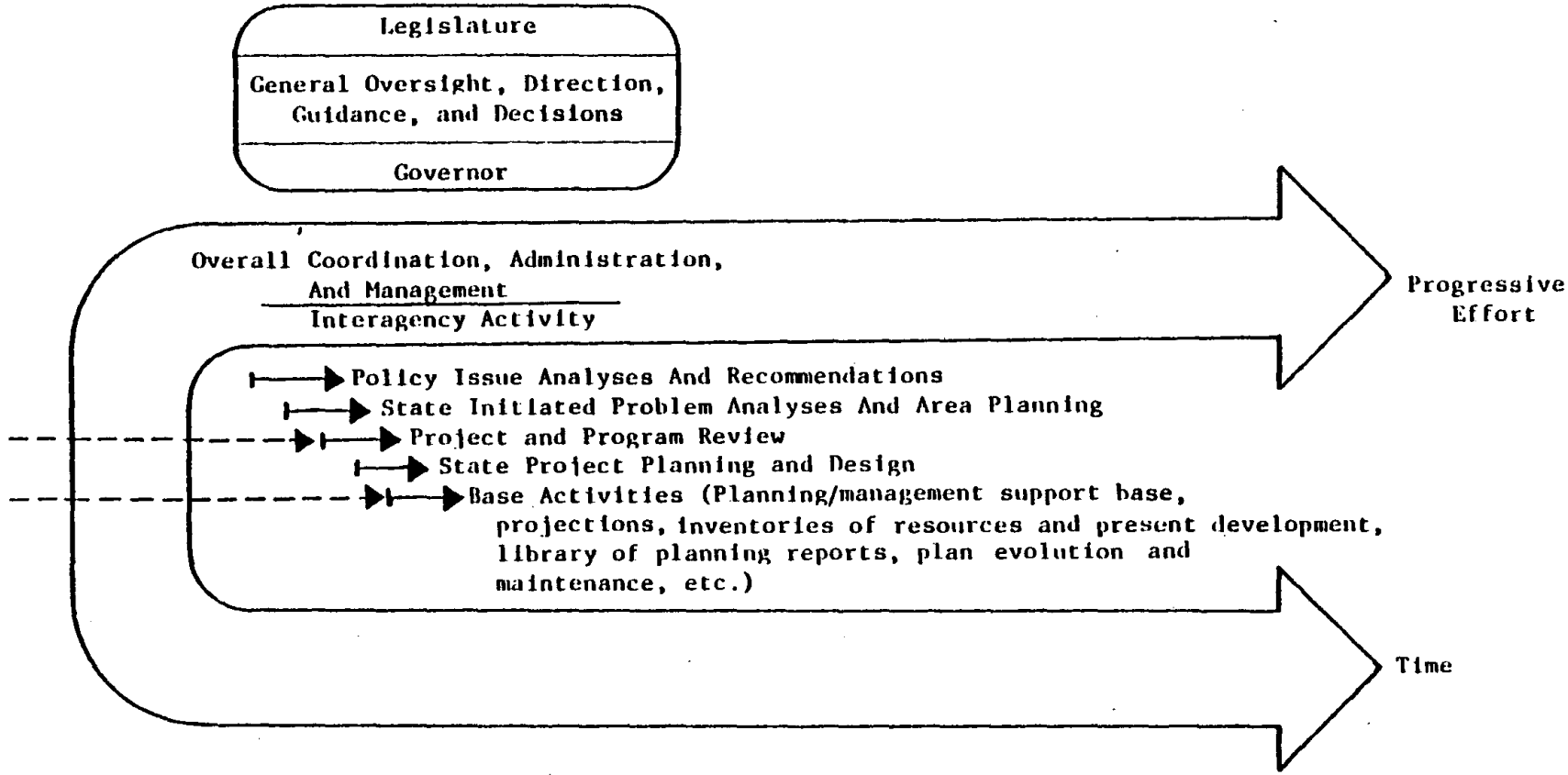
State Project Planning and Design represents a new initiative in the state's water resources planning program, though some related activity has taken place in the past under other programs. Its inclusion provides the final step in the Process, providing the required capability when and if needed.

Base Activities are intended to provide support for water planning and management generally and for the other four major activities particularly. Primarily, this support will be provided by an authoritative, current, readily accessible information base containing both basic data and current plans.

All phases in the planning and management process require periodic reconsideration to accommodate changes in policy; state, regional, and national developments; shifts in priorities for critical activities, and other variables. Flexibility in the planning/management support base will be provided by the development of an open, loose-leaf, working file rather than publications that quickly become outdated; an emphasis on maintaining concepts of resource management rather than writing rigid plans; and gradual, continual evolution and maintenance of a record of a flexible process, not publication of a cast-in-bronze State Water Plan.

To the extent possible, the Process was designed to be compatible with, and take advantage of, other state and federal planning efforts affecting Nebraska's resources. Not only cooperative programs led by the Natural Resources Commission such as water quality planning (Sections 208 and 303(e) water quality management plans), but many associated activities have been considered. These include planning efforts like the Missouri River Basin Commission's Comprehensive Coordinated Joint Plan subregional analyses, and the Fish and Wildlife Service study of the potential for a wildlife refuge on the Platte River. They also include many planning-related activities, such as research funded by the Office of Water Resources Technology, Old West Regional Commission, and UNL Water Resources Center; assignment of state priorities to water program and project proposals for the Missouri River Basin Commission; and data collection by many state and federal agencies. In some instances, these types of efforts can be programmed directly into the major activities of the Process, as shown in Chapter 5. In other cases, associated efforts or their results will be recognized and incorporated into general activities, such as Base Activities.

Figure 2-1 - NEBRASKA STATE WATER PLANNING AND REVIEW PROCESS



Redirection / Acceleration

Nov. 15, 1978

Figure 2.2 - NEBRASKA STATE WATER PLANNING AND REVIEW PROCESS

Coordination, Administration, And Management

Interagency Group

Objectives/Components

Levels of activity - legislative/Executive, Interagency, and individual agency

Legislature/Governor - General oversight, direction, guidance, and decisions - basic, annually, and operationally

Cooperative effort - designated state agency administrators

Involves many reactive operations, but also Group initiatives appropriate under general delegations

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Maintain legislature/Governor/Agency intercommunication

Utilize Public Advisory Group advice/consultation

Maintain state agency interactions, internally and with local resource entities/federal agencies-ongoing resource programs and proposals

Maintain contact with state's representative for actions of state/federal groups on policies/issues affecting region/state

Develop/recommend coordinated work plans/priorities/impacts for interagency planning/review activities, including agency budget/personnel needs to implement Process. Maintain perspective for all needs/opportunities and recommend funding from state/federal/other sources.

Generally oversee interagency work, follow progress, and modify agency assignments/work schedules. Make annual progress report to legislature/Governor, with observations on results of water Planning/Review Process.

Provide coordinated information/advice to state officials as appropriate to functions delegated to Group

Act on reports/plans/recommendations to be forwarded to legislature/Governor/Agencies; consider merits/demerits of program/project proposals and incorporate approved proposals in State Water Plan

Policy Issue Analyses/Recommendations
Special Reports to legislature/Governor

Interagency Group

Objectives/Components

Responses to legislature's requests

Responses to Governor's requests

Self initiated interagency analyses under a general delegation therefor

Produce special analyses/reports

NRD and other resource entity and general public involvement

Assemble/fill out/analyze data

Assess applicable non Nebraska experience

Develop alternative options and impact analyses

Make recommendations - current action, or added study

State Initiated Problem Analyses And Area Planning
Report & Findings to legislature/Governor/Local Interests

Interagency Group

Objectives/Components

Special studies to cope with impending major problems

Progressive area planning as found necessary

Focused primarily on critical problems or areas in order of priority

Custom designed to respond to problems not project proposals

Operate under state leadership (lead agency), with appropriate agency/water interest participation

Specific authorization by legislature & Executive support

Analyze present emerging resource problems by areas in the state; prioritize

Assess data needs and desirable study detail

Identify data gaps, means, and costs of overcoming these

Identify lead and other participating agencies/others

Accomplish work per legislature's priorities, or by interagency agreement under legislature approved continuing program/funding

Project And Program Review
Appropriate Response to Referrals

Interagency Group

Objectives/Components

Operate under general delegations

Relate all reviews to planning base

Actions on requests for state water development funding

Actions on permit applications - problem cases

Respond to A-95 referrals (federal agency proposals)

Assess appropriate state resource proposals

Assess NRD/other resource entity proposals

Coordinate reviews and manage public involvement

Assure timeliness of responses, set priorities

Call meetings - Advisory or approval councils

Refer proposals to appropriate agencies/resource entities for reactions

Formulate critical issue and special problem implications in seeking pointed responses

Develop draft of state responses to resource proposals

Develop state position statements/recommendations for use by Governor, legislature, Delegated Agency

Determine suitability of proposal for inclusion in State Water Plan

General oversight - NRD master and 6-year plans

State Project Planning And Design
Preliminary/Feasibility Plans; Final Designs

Lead/Interagency Task Force/Contractor

Objectives/Components

Response to requests of state officials/district/county/municipality - technical assistance

Potential later NRD projects

State participation in proposed federal projects

Cooperative projects with districts

State agency resource projects

Determine applicable goals - state planning

Establish project objectives/criteria, with public input

Draw upon Base Activities for required data

Determine gaps and obtain essential data

Conduct technical studies and design

Review and approve plans and designs as required for funding/implementation

Prepare and submit reports to requestors and involved state agencies

Base Activities
General Support; Interactions: Plan Evolution/Maintenance

Interagency Group

Objectives/Components

Develop general support base for use by state agencies and other water interests

Assemble data - available sources

Assess and seek ways of filling out data gaps

Update data base to accomodate modified/new data

Operate data bank; also computerized analytical systems

Maintain library of planning reports and techniques

Maintain base data as loose leaf, open file, by area

Planning/Management Support Base by Area

- Socio-economic data
- Inventory of resources, present development, and institutional structure
- Develop resource goals and objectives
- Projections - present and future problems/needs
- Concepts - potential resource preservation/development

Plan Evolution and Maintenance

- Generally monitor ongoing/pending resource activities as programmed/budgeted - in or affecting Nebraska
- Develop standing listing/annual updating of state "approved" proposals to respond to resource problems/needs; in-house listing of "pending" proposals not yet approved. Publish annually.
- Prioritization of federal/state proposals for resource activity - 5 year projections - published annually

(All phases in Process require periodic reconsideration to accommodate changes in state policy, internal or out-of-state developments, shifts in priorities for critical activities, etc.)

Chapter 3. Alternatives and Recommendations for Management and Organization

Formulating the major activities of the State Water Planning and Review Process outlined in Chapter 2 is only the first step in its development and implementation. The functions of the Process and its resulting work products must be resolved and the procedures and organization required to produce adequate results must be determined before the Process can be clearly and completely defined.

The purpose of this chapter is to examine the management of the current planning process, discuss some alternatives for future management, and present recommendations. Discussion and recommendations are also presented in regard to the current and future functions of the Process.

MANAGEMENT ACTIVITIES

The activities required to manage the Planning and Review Process can be fairly well defined at this time, but they will be subject to minor variations depending on the institutional structure. These activities generally occur at four levels: legislative and executive, interagency, individual agency, and public participation. Two principal types of activities are required from these groups: (1) decision-making and (2) coordination and supervision.

Decisions will be required on many different types of matters. The following is only a partial list:

1. The passage and signing of recommended legislation,
2. The contents of recommendations to the Governor and the Legislature,
3. The official state endorsement of proposed federal projects and their inclusion in the list of approved proposals,
4. Studies needed for the Planning and Review Process,
5. Agencies that will participate in Process activities,
6. Funding for Process activities,
7. The contents of recommendations to state agencies on regulatory actions or other activities.

The final list of decisions to be made will be determined by the decisions on the appropriate role of the Process.

Considerable coordination and supervision will be required for successful planning with so many agencies and activities involved in the Process. Project and Program Reviews will require coordination of agency activities to secure and resolve comments from each agency and to schedule and document meetings and their results. Leading the annual budgeting process and development of the Plan of Work will also require considerable coordination. Finally, supervision of the work, scattered as it must be among many agencies, will be critical to the success of the planning effort. One person or entity must be responsible for keeping all the parts together, on the same track, at the same speed, and have the ability to correct errant efforts, or the schedule and the entire planning effort could be delayed so much as to make it ineffective.

Current Management Activities

Responsibilities for decision-making in planning and implementing plans are not clearly defined at this time, and there are questions relating to what kinds of decisions are required at various levels.

To date, management of the state water planning process has been assumed to be primarily the responsibility of the Natural Resources Commission. The Commission provided coordination of the activities of all participating agencies in the development of the Framework Study and its appendices in the late 1960's and early 1970's.

The clarity of this portion of the management process may, however, be the result of a too narrowly defined state water planning process. Several other state agencies and university divisions are engaged in water planning, including the Conservation and Survey Division, the Game and Parks Commission, and the Department of Environmental Control. These activities could logically be incorporated into the Process.

In addition, another aspect of the management process has not been clarified. The roles of the Legislature and the Governor in the planning process have not been defined and past approvals of the work products have been inconsistent.

Future Management Activities

FUTURE LEGISLATIVE AND EXECUTIVE ACTIVITIES

If the planning process is to be successful, the Governor and the Legislature must provide direction, guidance, and decisions. Advice and direction on the course of the Planning and Review Process should be provided throughout the year, but it must be given annually during the preparation of the Plan of Work. At that time, direction on all major activities and responses to reports and recommendations will be needed to direct the Process into different channels or stop further study if preliminary information satisfies all needs. At other times of the year, guidance may be required on the course of specific Policy Issue Analyses or other studies or on the need for Project and Program Reviews.

When legislative or executive action is required, the Legislature and the Governor must also assume the responsibility for the timely approval (or disapproval) of the reports, recommendations, and plans. They must also respond with one more expression of approval or disapproval. Funding for the work outlined in the annual Plan of Work will be included in annual budgets. Action on both the Plan of Work and budgets will indicate the level of approval of planning proposals.

FUTURE INTERAGENCY ACTIVITIES

The Planning and Review Process must be a cooperative effort between state agencies, with the help of federal agencies, local districts and governments, and the general public. The state agencies spending

state funds must assume the responsibility for timely completion of the work, so they must take an active part in the management of the Process. They must produce reports, recommendations, and plans to be forwarded to the Governor and the Legislature. They must develop the annual Plan of Work that specifies the activities of each agency in the Process and coordinated budgets for all. They must oversee the work of all agencies as it progresses, and recommend changes in assignments or schedules if necessary. Finally, they must meet on short notice and provide information and advice to the appropriate state officials when the need arises.

FUTURE AGENCY ACTIVITIES

Some agency must be given the responsibility for managing the day-to-day affairs of the Process, regardless of the type of institutional structure established to maintain the cooperative efforts. One agency must provide the administrative capability to keep the Process functioning and the staff to maintain the support services. This agency must receive requests for reviews, analyses, and plans; screen them; and present them to the management body in proper form for action. It must prepare the final reports on actions and approvals. It must also lead in the preparation of budgets and work schedules for the annual Plan of Work, supervise the work of special task forces when they are appointed, and monitor the work activities in the work schedule.

Other agencies must participate in the development of work schedules and budgets for the annual Plan of Work, carry out the scheduled work activities, participate in advisory meetings, and initiate requests for reviews, analyses, and planning as they see a need arise.

FUTURE PUBLIC PARTICIPATION ACTIVITIES

The success of the Planning and Review Process could depend on the development of a meaningful structure for receipt of public input. Public meetings, although playing an important function which cannot be satisfied in other ways, will not provide sufficient public input at the right time and on the right subjects. At least one public advisory group will be needed which can provide timely input on a wide range of subjects from all viewpoints. Such a group must be large enough to include representation from a variety of water interests and yet small enough to be an active and effective working group.

Alternative Mangement Structures

Many alternative institutional structures for managing the Process would work, but some would be more efficient than others. The important question is: Who will have final authority and responsibility for making each of the decisions required in carrying out the Process? Basically, there are two types of entities that could assume this responsibility: a single agency, or an interagency committee. Both types have some advantages and disadvantages, and there are possible variations, or alternatives within each type. In addition it would be possible to delegate some decisions to an interagency group and others to a single agency.

SINGLE-AGENCY MANAGEMENT

No single agency would be able to carry out the recommended Planning and Review Process alone. The cooperation of a number of agencies would be required. One agency could, however, hold the authority and responsibility to control the Process with the advice of an interagency advisory committee.

This type of structure would have the advantage of having responsibility rest with one decision-maker whom the Legislature and the Governor could hold accountable. It would also be advantageous in that the agency responsible could employ and direct the administrative and technical staff required to maintain the daily workings of the Process. It would have a serious drawback in that the management agency's authority over the cooperating agencies would be severely limited or nonexistent. If any agency felt that its personnel and funds should be diverted from the Planning and Review Process to what it considered to be higher-priority programs, the management agency would have no recourse. If the cooperating agency happened to be developing critical data for the Process, the whole effort might be crippled.

There are several possibilities for single-agency management structure. First, one of two existing agencies could specifically be designated to assume the responsibility. Second, a new agency could be created by reorganization of existing agencies to improve not only the planning process but the overall water management process as well.

The Natural Resources Commission currently has the statutory authority to do the required planning. The Commission also has several years of experience in the field, and it already has a state and federal agency advisory committee.

The State Office of Planning and Programming could also assume the management role. The SOPP has the statutory authority to remove any planning program from the assigned agency if that agency is not doing the job. It also has the advantage of the statutory authority to require a state agency to use personnel and funds to aid in a planning task if the situation requires. Being a code agency and not tied to any specific interest or charge may also be advantages not enjoyed by the Commission.

The Legislature and the Governor could create a managing agency by reorganization of state agencies. A number of water resources planning related functions are performed by University offices so it would be difficult to put all functions into one department, though a large majority could be merged. The complexity of this alternative makes it impossible to explore it fully at this time. An outside consultant would probably be required for an adequate analysis of such a structure.

MANAGEMENT BY AN INTERAGENCY GROUP

An interagency committee could manage the Planning and Review Process if appropriate action were taken to establish one and to assign the responsibility and authority to it. This committee could perform the same management and approval functions as a single agency.

This type of organization has one serious disadvantage---the committee structure. At times, it may be impossible to reach a decision, especially if the committee must act by consensus. This problem can be partially alleviated by making a simple majority sufficient for a decision. Even provisions for filing minority reports may not ensure continued cooperation on a disputed point, however. This could lead to another type of non-decision. Instead of forcing an open split, the committee might decide to delay a decision, and one of the easiest ways would be to order more studies, causing additional expenditure of time and funds.

The considerable advantage of this structure is that all agencies whose inputs are vital to the Planning and Review Process would have a voice in the decisions that control those inputs. Many conflicts could be avoided by full discussion and understanding of every issue, and simply the ability to voice an objection in a dissenting vote may be sufficient to maintain full cooperation in the Process.

Another advantage would be in the development of the Plan of Work. If the committee has some responsibility to the Governor and the Legislature for the planning process and the development of the work items, the members will have more incentive to budget carefully and perform scheduled work.

RECOMMENDATIONS ON THE MANAGEMENT STRUCTURE

The following recommendations significantly modify the existing institutional structure for management of the Process. Implementation of these recommendations is essential to efficient performance of some of the functions of the Process.

1. The Legislature should establish and define the functions of an Interagency Water Coordinating Committee (IWCC). This committee should consist of the chief administrators of at least the following entities or their representatives: (1) Natural Resources Commission, (2) Department of Health, (3) Department of Water Resources, (4) Game and Parks Commission, (5) Department of Environmental Control, (6) State Office of Planning and Programming, (7) Conservation and Survey Division - UNL, and (8) Water Resources Center - UNL. Other possible members of the committee include representatives from the Departments of Agriculture, Economic Development, Roads, and Energy. Constitutional problems may prevent statutory provisions for membership by the University directors. (See Neeman vs. Natural Resources Commission, 191 Nebr. 672 (1974). These problems might be avoided by specifying that the Board of Regents is to appoint two representatives of the Institute of Agriculture and Natural Resources and urging formally or informally that those appointments be of the individuals holding the above positions.

The IWCC should not have authority over individual agency activities or operations. Its responsibilities should be limited to those essential for maintaining a coordinated planning effort and for enhancing the acceptability of the results of that effort. These responsibilities should include:

(1) Developing the annual Plan of Work;
(2) Coordinating on an annual basis for submission to the Legislature and the Governor those portions of the proposed budgets of all member agencies which would be devoted to the Process, including any funds which should be appropriated in lump sum to allow the flexibility of contractual arrangements for some aspects of the Process;
(3) Recommending contractual arrangements for those work elements of the Process which are to be accomplished by individual agencies from lump sum appropriations available for utilization in that manner;
(4) Approving the format and content of reports to the Legislature and/or the Governor regarding the analysis of legislative or administrative policy issues and the results of reviews; and
(5) Perform such other responsibilities as are directed by the Legislature or the Governor.

A majority of the members should be required to take action on any matters which require formal action by the group. Chairmanship of the committee should be rotated among the agencies.

2. The agencies involved in the Planning and Review Process should establish by interagency agreement an interim Interagency Water Coordinating Committee to provide the transition in management until legislative action is taken. Many details of the organizational structure, procedures, and responsibilities for implementing the Process that have not yet been clarified need to be resolved. These must be discussed, and perhaps given a trial, in the interim before the legislation can become effective.

3. The Natural Resources Commission should continue to be the lead agency for managing the planning activities related to the Process. The Commission, with assistance when appropriate from the Interagency Water Coordinating Committee, should be responsible for coordinating on a day-to-day basis the activities of all agencies directed at the Planning and Review Process. The Commission should be the agency to which lump sum appropriations are made for contractual allocation to other agencies for work as needed during the fiscal year.

4. The Legislature should establish and define the functions of a Public Advisory Board to advise and assist state agencies in carrying out the Planning and Review Process. The legislation should provide for 11 members on the board to be appointed by the Governor as follows:

(1) One member from each of three lists submitted by the Legislature. Each list shall contain the names of at least three individuals;
(2) Two members from each of the state's three congressional districts;
(3) Two members from the citizenry of the state at large from a list provided by the Interagency Water Coordinating Committee;
(4) Not more than one member should be appointed from any one river basin as defined in section 2-1504, R.R.S 1943.

Provision should be made in the legislation for payment of a per diem in the amount of twenty dollars for each day actually and necessarily spent in the performance of the duties of the board. Board members should also be reimbursed for actual and necessary expenses. The functions of the board should be to advise and assist in: (1) identifying additional legislative and administrative policy issues; (2) developing and reviewing alternative solutions for legislative and administrative policy problems, including impact assessment; (3) recommending the types of problems needing analysis as part of the State Initiated Problem Analysis activity and where such problems are located or likely to be located; (4) disseminating information and materials generated by the planning process to interest groups they represent and the public generally; and (5) determining the conditions under which and the methods by which additional public input is to be obtained. The board should also be authorized to perform such other roles as are identified by the Interagency Water Coordinating Committee.

FUNCTIONS OF THE PROCESS AND ITS WORK PRODUCTS

Current Functions

The unanimously agreed upon but overly generalized rationale which has been given for state water planning is to provide for the most beneficial use to the people of the state of the state's water and related resources. However, the specific methods by which this effect should be achieved have never been resolved.

In preparing this report, the agencies involved attempted to determine the specific methods by which the planning process could and should perform that role. Agreement could not be reached and further study of that question will continue in the future in a general sense and as individual policy issues are analyzed.

It was agreed, however, that the functions currently assigned to the State Water Plan cannot be carried out at this time because it is not clear what the official contents of the State Water Plan are, or what the proper procedures are for implementing it.

One of the reasons it is not possible to identify the contents of the State Water Plan is the absence of a designated institutional structure and procedure for making the decision to approve or reject recommended plans. Some of the planning documents have been approved by the Commission alone while others have been adopted, recognized, or approved in whole or in part by the Legislature. Virtually none of these approvals has gone the next step beyond the approval itself to indicate: "and is hereby incorporated as a part of the Nebraska State Water Plan".

This inconsistency in approvals, combined with the lack of definition or direction in the statutes as to what should be in such a "Plan", and other problems, make implementation of existing regulatory roles for the State Water Plan extremely difficult, if not impossible. The recommendations which follow were formulated in recognition of those problems.

Recommendations

1. The State Water Planning and Review Process should not result in the publication of a rigid State Water Plan, the use of the term "State Water Plan" should be discontinued, and all statutory references to the implementation of the "State Water Plan" for determining compliance of proposed plans and projects should be repealed. Legislative action is needed repealing the existing references in Nebraska statutes to the term "State Water Plan". Included are section 2-3229 relating to Natural Resources Districts works, plans, facilities, and programs and section 2-3271, relating to Resources Development Fund projects and programs.

2. The Process should result in the preparation and frequent updating of a planning/management support base, reports, and other documents necessary for fulfilling the roles to be performed by the Process. The Planning and Review Process recommended in this report is designed to produce reports, recommendations, plans, and designs if requested. However, the types of reports and documents required cannot be determined finally until the ultimate roles of the Process are established.

3. Additional roles for the Planning and Review Process and the format and content of the products of the Process should be studied further and recommendations should be made to the Legislature at a future date.

Chapter 4. Policy Issue Analyses and Recommendations

It has been apparent since the state water planning process was first initiated that the Legislature and state agency administrators need information and advice on many complex legal and technical issues. Policy Issue Analyses are designed to respond to the need for analysis of emerging problems as well as current issues.

CURRENT ACTIVITY

Analysis of policy issues is not a new concept in the state water planning process. The Report on the Framework Study, published in 1971 states:

"The last of the four sections (of the originally designed process) is a series of specialized studies of some of the most important issues confronting resource development in Nebraska. This section of the plan will fulfill the Legislature's request by combining physical, legal, economic, and social considerations into recommendations for appropriate action on the complex legislative and administrative problems of water and water related resources development faced by the Legislature, the Governor, and various subdivisions of state government. Topics for study were selected by the Commission in consultation with the Legislative Council Study Committees."

This activity resulted in the preparation and transmittal to the Legislature of four special studies conducted by the Commission and cooperating agencies. The first Special Recommendation, Flood Prevention and Damage Reduction, was partially implemented by enactment of the Nebraska Flood Plain Management Act. The second, Modernization of Resource District Legislation, was implemented by creation of the state's Natural Resources Districts. A third, Flood Warning and Community Action, presented information on means to reduce flood losses by advance planning for prompt, effective flood warning and responsive community action, but has not resulted in any action by the Legislature. Establishment of the Resources Development Fund resulted from the fourth and last Special Recommendation, Funding Nebraska's Future Natural Resources Development, which was presented to the Legislature in 1972.

CONCEPTS OF POLICY ISSUE ANALYSES AND RECOMMENDATIONS

Need For a Continuing Process

The lack of a formal procedure for discussing and initiating new studies created a gap in communications which has resulted in no formal policy issue analyses being conducted by the Commission since 1972. Development of the state's water resources is continually progressing, and the needs and uses for the state's water are constantly changing, so old policies must continually be examined and revised and new policies must be considered and adopted to keep up with the needs of the people. A number of the policy issues identified in the original design of the planning process remain to be addressed. Several of these issues were again set forth in Legislative Resolution 300 as were some not previously identified.

If the mistakes of the past are to be avoided, some institutional structure must be developed that will provide the means for a continuing dialogue between the Planning and Review Process managers and the Legislature and the Governor. State officers and legislators must regularly inform the planning managers of the policy issues confronting them, and the Process management must report regularly to those officers and legislators in order to receive continuing guidance on study proposals and preliminary results as they are produced. Substantially more emphasis will be placed on this activity than in the immediate past and the continuing dialogue necessary to make this an ongoing function of the planning process is included as an integral part of this activity. Those responsible for studies will analyze the problems, research the potential solutions, and develop a number of alternatives and recommendations for state action. The Governor and the Legislature will have the opportunity to review them at several stages and eliminate at an early date those alternatives which are least acceptable.

Products of the Policy Issue Analyses

The Policy Issue Analyses will result in reports to the Governor and the Legislature containing recommendations for actions to establish new policy or change old policies. They could also result in reports to other entities, including federal, interstate, and local agencies on the development of policies that may influence management of the state's water resources.

The Legislature will receive annual reports on the progress of Policy Issue Analyses as directed in L.R. 300. Each report will include information on the policy issues on which work has been completed, including an evaluation of relevant alternative approaches to each issue, and any recommendations which have been formulated regarding the alternatives to consider for implementation.

Guidelines for Policy Issue Analyses

Policy Issue Analyses may originate at the request of the Governor or the Legislature. They may also be initiated at the request of any agency involved in the Process. They will ordinarily be designed for inclusion in the annual Plan of Work as interagency studies. In some cases, a task force comprised of personnel from several agencies might be assigned responsibility for the work, and in others, individual agencies might be assigned separate sections of the study.

Policy Issue Analyses will require the cooperation and input of representatives of local governments and districts and the general public. In many cases, participation by the public will be required during all the steps in the analysis, and in nearly all instances public reaction to proposed alternatives and recommendations will be required.

Policy Issue Analyses will generally concentrate on the policy aspects of water and related resources problems. In most cases, in-depth analyses of the resources and the problems will be a part of the Base Activities described in Chapter 8. The policy analyses will be

designed to rely on that general support base whenever possible. They will be designed to assemble available data, analyze the requirements for additional data, and develop means of gathering or estimating required information. The analyses will concentrate on researching the legal situation in Nebraska and other states as well. Alternative policies will be developed from experience in other states and the federal government and from innovative and untested options as well. The impacts of these alternatives will be analyzed and the methods of implementing the alternatives will be investigated. Finally, recommendations will be made to the Governor and the Legislature, or to other entities, as requested.

On some issues preliminary recommendations may be accompanied by a recommendation for further study. Because of the urgency of some of the issues, analyses can be designed to provide information and options in stages. In the first year, a Policy Issue Analysis may compile and examine the information available and find that the initial steps in establishing policy can be taken with only a generalized analysis of the impacts. In such a case, it might be recommended that the first steps be taken at that time and that further study be conducted to refine and expand on the initial stage.

Proposed Policy Issue Analyses and Recommendations

The initial effort in this reemphasized portion of the Planning and Review Process will be directed at legislative policy issues rather than administrative issues. In L.R. 300, the Legislature indicated that the policy issues to be analyzed should include, but not be limited to, questions concerning the following:

1. Conflicts among ground and surface water users.
2. The conjunctive use of ground and surface waters.
3. Conflicts among riparian and appropriative water right holders.
4. Groundwater management policies.
5. Water needs for municipalities.
6. Environmental and recreational demands for water.
7. Inter-basin water transfers.
8. The protection of surface and groundwater quality.
9. The integration and coordination of state water allocation and water quality policies.
10. The role of the state and its political subdivisions in financing water resources development and management.

Before designing the studies necessary to analyze the questions raised by these ten subject areas, several steps had to be taken. First, because these ten areas were quite general in nature, it was necessary to identify and list the issues in more specific terms. Secondly, the issues as thus identified were grouped into five new categories of related issues. Finally, priorities were established for the issue categories in order to allow for analysis of the issues identified in as orderly a fashion as possible. During this process it was found there is no magic formula for separating the multitude of policy issues requiring possible consideration. Virtually all water issues are interrelated, making their orderly analysis extremely difficult. If

sufficient time were available, all issues would be identified, designed as parts of a complete study, analyzed concurrently, and then presented in the form of a comprehensive, totally integrated water code. Unfortunately, the urgency of many issues makes this impracticable, and it was determined that a system must be developed which provides for at least some separation of the issues for analysis purposes.

The system which was utilized for categorizing the legislative policy issues and for determining priorities is one which would be used as a normal planning process for the non-policy aspects of planning the utilization of any resource. This approach begins with the basic premise that decisions on the utilization of a resource cannot be made until the quantity of the resource available for use is determined. Therefore, it is logical that the initial objective must be to analyze policy issues for which a decision will affect the quantity of the supply available for utilization. Following analysis of those issues, attention can be directed to issues regarding the allocation of those available quantities between competing users and the augmentation of available supplies where such opportunities exist.

The categorizations listed and prioritized below do not presume that the issues identified can be separately treated, as if in a vacuum. For example, a resolution of the instream flow issues listed in priority 1 could not be properly accomplished without consideration of the effects of alternative actions on other water uses. That does not mean, however, that all issues relating to out-of-stream water uses will have to be resolved before any decisions can be reached.

The issues listed fully accomodate the policy subjects identified by the Legislature in L.R. 300. However, the complexities of water management will almost certainly produce new issues not identified here. For this reason and others, the adopted categories and priorities should not be firmly established for the duration of the analysis process. However, they provide an adequate and logical point from which to begin.

Priority #1. <u>Should the surface water policy of the state be changed to recognize and protect the following instream flow values? If so, to what extent should such protection be provided and how should conflicts, if any, among such values be resolved?</u>

A. Fish and wildlife
B. Outdoor recreation
C. Interstate compacts affecting inflows and outflows
D. Hydroelectric power production
E. Domestic uses (stockwatering)
F. Aquifer recharge
G. Navigation
H. Aesthetics
I. Wild and scenic rivers
J. Water quality protection

Methods for enhancing existing flows for such purposes would not be considered at this time, but would be deferred until priorities #3 and #5 are undertaken.

Priority #2. Should the policy of the state be changed to provide for additional general groundwater management policies? Issues to consider include:

A. Depletion rates
B. Aquifer life
C. Water level maintenance (confined and unconfined)
D. Water quality protection
E. Natural discharge for maintenance of streamflows, wetlands, and subirrigation

This category would include general goals for groundwater management. The basic questions posed are whether the state should try to conserve groundwater for future use or to maintain water levels in groundwater aquifers, and, whether it should encourage and/or specifically provide for means of accomplishing these objectives, such as limited rates of decline. Also to be considered are whether groundwater withdrawals ought to be managed for the benefit of streamflows and groundwater quality.

Priority #3. Should the Policy of the state relating to the allocation among and management by competing users for available surface water supplies be modified? Issues to consider include:

A. Improved management alternatives to include conservation (efficient use)
B. Conflicts between riparians and appropriators
C. The preference system
D. Transferability of water rights
E. Water quality (other than waste assimilation)
F. Limited term appropriations
G. Long range municipal use
H. Surface water storage policies
I. Others

The issues in this category are those which relate to the allocation and adjustments in allocations between competing needs for water. Consideration would not be limited to consumptive uses as adjustments among in-stream and out-of-stream uses are possible.

Priority #4. Should the policy of the state relating to the allocation among and management by competing users of available groundwater supplies be modified? Issues to consider include:

A. Improved management alternatives to include conservation (efficient use)
B. Preference system
C. Domestic v. irrigation conflicts
   1. Confined aquifers
   2. Unconfined aquifers
D. Transferability of water or rights to use
E. Municipal needs for water
F. Protection of water quality (other than as related to quantity depletions)

G. Correlative rights (especially between users with same preference)
H. Others

Analyses of issues in this category for groundwater would be similar to those for surface water in Priority #3. The objective is to determine the methods for providing the best allocation of groundwater among competing demands. Ideally such analyses would be made in view of decisions reached in response to Priority #2.

Priority #5. Should the policies of the state relating to the long-term and short-term augmentation of available supplies of surface water and groundwater be modified? Issues to consider include:

A. Utilization of groundwater to supplement surface supplies
B. Interbasin transfers
   1. Groundwater
   2. Surface Water
C. Utilization of surface water to supplement groundwater supplies
   1. Artificial recharge (all forms)
   2. Conjunctive use
D. Allocation and cost distribution of augmented groundwater supplies
E. Storage policies - surface waters
F. Weather modification
G. Others

Following analysis of the first four priority categories, it will then be appropriate to make determinations regarding the physical alteration of available supplies where opportunities exist and transfers are consistent with the other policies established.

There are also a number of other issues which relate to nearly all of the preceding issues. In large part these issues cannot be separately studied, but must be analyzed with regard to their relationship to the issues already identified as those issues are being considered. These include:

1. The collection, interpretation, and storage of data
2. The effects of regional and federal policies and programs
3. Appropriate financing arrangements to carry out desired objectives
4. The necessary institutional structure for implementing the policies deemed appropriate.

STUDY DESIGNS

After categories of policy issues and priorities for analysis were established, it was necessary to design studies required to analyze the issues and provide alternatives and legislative recommendations. As these studies will have to rely on the expertise found or developed within various agencies, the studies had to be designed in a way which would be best suited to interagency activities in some cases and to single-agency activity in others. The final result is the formulation of nine separate studies designed to address all of the issues listed in

the priorities. These studies should proceed in the order most nearly approximating the priorities established for the issues at which they are directed. They should, when completed, provide analyses and recommendations on all legislative policy issues identified.

Some studies address all issues listed under a priority category; others involve issues under one or more related priority categories. There are studies of water quality and water use efficiency, for instance, designed to develop information on quantities of both surface and groundwater available for allocation. In another instance, two studies of specialized issues are designed to provide information for a third (inter-basin transfers), which addresses one of the issues in Priority #5 directly.

The designs of the studies include the general study components, the work elements under each component, the schedule for completion of each element, and the costs associated with each. Agencies responsible for working on each element have been designated and required funding distributed to those agencies. This information is summarized in Figure 4-1 at the end of this chapter.

Study No. 1 Instream Flows

The purposes of this study are to develop the information and data necessary: (1) to determine whether the instream flow needs specified in priority #1 should be recognized and provided for by legislative action, and (2) to determine the methods and criteria for establishing the proper amount of unappropriated water to be reserved for the protection of various instream flow values. Objectives addressed by the study include: (1) the determination of the need for reservation of a portion of the unappropriated flow for the various values, (2) development of methodologies for selection of applicable streams and determination of appropriate flow levels, (3) development of alternatives for making legal provision for such flows, and (4) the evaluation of impacts of alternative actions proposed and the "no action" option.

Study No. 2 Water Quality

One of the factors which determines the quantity of water available for use is its quality. Water containing certain dissolved minerals can be unsuited for drinking, for bathing, or for irrigation. The purpose of this study is to determine how the quality of water is affecting, or may affect in the future, the quantities available for other uses, and policies that may be needed to protect water quality and quantity. Specific objectives addressed by the study are to: (1) determine the potential effects of surface water quality on the suitability of water supplies for different uses and the quantities affected, (2) determine the potential effects of groundwater quality on the availability of water supplies for different uses, (3) formulate and evaluate alternative methods of protecting water quality, and (4) develop alternative and recommended administrative and legislative policy.

Study No. 3 Groundwater Reservoir Management

The purpose of this study is to develop the information and data necessary to determine the appropriate rate of utilization of the existing groundwater supplies considering such concerns as aquifer life, rate of depletion, water table levels and changes, natural discharge to surface water, and water quality protection. The objectives addressed by this study are to determine: (1) the need for establishment of additional goals and criteria for use of existing groundwater supplies, (2) the appropriate management techniques to fulfill these goals, and (3) alternative and recommended administrative and legislative actions to provide such management.

Major considerations of the study will be: (1) aquifer definition, (2) use definition, and (3) constraints on development. The definition of aquifers should include factors such as physical boundaries, capacity, yield potential, quantity, and quality. The definition of uses should include factors such as rate and time demands, geographic extent, quality requirements, physical impacts (aquifer, environment, and other uses), and social/economic impacts. The definition of developmental constraints should include consideration of aquifer capability, use characteristics, environment, economics, social concerns, technology, administrative structures, and legislation.

Study No. 4 Water Use Efficiency

More efficient use of water on-site could make more water available to water users, and, in some circumstances, decrease rates of surface or groundwater reservoir depletion. Water use efficiency practices tend, in general, to minimize water use per unit of output, and this definition is adopted herein. The current problem is the inefficient use of water, and alternative policies for reducing inefficiencies are desired. An evaluation of the implications of various water use efficiency practices would help policy makers determine what mix of education, management practices, technological practices, incentives, regulation, and innovations is appropriate to achieve desired outputs at minimal water use per unit of output.

The objectives addressed by this study are to: (1) identify and list alternative state and local policies for dealing with the problem of inefficient water use. Methods of improving water use efficiency, including technological applications and modifications, farm level management practices, and legal-administrative-regulatory policies will be listed and compared in a state-of-the-art fashion; (2) identify and list the categorical implications of implementing the different methods of improving water use efficiency, including consumptive use effects, impact on agricultural and other water related production, and distributional impacts. The categories of impact analysis include physical-hydrologic, social-economic, environmental-ecological, and legal-institutional; and (3) examine and recommend alternatives for implementing the different policies for dealing with the issue of inefficient water use.

Study No. 5 Surface and Groundwater Rights Systems

Nebraska's statutes regarding surface water allocation have not changed significantly since their enactment in 1895. Problems regarding interrelationships between groundwater and surface water have emerged, but the existing water rights system does not recognize or provide for the resolution of such problems. These problems and legal problems concerning groundwater not included in other studies should be addressed in this study, and the results of all studies should be integrated into a comprehensive water rights system.

The objectives of this study are: (1) to identify and quantify existing and potential conflicts between competing users of both surface water and groundwater, and conflicts between surface water and groundwater users under the existing legal systems of water rights; (2) to formulate and evaluate alternative modifications to the water rights system; and (3) to produce alternative and recommended administrative and legislative actions to modify the systems. Alternatives for resolving these issues will be evaluated for their environmental, economic, hydrologic, and institutional impacts. The extent of required evaluation of potential impacts of alternatives must be devised early. Existing and potential rights to be studied include: (a) the preference system (including municipal), (b) transferability of water and rights, (c) water table (pumping) levels or compensation, (d) unlimited terms of rights, and (e) storage rights, (f) correlative rights, (g) water quality protection, (h) riparian water rights.

Study No. 6 Municipal Needs

Study needs range from an analysis of municipal water quality to available water quantity and consumption patterns; legislative, constitutional, and legal conditions; review of utility management practices; federal emphasis on regionalization of water supply systems for these purposes; and inclusion of all community public water supplies as municipal uses. The management and regionalization considerations are particularly important to the smaller municipalities.

In comparison to other uses the total amount of water used by municipalities has been shown to be very small. However, the quality of water required for municipal needs as compared with other uses is perhaps the highest. Other uses may alter water quality or quantity, making the resource unacceptable for municipal needs. At the same time no significant complications may be observed by the other users. Conditions that force municipalities to seek alternative sources or to add treatment pose serious financial difficulties for each of them. Municipalities have thus far borne the cost of development and expansion caused by decreased water availability or unacceptable increases in contaminants. Although private and certain limited federal financial grant and loan programs do exist, many smaller municipalities do not have adequate capital and/or management to qualify.

The objectives of this study are to: (1) determine future municipal water supply demand and potential conflicts with other users in terms of quality and quantity; (2) investigate and evaluate alternative methods of supplying municipal needs, and identifying legal and institutional obstacles to their implementation; (3) identify means of protecting municipal wells from potential sources of contamination; and (4) produce alternative and recommended utility management concepts and legislative policies.

Study No. 7 Supplemental Water Supplies

The purpose of this study is to determine the appropriate use of all sources of water supplies, both surface and groundwater, for supplementing existing supplies. It will focus upon augmentation of those sources currently utilized.

Objectives addressed by the study include: (1) the identification of receptive areas, methods, and sources for augmentation; (2) the appropriate management techniques to implement the augmentation; and (3) the determination of alternative and recommended administrative and legislative actions to facilitate augmentation.

Major considerations of the study will be: (1) aquifer definition (2) surface water source definition, and (3) constraints upon augmentation. The definition of aquifers should include factors such as physical boundaries, capacity, yield potential, quantity, and quality. The definition of surface water source should include physical limits, streamflow characteristics, precipitation patterns, storage inventory, quantity, and quality. The definition of constraints should include consideration of aquifer capability, surface water source capability, environment, economics, social concerns, technology, administrative structures, and legislation.

The recommendations from this study will address the legislative policy issues concerning the conjunctive use of ground and surface water and the protection of surface and groundwater quality.

Study No. 8 Interbasin Transfers

In time it may be shown that some river basins have more water than they need or can use for recognized uses of water, and other basins have insufficient supplies for needs such as instream flows, irrigation groundwater recharge, and maintenance of water quality. It may be proven that there is sufficient surplus water in the former basins to supplement supplies in the latter basins, and that there is significant support for a change in policy regarding the transfer of water from one basin to another. This study is designed to provide information and data necessary to study alternative policies on means of authorizing interbasin transfers.

The objectives addressed by this study are to: (1) Establish the criteria to be used for terms such as "surplus water", "insufficient water supplies", and "physically, economically, environmentally, and

socially feasible"; (2) determine the nature and extent of interbasin transfers that are physically feasible under existing technology; (3) compile for each potential type of transfer an initial determination of economic, environmental, and social feasibility; (4) identify the institutional arrangements which interact in decision making related to interbasin transfers; and (5) identify alternative institutional arrangements for decision making relative to interbasin transfers including initiation, authorization, planning, funding, and implementation.

Study No. 9 Weather Modification

The purposes of this study are to (1) assess the practical potentials for weather modification in Nebraska, (2) identify problems and issues and legal and institutional requirements for selected objectives, and (3) focus on alternatives and recommend appropriate legislative and administrative action to initiate the state's program.

Investigations to date in this field show that the federal government must assume overall leadership in working with the states and other nations. Exemplifying this role, the Congress directed the Secretary of Commerce to accomplish a comprehensive investigation. Among other responsibilities, he was requested to make recommendations to implement a national weather modification policy and program. The Weather Modification Advisory Board submitted its report in June 1978. Perspective is provided by two quotations from the report: (1) "The key conclusion is that a usable technology for significantly enhancing rain and snow and ameliorating some weather damage is scientifically possible and within sight"; and (2) "It seems probable that a much intensified and steady program of scientific inquiry over the next two decades will yield regionally important increased rainfall in areas like our High Plains and Midwest by the later 1980's, reduced hail damage by the 1990's."

Under Congressional authorization therefor and a memorandum of understanding with affected states, including Nebraska, the Bureau of Reclamation has underway a comprehensive research and development program for precipitation management in the High Plains, designated Hiplex. The results will become available in report form about 1980.

Culminating contemplated action by the Congress on national policy and programs stemming from recommendations of the Weather Modification Advisory Board, and availability of the Bureau's report, Nebraska could undertake its aforesaid assessment and legislative/program formulation—probably in the early 1980's unless interim developments should dictate otherwise.

INFORMATION AND DATA REQUIREMENTS

Legislative Resolution 300 states that the Work Plan shall include an identification of information needs for those Policy Issue Analyses to be initially evaluated and the tentative schedule for acquiring and interpreting such information. The details supporting the summaries

herein show the tentative schedules for the general data collection and interpretation work elements and the general character of the required data. Specific data needs will be detailed when studies are approved and funding is known.

Implementation of Policy Issue Analyses

All nine studies cannot be carried out in the first year. The results, or partial results, of some must be available before others can be carried very far. The amount of funding made available will determine the number of studies that can be started and the rate at which they will progress.

Figure 4-1 summarizes the study components, their priority, and schedules, and funding for the state agencies, consultants, and others. The priority, or priorities, shown in Figure 4-1 refer to the five categories listed earlier. The schedule provides in some studies for (1) preliminary reports and (2) study reports and recommendations. In such instances, there may be the potential for legislative action based on a preliminary report with or without added study and amendatory legislation. This eventuality is discussed later in the report. While the tentative schedule bars and accompanying total annual funding are shown for six years ending in 1984, those beyond 1980 are included largely for purposes of providing perspective in the continuity of the analyses and possible total funding. Agency distribution is shown for the current fiscal year (1979) and budgeted fiscal year (1980) together with the balance scheduled.

Figure 4-1 - Implementation of Activities - Policy Issue Analyses and Recommendations

Policy Issue Study & Component (Priority)	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	IANR CSD	IANR WRC	IANR Other	SOPP	Consult & Other
Instream Flows (1)	50	115	48	87	-	-	300	16/24/10 (0/16/39)	4/20/10	(5/10/2)	21/31/46	0/7/10 (1/3/10)	0/2/1 (0/2/0)	3/0/7	✓	✓
Research existing instit. structure																
Define major problems/ issues																
Identify technical contribution - ongoing studies																
Determine flows/requirements - by objective																
Identify technical/ instit. opportunities																
Identify types/range - impacts																
Develop alternatives/legislative recommendation																
Water Quality (1-2-3)	8						8	4/0/0	✓	(4/0/0)	✓	✓	✓	✓	✓	✓
Review pending "State Water Quality Report" coverage																
Develop any added/alternate recommendations for inclusion																
Groundwater Reservoir Management (2)	57	81	40				178	3/8/1 (0/5/9)	3/2/0	✓	6/0/0	23/20/6 (7/20/3)	9/4/1	1/3/6	✓	5/19/14
Development management																
Management implementation																
Model/specific legislation																
Water Use Efficiency (3-4)			55	55	65	65	240	✓	0/0/10	(0/0/25)	✓	(0/0/30)	0/0/95 * (0/0/80)		✓	✓
Identify existing/ alternative policies																
Assess alternatives & nature of impacts																
Select/recommend alternatives/means of implementation																

Figure 4-1 - Implementation of Activities - Policy Issue Analyses and Recommendations (continued)

Policy Issue Study & Component (Priority)	F.Y. Schedule & Funding ($1,000) 79	80	81	82	83	84	Sum	Agency Funding - 1979/1980/Balance Scheduled ($1,000) NRC	DWR	DEC	GPC	CSD	TAHR WRC	Other	SOFP	Consult & Other
Surface & Groundwater Rights System (3-4)	14	40	86	27			167	5/6/7 (0/4/24)	0/6/8	✓	0/0/12	0/4/6 (0/4/6)	0/3/17 (0/3/0)	9/10/13	✓	0/0/20
Review existing Nebr. legal/institutional structure																
Review/assess policies - selected states																
Identify alternative policies applicable																
Define nature/impacts of alternatives																
Summarize alternatives/ recommendations of other policy issue studies																
Develop alternate & legislative recommendations																
Municipal Water Needs (3-4)			20	30	20		70	0/0/2 (0/0/6)	0/0/2	(0/0/6)	0/0/2	0/0/4 (0/0/8)	0/0/3	-	✓	0/0/37*
Review institutional/ structure/policies of Nebr., selected states & federal																
Review technical reports/ data																
Identify types - potential problems/issues																
Identify types - technical/ legal alternatives																
Identify nature/extent of impacts for major alternatives																
Develop alternate & legislative recommendations																

Figure 4-1 - Implementation of Activities - Policy Issue Analyses and Recommendations (continued)

Policy Issue Study & Component (Priority)	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
												IANR				Consult
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	CPC	CSD	WRC	Other	SOPP	& Other
Supplemental Water Supplies (5)		17	143	55	30		245	0/1/12 (0/0/44)	0/5/18	(0/0/5)	0/5/2	0/3/30 (0/3/25)	0/0/9	0/0/19	✓	0/0/64
Constraints																
Developmental mgmt.																
Mgmt. implementation																
Legislative recommendations																
Interbasin Water Transfers (5)				20	35	30	85	0/0/10 (0/0/43)	0/0/9	(0/0/3)	0/0/7	(0/0/4)	0/0/6	0/0/1	✓	0/0/2
Research existing studies, legal/institutional structure																
Identify types of alternatives/criteria																
Define major problems/issues/nature of impacts																
Management implementation																
Develop alternate & legislative recommendations																
Weather Modification (5)					10	20	30	0/0/2	0/0/1	(0/0/1)	✓	✓	(0/0/1)	-	✓	0/0/25@
Research existing studies/institutional structure																
Define major opportunities/problems/issues																
Developmental management																
Develop major alternatives & legislative recommendations																
Subtotal - Accelerated	112	183	226	170	90	82	863	28/39/44	7/33/58	-	27/36/69	23/34/56	9/9/133	13/13/46	-	5/19/162
Subtotal - Redirected	(17)	(70)	(166)	(104)	(70)	(33)	(460)	(0/25/165)	-	(9/10/42)	-	(8/30/86)	(0/5/80)	-	-	-
Total	129	253	392	274	160	115	1323	28/64/209	7/33/58	9/10/42	27/36/69	31/64/142	9/14/213	13/13/46	-	5/19/162

NOTE: ✓ Signifies review of policy implications.
State Department of Health.
@ State Department of Agriculture, Institute of Agriculture and Natural Resources, or other state agency to be designated upon initiation of study.
Study report.
Preliminary report.
* Includes all activities in IANR except CSD.

NOTE: Accelerated activity/funds - open figures; Redirected activity/funds - in parentheses.

Chapter 5. State Initiated Problem Analysis and Area Planning

This part of the Process was designed to fit as an integral part of the overall system by providing a mechanism that allows the development of studies of specified problems or areas. It is the most flexible and comprehensive component of the Planning and Review Process.

CURRENT ACTIVITY

State Initiated Problem Analysis and Area Planning is so broad and flexible it covers substantial parts of two of the sections of the original design for the State Water Plan - the Framework Study and the Basin Plans. The difference is that the Framework Study and the Basin Plans combined Base Activities such as resource inventory and data management with problem analyses and evaluation of alternatives within a rigidly defined boundary. Both the Framework Study and the Basin Studies were intended to be comprehensive planning efforts.

Current work is concentrated on basic activities for comprehensive studies of the Big and Little Blue River Basins. It started with the development of a finite difference groundwater model of the upper parts of the two basins. This model will soon be available for evaluation of alternatives in that area. Methods for evaluating floods and flood damages in the Big Blue Basin have been investigated, and computerized flood routing models are being developed for analyzing floods and flood control projects in smaller subwatersheds. The Corps of Engineers is developing a comprehensive flood routing model for use by the state and these two systems will soon be available to evaluate alternatives in the Big Blue Basin. This study is scheduled for completion in 1980.

CONCEPTS FOR PROBLEM ANALYSIS AND AREA PLANNING

This activity has been designed to be sufficiently flexible to meet any needs for planning analyses not provided in other activities. It could also provide any analyses needed to maintain a minimal planning process if none of the other optional activities is adopted as part of the Planning and Review Process; or if they are included but not funded. If all optional components of the Process are adopted, Problem Analysis and Area Planning will go beyond the scope of Policy Issue Analyses in investigating resource problems and developing site-specific alternatives. Problem Analysis and Area Planning activities will also be more detailed and extensive than Program and Project Reviews. In most cases, reviews will be short-term efforts that will not allow sufficient time for a study of the scope envisioned for Problem Analysis and Area Planning.

Most of the work in this activity will be directed toward impending, major problems that can be foreseen sufficiently far in advance of their probable occurrence that they can be examined by a carefully designed planning analysis before reaching a critical stage. Many situations which are addressed in the current Policy Issue Analyses could have been the subject of Problem Analysis and Area Planning 5 or

10 years ago, when they were first recognized. Now, problems such as mounting groundwater uses that deplete streamflows and adversely affect existing surface irrigation rights are a reality, and long-term analyses will not produce answers soon enough. This problem has already become critical in some areas, such as the Republican Basin.

However, there are many situations where there still may be a chance to anticipate and prepare for problems before they become critical. The drought of the mid-1970's demonstrated that the potential exists for even greater conflicts between surface water users, particularly between off-stream and instream users.

The Problem Analysis and Area Planning activity is designed so it can cover any special situation, whether drought or flood related, that might arise. Special studies will be custom designed to provide answers to problems perceived by the Governor, Legislature, or cooperating state agencies. They will not be rigidly structured like comprehensive basin plans. If a comprehensive planning effort of a basin or watershed would best serve the need, the Problem Analysis and Area Planning activity could be designed that way. If a study of a single subject, such as a specific groundwater aquifer, was better suited to the perceived need, it could be designed and scheduled as that type of activity in the annual Plan of Work. The key to this activity is designing the study to meet the need, whether for a specific area or a specific subject.

The list of potential problems that could be analyzed is extensive, and more will become apparent in the future. The cooperating agencies, the Governor, and the Legislature must all participate not only in detecting future problems, but in deciding on their magnitude, assigning priorities and designing the analyses as well. Many analyses will be addressed to complex situations requiring extended studies, and many will be broad, extensive, and complicated. They will, most likely, be costly, so additional funds will have to be appropriated or other activities will have to be sacrificed or postponed to schedule them. Therefore, it will be necessary for the Governor and the Legislature to be fully aware of the need for the analysis, the results that can be attained from the funds requested, the importance of funding in the work schedule and Plan of Work, and the importance of continuity in the planned work effort. Close communication between all parties will be required to ensure that Problem Analysis and Area Planning activities are not designed to be more extensive and expensive than necessary or fundable.

The design of Problem Analysis and Area Planning activities will be the responsibility of the Interagency Water Coordinating Committee (IWCC). Nearly all of these activities will be cooperative efforts involving many, if not all, state agencies involved in water resources management, and certain federal agencies also. Problem Analysis and Area Planning might require a multi-disciplinary task force from a number of agencies to lead the work, or the individual parts of the study might be accomplished in separate agencies with a designated agency to coordinate the work and fit all the parts together. Since agency participation would be the key to successful completion of such a study, careful preparation of study designs by the agencies, and careful coordination of designed activities by the IWCC in developing annual Plans of Work would be required.

POTENTIAL PROBLEMS OR PLANS

A number of problems or areas could be the subject of Problem Analysis and Area Planning. They might cover any part of the full range of subjects in water and related resources planning and management. One example of an area with potential for study would be the upper section of the Platte River and major tributaries above Columbus. It is a complex system of surface and groundwater uses affecting both the quantity and quality of water, controlled by uses in Colorado and Wyoming as well as Nebraska.

An example of a type of problem not confined to one area would be the mounting scarcity of adequate rural domestic and municipal water supplies in a number of areas, such as the Nemaha and lower Big Blue River Basins, and northeastern Nebraska.

It will be the responsibility of the IWCC to develop a list of potential problem subjects and areas prior to the preparation of the first annual Plan of Work. The input of the public, the Legislature, and the Governor will be required in the development of that list. The list will then provide the basis for selection of Problem Analysis and Area Planning activities.

It will be necessary to update and revise the list periodically. At the least, it should be current and available annually for preparation of succeeding Plans of Work.

POTENTIAL COOPERATIVE STUDIES

In addition to state directed studies, there are a number of opportunities for the state to increase the effectiveness of its planning efforts in this activity by cooperating with federal agencies and interstate entities like the Missouri River Basin Commission. By cooperating with federal agencies in their normal studies, the state can gain a considerable amount of information it might never have acquired. By initiating a study by request to a federal agency, or by making commitments to participate in a federally proposed study, the state may have an opportunity to determine or add to the objectives and design of the federal effort and thereby fulfill more of its own goals.

Federal Agencies' Studies

There are a number of studies planned or under way by federal agencies in Nebraska at this time. Some are comprehensive, multipurpose studies of large sections of the state, and others are of special subjects or limited areas. To gain the maximum benefit from these studies from the state's standpoint, coordination and cooperation is needed. Through properly designed Problem Analysis and Area Planning activities, participation in the following federal studies would increase the effectiveness of the state's resource planning efforts substantially.

HIGH PLAINS OGALLALA AQUIFER STUDY

This is a specialized, multi-state study of the economic effects of the use of groundwater in the High Plains funded by the Department of Commerce, Economic Development Administration. Public Law 94-587 (1976) authorizes a study of the natural resources of the region, especially the area utilizing the declining water resources of the Ogallala aquifer. The study is to develop plans to increase the water supplies of the area and report on the impacts of doing nothing as well as alternative plans.

Nebraska has participated extensively in the development of the study design and selection of the contractor through its membership on the High Plains Council. In the next several years, $2 million will be available to the six states in the study area to finance their participation if they elect to take part.

HIGH PLAINS REGIONAL AQUIFER SYSTEM

The U. S. Geological Survey (USGS) has initiated a 5-year study of the High Plains aquifer system to develop the geohydrologic data base and computer models of the groundwater flow system needed to evaluate the response of the aquifer system to future groundwater management schemes. This study will be coordinated with the Economic Development Administration's High Plains study.

The area studied by the USGS will include approximately two-thirds of the State of Nebraska. The objectives of the study are to gather required data on the quantity and quality of water and the groundwater system, design and develop computer models of the aquifer system, and evaluate selected groundwater management alternatives.

PLATTE RIVER NATIONAL WILDLIFE STUDY

The Fish and Wildlife Service is conducting a feasibility study of a proposed National Wildlife Refuge along the Platte River in central Nebraska. The study will attempt to determine the habitat requirements of migratory waterfowl and other species currently supplied by the Platte River region. It will also attempt to determine what changes are taking place in the region and the potential effects of these changes on critical habitat. The impacts of taking no action and alternative plans for a wildlife refuge will be evaluated.

At this point, state planning agencies have had very little opportunity to contribute to this study. However, in the future it will be coordinated with several other studies, including the Upper Platte River Basin Water Management Program.

UPPER PLATTE RIVER BASIN WATER MANAGEMENT STUDY

As a result of concerns over a number of proposed projects in the Platte River Basin, the three states concerned, acting individually and through the Missouri River Basin Commission, proposed a coordinated

study with the Department of the Interior. The Missouri River Basin Commission developed a study proposal that included joint supervision by MRBC and Department of the Interior, which would include all three states and the Bureau of Reclamation, U. S. Geological Survey, and Fish and Wildlife Service, to coordinate all studies presently being conducted in the Platte River area and expand them to a total water management approach.

State agencies have been actively involved in promoting this study. State contributions to it will be essential to the fulfillment of state goals.

REPUBLICAN RIVER BASIN TOTAL WATER MANAGEMENT STUDY

The Bureau of Reclamation has initiated a study of the water resources and water uses of the Republican River Basin in Colorado, Kansas, and Nebraska. The Bureau has requested the participation of the three states in this study.

Decreasing water supplies in irrigation reservoirs in Colorado, Kansas, and Nebraska have caused problems in a number of Bureau of Reclamation projects. The Bureau is undertaking a study of the total water resources of the basin to determine the nature and extent of the problems and evaluate future alternatives.

Missouri River Basin Commission Planning

The MRBC is planning to conduct or coordinate a number of planning efforts with the cooperation of the member states and federal agencies. In addition to special studies authorized by the Commission to address special problems, its program calls for a systematic approach to continued improvement of the planning base through a series of subregional analyses, many of which will be of interest to Nebraska.

MISSOURI-BIG SIOUX SUBREGIONAL ANALYSIS

The proposal for this study calls for development of a mid-term, comprehensive, coordinated, joint plan for the area's water and related land resources. The area to be studied encompasses all drainage to the Missouri River between Fort Randall Dam and Sioux City, Iowa, excluding the Niobrara River and Ponca Creek in Nebraska. Planning alternatives will focus on current problems, including municipal and rural water supplies, urban and rural flooding, land management, fish and wildlife, outdoor recreation, irrigation, and water quality, and other relevant functional areas. The State of Nebraska has already agreed to participate with the states of Iowa, Minnesota, and South Dakota and the Corps of Engineers, Department of the Interior, Department of Agriculture, and others.

MISSOURI RIVER BASIN HYDROLOGY STUDY

In the course of recent studies, it was established that there are differences between states, and between state and federal agencies, concerning the basic data estimates describing the historical and existing hydrologic situation in the Missouri River Basin. Therefore, the MRBC proposed to develop a study that would provide an acceptable 1975 land and water resource data base and attempt to reconcile the differences in existing data.

The study would develop historical and current streamflow depletions and residual flows at key locations that are acceptable to all Commission members. This would lead to basinwide streamflow estimates which could be used by all members.

Once a system for analysis of hydrologic data is developed, it would provide a consistent method for analysis of feature problems within the basin. Such a system could be applied to tributaries within the basin, or portions of those tributaries to furnish hydrologic data that would integrate with basinwide data.

This system would provide the State of Nebraska with needed data on surrounding states and a system for keeping this data current. That data would then be available for planning within the State of Nebraska.

IMPLEMENTATION OF ACTIVITY

Problem Analysis and Area Planning activities would be interagency, multi-disciplinary studies of emerging problems deemed likely to become serious in the future. Recognizing the need for a study, designing it, and carrying it out will require an extensive, well-coordinated effort.

Implementation Process

Recognition of the need for a study of this type and timely assignment of resources to it will be critical to the success of Problem Analysis and Area Planning. Initially, a list of potential problems and problem areas needing studies will have to be developed. Then it will be necessary to assign priorities to proposed studies, with the help of the public advisory group. Committees or task forces should be appointed to develop study designs and proposed budgets. These will have to be reviewed and accepted by all affected agencies. Priorities will then have to be assigned to the studies, with the input of the Governor, Legislature, and public advisory group, and finally they will have to be incorporated into the annual Plan of Work and agency budgets.

Performance of the work elements in the study design will be the responsibility of the agencies receiving the budgeted funds. The designated agency would be responsible for overall management and supervision.

After the initial list of problems and studies has been developed, it will have to be kept current. As requirements change, or new problems emerge, any member of the IWCC could request addition of any problem to the list. Members might receive suggestions from many sources, especially the public advisory group.

Initial Implementation

Full-scale Problem Analysis and Area Planning activities, as envisioned in the Process, cannot be initiated until individual study designs have been approved and funds have been made available. However, there are a number of current activities closely related to Problem Analysis and Area Planning that need to be continued, or state commitments to them need to be fulfilled. Some of these are listed in Figure 5-1 at the end of this chapter.

The Natural Resources Commission has been working on comprehensive planning for the Big and Little Blue River Basins for several years, and completion is planned for fiscal year 1980. Most of the work to date could be classified as Base Activities, and the results of this work will fit into the future Process. The results of these preparatory efforts will soon be ready for use in the development of certain types of plans, if not a comprehensive plan for the two basins. To secure the benefit of their development, these results should be used to develop and evaluate limited plans for groundwater management and flood control satisfactory to local districts and state agencies, at least. In any event, this study should be phased out gradually and terminated in 1980.

There are also a number of federal and regional planning studies in progress or scheduled that are closely related to this activity. The Natural Resources Commission has committed the state to participation in the MRBC Missouri-Big Sioux Subregional Analysis. It was intended that this work would be done as part of the Missouri Tributaries Basin Plan, which has been eliminated by the Process design. There is some question whether the state's participation in the MRBC analysis would be Problem Analysis and Area Planning or Base Activities, but it has been included in the former category because the MRBC study is supposed to be a comprehensive, area plan. The Commission has committed itself to contribute only $10,000 in services to this study, as shown in Figure 5-1.

The Commission has also expressed its intent to participate in the Republican River Basin Total Water Management Study led by the Bureau of Reclamation. It was intended that the Commission's work on its Republican River Basin Plan would provide part of the State's contribution to the Bureau study, so other arrangements must be made to provide the state's input. The amount of funding the state would contribute has not been agreed on yet.

The Governor's office, the State Office of Planning and Programming, the Natural Resources Commission, and the University of Nebraska have already made significant contributions to the E.D.A.'s High Plains Ogallala Aquifer Study, and the state will soon have to decide whether to commit itself to a considerable input to that area planning study.

However, if the state decides to participate, the work will be funded by the Economic Development Administration, and state funding should be minor.

Other regional studies in which the state should participate include the Upper Platte River Basin Water Management Study, the Missouri River Basin Hydrology Study, and the Platte River National Wildlife Refuge Study. There will be others that should be added to this list in the future.

Normal Implementation

As the number of Policy Issue Analyses decrease, more attention will have to be directed to Problem Analysis and Area Planning. At that time, state recognized and designed studies will require more funding, and there will undoubtedly be additional federal and regional planning studies the state will want to participate in. Therefore, additional funds are shown in Figure 5-1 for this activity starting in fiscal year 1981, though the specific studies cannot be named at this time.

Figure 5-1 Implementation of State Initiated Problem Analyses And Area Planning

Component And Element	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
												IANR				Consult
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	CSD	WRC	Other	SOPP	& Other
Continuing																
Big and Little Blue R. Basins			See "Recommended for "Redirected" activity beyond 1980													
Water Quality Planning								Sections 208 and 303 planning, largely by NRC and DEC in collaboration with the Federal Environmental Protection Agency. First statewide report in F.Y. 1979 - continuing activity.								
Recommended																
Missouri-Big Sioux Subregional Analysis-MRBC (Missouri Tributaries, Nebr.)		6	4				10	0/6/4	Nebr. input to MRBC analysis for much larger area but including Nebr. Missouri Tribs.		-	-	-	-	-	-
Missouri Basin Hydrology Study-MRBC								Nebraska has a major interest in these studies and their effect within or affecting the state. Nebraska is already represented on management groups for High Plains Studies, with pending inputs thereto, and tentative commitments for participation in the others listed. To gain the maximum benefit from the state's standpoint, its cooperation and coordination of state objectives is necessary. Considering the pending nature for most of the Plans of Study at this time, only an aggregate cost estimate is presented for Nebraska's possible participation.								
Missouri Basin Comprehensive Coordinated Joint Plan - MRBC																
Platte River National Wildlife Study Upper-Middle Platte-U.S. Fish & Wildlife Service																
Upper Platte River Basin Water Mgmt. Program-Dept. of the Interior																
High Plains Ogalalla Aquifer Study-Dept. of Commerce																
High Plains Regional Aquifer System Analysis-U.S. Geological Survey																
Republican River Basin Water Mgmt. Study-U.S. Bureau of Reclamation																

Figure 5-1 Implementation of State Initiated Problem Analyses And Area Planning (Continued)

Component And Element	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	TANR CSD	TANR WRC	Other	SOPP	Consult & Other
Recommended (Cont.)																
Nebraska's Participation In Management and Inputs to Above MRBC and Federal Studies	5	10	30	40	20		105	5/4/45	0/1/10	-	0/2/15	0/2/15	0/1/5	-	-	-
Other Problem Analyses And Area Planning to materialize requiring State consideration and state leadership and/or participation as appropriate.			50	100	150	200	500	0/0/5 (0/0/215)	0/0/55	0/0/30	0/0/60	0/0/65	0/0/20	-	0/0/30	0/0/20#
			(Assumed figures)													
Subtotal - Accelerated	5	16	62	95	110	112	400	5/10/54	0/1/65	0/0/30	0/2/75	0/2/80	0/1/25	-	0/0/30	0/0/20#
Subtotal - Redirected	0	0	(22)	(45)	(60)	(88)	(215)	(0/0/215)	-	-	-	-	-	-	-	-
Total	5	16	84	140	170	200	615	5/10/269	0/1/65	0/0/30	0/2/75	0/2/80	0/1/25	-	0/0/30	0/0/20#

Note: ⚑ Completion date for the primarily federal activity.
⚑ Study report.
\# State Department of Health.

Note: Accelerated activity/funds - open figures; Redirected activity/funds - in parentheses.

Chapter 6. Project and Program Review

State reviews of federal projects and programs in Nebraska and adjacent states have been a function of the planning effort by state agencies for a number of years. Recently they have been extended to a number of other types of projects and programs. These reviews have been performed by different agencies on different types of projects over the years, but have never been made a formal part of the state water planning effort.

CURRENT ACTIVITY

In the past 15 years, there have been several formal systems for reviewing proposed resources projects and programs. In addition, there have been many efforts at coordinating planning related efforts and a number of informal reviews performed as required.

Natural Resources Commission Reviews

In 1963, the Natural Resources Commission was assigned responsibility for acting as the official state agency in connection with soil and water conservation, and an advisory committee was established by the Legislature to work with the Commission in coordinating and planning programs and projects affecting water resources in the state. The Commission then established procedures with the Corps of Engineers, Bureau of Reclamation, and Soil Conservation Service for reviewing their proposed project plans. Also, the Commission established a policy for coordinating these reviews among state agencies, formulating a state position from their statements, and sending the policy statement to the Governor for his consideration, endorsement, and transmittal as the official state position. Between 1967 and 1977, the Commission adopted policy statements on 35 projects in Nebraska and 8 in other Missouri Basin states. The Commission also coordinated a number of unofficial reviews of similar proposals.

State Office of Planning and Programming Reviews

The State Office of Planning and Programming (SOPP) conducts state reviews of various federal programs under the auspices of the federal Office of Management and Budget (OMB) Circular A-95. The SOPP is designated by the Governor as the State Clearinghouse and coordinates the review functions for the Office of the Governor. In addition, SOPP has the statutory responsibility for reviewing funding proposals from state level organizations to federal agencies, and proposals from local governments and individuals to federal or state agencies which include a state contribution to the project.

The system devised by SOPP coordinates the review of all projects of a specific type by all agencies having an interest in that type. All agencies identified as having an interest in the Planning and Review

Process currently review proposals classed as natural resources related activities. Initial review is conducted by mail, and further efforts to amplify the review are generally the responsibility of the concerned agency. Final action resulting from the review is determined and taken by SOPP, or in some cases, the final recommendation for action by the Governor is made by SOPP.

CONCEPTUAL COVERAGE

The Planning and Review Process can be expanded and improved significantly by including applicable reviews as an integral part of the Process. In the past, an adequate planning base capable of providing the needed data has not been readily available, so the reviews of projects and programs have not been related adequately to existing developments or to previously approved programs and projects. Because of limited manpower resources, only occasional attempts have been made to relate proposed projects to each other, to evaluate their individual and cumulative impact on water resources, and to determine the residual resources in the state.

With reviews carefully integrated into the Process, the planning/management support base should provide the frame of reference and most of the data required to evaluate impacts of a proposal together with others already approved, on the state's water resources. This requires adequate data and ready availability to meet the short review deadlines normally imposed. The added capabilities provided by the complete system, especially the planning/management support base, will make it possible to extend reviews to other types of projects and programs not currently covered.

TYPES OF REVIEWS AND REVIEW PROCEDURES

Reviews may be categorized by the types of proposals and the procedures to be used. The review system is sufficiently flexible to allow the State Clearinghouse to determine what type of review will best meet its requirements, yet it is designed to provide full consideration by given agencies or the Interagency Water Coordinating Committee (IWCC) where necessary.

Procedures for reviews under this Process allow for initiation by request of the Governor, Legislature, members of the IWCC, or any party with a qualified proposal. It would be the responsibility of the State Clearinghouse to receive and screen such requests and coordinate reviews among all state agencies. In many cases, a mail survey of participating agencies may be sufficient to determine lack of interest, or that the proposal does not seriously affect the state's interests. In some instances it may be necessary to call a meeting of the IWCC to determine the agencies' position and whether action of the Governor is required as the official state position. The Clearinghouse would be responsible for the preparation of reports or letters for action by the IWCC and/or the Governor.

ajor Federal Water Resources Projects

Major project proposals, like Corps of Engineers reservoirs in the Papillion Creek project, SCS small watershed project work plans, and Bureau of Reclamation multipurpose project plans are submitted to the Governor for review, generally with a request for an official statement of the state's position on the proposal. Using the planning/management support base, such plans will be reviewed to determine their impact on existing resources and uses and previously approved proposals.

For this type of program and project, requests for review and a statement of official state position will be received by the Clearinghouse. They will automatically start the Process review by distributing copies of the reports and environmental statements to all agencies on the IWCC with a request for comments and a statement of position on the proposals. If all agencies agree, the designated agency will prepare a position statement on behalf of the IWCC for the Governor's consideration, action, and transmittal to the federal agency. If the agencies' positions conflict, or an agency indicates that such consideration is required, a meeting of the Committee will be arranged. If the Committee determines that more information is required, or that the state should make an independent study of the situation, the Committee would have to decide on its priority, locate funds, and assign the study to one or more members. Upon completion, the report would start through the original cycle of review, until the IWCC finally submits its official position to the Governor.

Other Federal Projects and Programs

A number of other notices of federal projects and programs, including Environmental Impact Statements, are sent to the state for clearance under the requirements of OMB Circular A-95. The Environmental Impact Statement on the Narrows Unit in Colorado is an outstanding example of this type of notice. Some programs or projects, like Narrows, could have a significant impact on the state's water resources - others might have no discernible effect. The review system will be organized so potential effects will be checked by use of the planning/management support base, and that base modified to reflect any changed conditions if and when they become effective. Where the state's concern for projected effects of any proposal result in adverse comments, through the A-95 process or any subsequent action taken, there will be the assurance that these are supported by an adequate information base.

Procedures for reviewing projects and programs of less obvious impact must be similar to those for the major project proposals. Notice of these proposals is generally received by SOPP through the A-95 process. Initial steps in the A-95 process are copying and distributing notices of proposed actions and plans, regardless of the need for official state action. In this case, the Clearinghouse would have the option of using the normal A-95 process or initiating a full-scale review if it appeared to be necessary. Likewise, any member of the IWCC would have the opportunity to bring a subject to the Committee's attention. Reviews would then be conducted as described in the preceding section. In most instances, agencies could determine that proposals would have no significant

effect on water resources, and action by the IWCC and the Governor would not be required. The proposal would merely require A-95 clearance.

Federally Funded Projects and Programs

Many state, local, and private project and program notices are also reviewed under A-95 procedures prior to funding or guarantee of federal lending or mortgaging. Basin Electric Cooperative's proposed Grayrocks Reservoir in Wyoming is an example of this type of project that would have a significant impact on Nebraska's water supplies and environment. Procedures for review of these proposals would be identical to those outlined in the previous section.

Other Reviews

Other types of reviews could be included in the Process. For example, it has been suggested that reviews of the status of reclamation districts could be included to insure that statutory requirements on timing of construction and elections are met. Other statutory requirements concerning water resources projects and programs could also be monitored. Where any federal procedures for resource proposals in the state appear to circumvent state consideration, these should be questioned officially with the objective of modifying the basic procedure.

IMPLEMENTATION OF ACTIVITY

Implementing this activity as part of the Planning and Review Process will require primarily a continuation of existing activity with some strengthening and additions. Key additions will be including the IWCC in the Process and checking proposals utilizing the planning/management support base. Some duplication of current reviews can be eliminated by consolidating all water resource proposal reviews in one Process.

Basically, review activities will continue as they are now conducted by the State Office of Planning and Programming. Budgeting for this agency's activity would continue with only a slight increase in the future for the added duties of administration and management. The primary water resources planning agency, the Natural Resources Commission, currently devotes a portion of its normal budget to reviews. Under the proposed Process, much more work will be required to check proposals with the planning/management support base. Other agencies also contribute to current reviews out of other funds, and many will be expected to contribute more time and work, which could require additional funds.

Most of the additional work required to conduct more comprehensive reviews will be in maintenance of the Base Activities, discussed in Chapter 8. However, additional funds will be required for the agencies to use this data for reviews. Some agencies, such as Game and Parks Commission, which is required to do extensive work on the environmental effects of resource proposals, will require additional funds to meet the added demands of the revised Process.

All agencies will require additional funds to accommodate any significant studies requested by the IWCC. Work accomplished by several agencies to prepare for the Wyoming Grayrocks Dam case, for example, was time-consuming and expensive. In the future, information taken from the planning/management support base will expedite and make it simpler to review similar proposals, but additional work will still be needed in difficult cases to build on that base and this work will have to be funded somehow.

Recommended work, schedules, and funding for the implementation of this activity are given in Figure 6-1. Most of the activity shown will be continuing effort, but additional funds are recommended to accommodate new work imposed by the Process.

Figure 6-1 Implementation of Project and Program Reviews

Component	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
												TANR				Consult & Other
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	CSD	WRC	Other	SOPP	
Continuing																
Major federal projects								Conducted under agencies' regular funding-requests for reviews made for most part in the state's administration of the "A-95 program."								
Other federal projects/programs																
State agency projects/programs								Conducted as above but under the state's designated "2000-1 program".								
Numerous others, including EIS's								Conducted under agencies' regular funding and A-95 and 2000-1 referrals.								
Recommended																
Continuation of above but with added administration/management for strengthened program	(2)	(2)	(2)	(2)	(2)	(2)	(12)	-	-	-	-	-	-	-	(2/2/8)	-
Reference to and checking proposals with Planning/Management Support Base and Approved Project/Program listing			20	20	20	20	80	0/0/32	0/0/8	0/0/8	0/0/8	0/0/8	0/0/8	-	See Fig 9-1	0/0/8#
Preparation for meetings and actions to be taken on project/program proposals			14	14	14	14	56	0/0/8	0/0/8	0/0/8	0/0/8	0/0/8	0/0/8	-	See Fig 9-1	0/0/8#
Preparations for and actions on problem cases for permit application referrals			10	10	10	10	40	0/0/6	0/0/12	0/0/6	0/0/4	0/0/4	0/0/4	-	See Fig 9-1	0/0/4#
Subtotal - Accelerated	0	0	44	44	44	44	176	0/0/46	0/0/28	0/0/22	0/0/20	0/0/20	0/0/20	-	See Fig 9-1	0/0/20#
Subtotal - Redirected	(2)	(2)	(2)	(2)	(2)	(2)	(12)	-	-	-	-	-	-	-	(2/2/8)	0/0/0
Total	2	2	46	46	46	46	188	0/0/46	0/0/28	0/0/22	0/0/20	0/0/20	0/0/20	-	2/2/8	0/0/20#

Note - Accelerated activity/funds-open figures; Redirected activity/funds-in parentheses.
State Department of Health.

Chapter 7. State Project Planning and Design

At the present time, no major activities of this type are taking place, although varied degrees of assistance are provided as described later. Planning and design may become more desirable in the future if the changes in the activities of the federal government now under consideration are implemented, and the needs of the people become greater than the capabilities of local districts. The Process has been conceived to accommodate this need when it becomes more urgent.

CURRENT ACTIVITY

Activity of this type is quite limited at this time. The Department of Roads, Game and Parks Commission, and Natural Resources Commission are the only agencies with current programs related to this activity. The Department of Roads only provides aid to local districts with designs of projects if they are to be constructed in conjunction with highway projects.

The Game and Parks Commission develops plans and final designs for water-based recreation projects it constructs, such as boating access points and related facilities. Fish and wildlife projects are also designed by the Commission.

The Natural Resources Commission provides some planning assistance to NRD's, primarily on flood control and water-based outdoor recreation projects. When requested and found appropriate, basic surveying and mapping are provided for such proposals, and preliminary hydrologic and structural plans are prepared. Preliminary estimates of costs are also prepared to give the NRD an idea of the magnitude of a potential project. Final designs have been prepared by the Soil Conservation Service or a consultant on projects of this type.

CONCEPTUAL COVERAGE

This activity would include the planning of projects, including feasibility investigations and development of designs for construction. Planning and design could be accomplished by state agencies or consultants retained for a specific project.

Projects which might be planned would most likely be undertaken to fit the broad goals of the state, beyond the scope of single purpose proposals or local districts. They would likely be large-scale projects affecting regions of the state, probably in two or more NRD's. They could be cooperative projects between the state and NRD's, irrigation districts, or other local districts. They could also be a cooperative effort between the state and federal agencies. For instance, the state might participate in a multipurpose federal reservoir project by designing and constructing municipal and rural water treatment plants and distribution systems if they are beyond the capability of the local agencies.

State Project Planning and Design as part of the Planning and Review Process would be initiated at the request of the Governor, the Legislature, or some appropriate official of the state or a local government. Activities of this type would have to be carefully considered by the Interagency Water Coordinating Committee and scheduled as part of the state agencies' work in the annual Plan of Work. Specific proposals would require approval of the Governor and the Legislature in the Plan of Work and in budgeting, because the scope of the projects would undoubtedly require special funding.

IMPLEMENTATION OF ACTIVITY

State Project Planning and Design as part of the Process should be deferred to some future date when the need becomes apparent to the Committee, the Governor, and the Legislature. Current activities of this type will continue to be carried out at the agency level until the need for change becomes apparent.

Chapter 8. Base Activities

CURRENT COVERAGE

Of the four sections of the current State Water Plan effort described in Chapter 1, parts of the Framework Plan, Status Summary, and Basin reports can be considered Base Activities. Much of their content could be used to establish portions of the initial proposed planning/management support base and its components. Once established, this support base can provide most of the material required for management and other major activities described in earlier chapters.

CONCEPTUAL COVERAGE

Figure 2-2, in Chapter 2, provides perspective for the objectives, developmental responsibility, work products, and components of Base Activities. However, the concept merits added explanation.

Many water and land resource interests---local, state, and federal---need a general planning/management support base that reflects general consensus on the available resources, projected needs, and concepts for potential resource preservation and development. Recognizing that data and analyses will change over time, it is logical to develop looseleaf, open files by area rather than formal publications that are too soon outdated. Under the Planning and Review Process the basic (raw) data requirements and adequacy can be determined by agency consensus. Means can be evolved to secure modified and new data, and make revisions wherever necessary to maintain an adequate planning/management support base. The State's Natural Resources Data Bank, now administered by the Natural Resources Commission, will provide an important source of multiple reference and uses for all phases of the Process. Maintaining an awareness of resource needs and proposals requires not only an active library of planning reports, but alertness in seeking, storing, and utilizing improved and new resource planning and management techniques in this field.

While details remain to be determined and tested as to needed, practical limits, Figure 2-2 sets forth the general conceptual coverage for a needed planning/management support base. This effort will be based on the raw data of the Data Bank, but extend to many forms of analytical results. Those affected can adapt and reach consensus on the socio-economic data, inventory of resources, present development, and institutional structure to provide the planning/management support base data statewide or by area as appropriate. Without both state and area goals and objectives, resource planning cannot be effective---thus, these become important elements in the planning/management base. Projections developed by consensus can replace current, widely varying results. They can be used by all resource interests to appraise present and future problems and needs for preservation and use of the resources.

Repeated concerns have been expressed about the inflexibility of resource plans resulting from comprehensive planning as contrasted to the shifts and evolutionary changes in the real world. Responding to this there is suggested an emphasis on concepts rather than plans for potential resource preservation and development by area. With agreement on these broader concepts, this will leave room for flexibility in the consideration of alternatives and evolution of specific proposals to solve problems and respond to needs of the area.

But what of the need for resource plans? Actually, plans evolve from the prioritization of investigations for resource potentials and from the review and consideration of specific proposals resulting from those investigations. These plans can and do come from direct proposals by state and federal agencies and local groups for projects, programs, and resource management which they deem advisable and thus support for timely implementation. Such proposals are subjected to official review before they can be initiated.

Under the Process the state can monitor both ongoing and pending resource activities, as programmed and budgeted by those responsible, in or affecting Nebraska. Aside from affecting what resource problems, needs, and potentials should be investigated, particularly in the Project and Program Reviews, there will be the opportunity and responsibility to establish and thus declare state approval and commitment to support certain resource proposals. Upon full consideration some proposals will not be approved. This procedure will result in a listing and annual publication of those projects and programs that are approved. Being aware of "pending" proposals of this type will facilitate advance preparation for upcoming referrals and more knowledgeable, adequate reviews by reference to the planning/management support base and earlier state commitments of "approved" status for related and other proposals.

Nebraska's consideration of uses from both surface and groundwater sources poses many complex analytical issues. This is true of analyses involving an accountability of present uses and residual water supplies, and in projecting water availability and uses for the future. In these respects there is need for the development and operation of appropriate computerized systems to complement other elements of the analytical processes, particularly in maintaining a capability to evaluate the effect of resource proposals on the water budget.

Review and consideration of individual proposals for investigation, implementation, and management of the resources should result in the evolution and maintenance of the overall plan. Thus, as reviews of individual proposals are accomplished and approval given as evidence of state support, the standing, cumulative listing will be developed and updated as frequently as necessary. Its availability and publication annually will provide all water interests with current information on the state commitments in this respect. As a necessary complement, and basic to the Missouri River Basin Commission (MRBC) regionwide efforts, Nebraska should recommend priorities for the proposals of federal and

state agencies for resource activities over the succeeding five years. These encompass added data collection, planning related research, regional planning, preliminary or feasibility studies, and implementation of projects and programs. Here the state can strongly influence, if not control, what is to be studied and the evolution of added programs, developments, and water management in and affecting Nebraska.

IMPLEMENTATION OF ACTIVITY

Implementation for this major activity should encompass continuation of certain work now underway and that recommended as adjustments to accommodate changes or new initiatives and general acceleration as summarized on Figure 8-1.

Certainly, review of this report and actions by the Legislature and Governor on the recommendations and otherwise in setting policy are necessary before going too far with the scheduling of specific activities and determining associated funding needs. However, it is necessary at this time to consider programming and budgeting, particularly for Fiscal Years 1979 and 1980 but in some respects the near term of approximately five years. While participating at present under their regular operating budgets, most of the state agencies currently receive no designated planning funds. The Natural Resources Commission administers several "planning" activities and funds, but makes few sub-allocations to other agencies other than for water quality planning. It too receives other funds that can be considered as "operating" that are not here considered.

Figure 8-1 shows two planning components as "Continuing" in F.Y.'s 1979 and 1980, and several that are "Recommended" in developing, maintaining, and utilizing the results of Base Activities. Initial emphasis is in developing the basic support system makeup. In meeting the system's requirements, work can be accomplished first in introducing applicable data from numerous regional planning studies and reports now available, or underway with completion dates as shown on Figure 5-1 in Chapter 5. A complementary element is to develop and introduce data from added effort to fill gaps left by the aforesaid planning studies and reports and to accommodate other areas.

With an adequate data base there can be developed a computerized analytical system to serve needs shown by the multiple-agency and public consensus. One major objective of the system is to be able to apply and check the impact of resource proposals on the water budget for given areas. Initial work in both development and application of a pilot system in this respect is to be accomplished for the Big and Little Blue River Basins in 1979-80.

To implement Base Activities as recommended will require accelerated and redirected work and funds, defined on page 9-5. as tentatively scheduled in Figure 8-1. Included are $18,000 from the Legislature's

current appropriations for 1979, and $22,000 accelerated and $10,000 redirected requirements in supplemental budget requests by the agencies for 1980. Thereafter, annual requirements increase by 1983 and 1984 to $335,000, about half of which falls within the level of the F.Y. 1980 comprehensive planning budget of the Natural Resources Commission, comprising redirected activity. Acceleration of about $170,000 in 1983 and 1984 thus represents this increase over the current comprehensive planning budget. Tentative estimates of agency funding requirements are shown only for F.Y.'s 1979 and 1980, and for the balance scheduled.

Figure 8-1 - Implementation of Base Activities

Component & Element	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	IANR CSD	IANR WRC	IANR Other	SOPP	Consult & Other
Continuing																
State Water Plan - Status Summary		See "Recommended" for redirected activity beyond 1979.						NRC coordinates and publishes its "Status Summary" biennially; all agencies contribute information on their respective programs.								
Other Basic Planning Activities & Interagency Cooperation		See "Recommended" for redirected activity beyond 1980.						NRC coordinates and utilizes state and Title III federal funds for "Comprehensive Planning", collaborating with state and federal agencies, the Missouri River Basin Commission, etc. Other state agencies generally do not receive state funds for water planning per se, but results of their activities make contributions in this respect and for many other uses.								
Recommended																
Planning/Management Support Base																
Develop/Improve System Initiate Looseleaf Open File	18	12					30	7/0/0 (0/4/0)	2/2/0	2/1/0	2/1/0	2/2/0	2/1/0	-	See Fig 9-1	1/1/0#
Introduce data from regional planning studies-available and underway.																
Platte R. areas		20	130	100	65	15	330	0/4/24 (0/6/226)	0/2/18	-	0/2/9	0/2/18	0/2/8	-	See Fig 9-1	0/2/7#
Big-Little Blue areas			50	20	5	5	80	0/0/16 (0/0/48)	0/0/4	-	0/0/4	0/0/4	0/0/2	-	"	0/0/2#
Missouri Tributaries area				25	5	5	35	0/0/2 (0/0/26)	0/0/1	-	0/0/3	0/0/3	0/0/0	-	"	0/0/0#
Republican R. area					50	30	80	0/0/6 (0/0/58)	0/0/4	-	0/0/4	0/0/4	0/0/2	-	"	0/0/2#
Develop and introduce data from added effort to fill gaps in above base & to accomodate other areas				50	80	150	280	0/0/10 (0/0/120)	0/0/35	0/0/15	0/0/35	0/0/40	0/0/15	-	"	0/0/10#
Develop & Operate Computerized Analytical System - Water Budget	Initial work on development in Big/Little Blue basins in 1979/80.			50 (Operate as data availability & needs dictate.)	100	100	250	- (0/0/130)	0/0/20	0/0/10	0/0/20	0/0/60	0/0/10	-	"	-
Maintain Library of Plng. Reports/Techniques			5	5	5	5	20	(0/0/20)	-	-	-	-	-	-	-	-

Figure 8-1 - Implementation of Base Activities
(continued)

Component & Element	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
	79	80	81	82	83	84	Sum	NRC	DMR	DEC	GPC	TANR CSD	TANR WRC	Other	SOPP	Consult & Other
Recommended (Cont.)																
Plan Evolution & Maintenance																
Monitor ongoing/pending proposals			10	10	10	10	40	0/0/16	0/0/4	0/0/4	0/0/4	0/0/4	0/0/4	-	See Fig 9-1	0/0/4[#]
Evolve list - approved proposals			⚑5	⚑5	⚑5	⚑5	20	0/0/20	-	-	-	-	-	-	"	-
Maintain list - pending proposals			2	2	2	2	8	0/0/8	-	-	-	-	-	-	"	-
Prioritize resource proposals			⚑8	⚑8	⚑8	⚑8	32	(0/0/20)	0/0/2	0/0/2	0/0/2	0/0/2	0/0/2	-	"	0/0/2[#]
Subtotal - Accelerated	18	22	56	111	170	170	547	7/4/102	2/4/88	2/1/31	2/3/81	2/4/135	2/3/43	-	"	1/3/27
Subtotal - Redirected	(0)	(10)	(154)	(164)	(165)	(165)	(658)	(0/10/648)	-	-	-	-	-	-	"	-
Total	18	32	210	275	335	335	1205	7/14/750	2/4/88	2/1/31	2/3/81	2/4/135	2/3/43	-	"	1/3/27

⚑ Completion of basic activity.
— — — Signifies the effort/cost to maintain the files in reasonably current status and as practicable.

Note: Accelerated activity/funds - open figures; Redirected activity/funds - in parentheses.

Chapter 9. Work Program Summary, Alternatives, and Recommendations

This chapter provides perspective and highlights of work programs, and basic factors for consideration by the Legislature and Governor as they weigh the alternatives and recommendations. In addition, the overall work program needs and potential sources of funding, coordinated budgeting, and highlights of Redirection and Acceleration in the recommended Planning and Review Process are presented.

ALTERNATIVES FOR MAJOR ACTIVITIES AND THEIR COMPONENTS

In response to the legislative interest in considering alternatives, innumerable potentials could be set forth, each involving several assumptions. Certain alternatives are indicated in Chapters 2 - 8 for the major activities and components, but for consideration by the Legislature and Governor, the following types of broader alternative considerations are offered.

Alternative Process Activities

Some or all of the five major activities and/or their components could be selected for implementation. Such choices could be made initially, but in a real sense they will come as a result of progressive experience, review, and adjustments to whatever Process is initially approved. Certain responsibilities are quite "incumbent" on the state to fulfill. An example is in Project and Program Reviews for federal proposals now operational under the A-95 process discussed in Chapter 5. Other activities, such as a fuller State Project Planning and Design effort, are more elective in nature. The ability to implement given major activities or components may depend in part on the availability of federal as well as other funds and on the availability of other programs that would assist the state in achieving its water management goals.

Alternatives of Staged Initiation

Presuming adoption of the entire Process, there are alternatives in staging initiation for portions that can be deferred. As an example, there could be a decision to initiate an activity only on a limited basis with increases later, or defer its initiation to a later date. Any such choices should not ignore the basic importance of some major activities and components as contrasted to the evolving nature of others within the Process.

Alternatives of Scope

Pending more explicit guidance from the Legislature and Governor, it is not practicable to agree on scoping for some of the activities or components. Only through continued experience with the Process and

added guidance can final decisions on scope be made. It is recognized that for some activities, particularly the Policy Issue Analyses, there will be the need to develop and present to the Legislature and Governor some preliminary reports and recommendations for consideration. They might elect to act on legislation with or without a recognition for later amendatory action; or, they might make available added funding and directives for more in-depth data and analyses before enacting any legislation. Particularly through active, continuing communication among the Legislature, Governor, and agencies there is the opportunity to match legislative-executive objectives and the agencies' technical responses as to practicable minimum limits of study detail, timing, and funding to best define work programs and schedules.

CONSIDERATIONS FOR POTENTIAL FUNDING

State, federal, and other sources of funding to implement the State Water Planning and Review Process must be considered, because of the many interests and multiple interactions in resource activities.

State Objectives and Action

The greatest share of Nebraska's current resource activity funding is in the operational budgets and programs of the several agencies. Most notable are data collection and documentation, water resources research, technical guidance and assistance, and various forms of grant and loan assistance. Much smaller in magnitude are the planning budgets and programs, and they now affect directly only a few agencies. Earlier discussion has focused on the planning activities and budgets of the Natural Resources Commission, which include highly significant allocations to the Department of Environmental Control, other state agencies, and Natural Resources Districts for assistance and inputs to the water quality planning effort. The only other significant resource planning effort is in the Game and Parks Commission, which obtains a substantial part of its funding from non-legislative-appropriation sources. Most agencies make their contribution to the interagency coordination efforts without the benefit of specific funding or personnel allowances for this purpose.

In addition to total funding for water resource planning and review, the Legislature should consider the matter of interagency responsibilities and take action to provide appropriate funding and personnel to the agencies. Following the Legislature's directive for not only a redirected but an accelerated planning effort, recommendations are made later for increased program activity and funding to sustain an adequate Planning and Review Process. A start in this respect has been made by the agencies in taking the findings of this report into account and requesting supplemental funding and personnel in the 1980 budget to provide their scheduled inputs to the recommended Process activities.

Federal, Executive, and Congressional Actions

Historically, federal funds have been allocated to the states based on their applications and federal criteria under Title III of the 1965

Water Resources Planning Act. Currently, Nebraska receives about $50,000 from this source based on a federal appropriation of $3 million nationally. Authorization for this expired on September 30, 1978 but was extended by the Congress for one year.

As a result of a review of present federal water policy, initiated in May 1977, President Carter released a water policy message in June 1978. The recommended policies emphasize new thrusts in the water resources planning grant program, administered under Title III of the 1965 Act. These recommendations have important implications in terms of greatly expanded responsibilities for the states together with added federal assistance. Specifically, the President has proposed an increase in the annual federal appropriation to $25 million for the Title III program and an additional $25 million to establish and implement a water conservation technical assistance program. Action on the recommendations could be taken by the Congress in 1979.

Responding to a federal initiative and anticipating that the Congress will, as a minimum, extend the Title III funding assistance to states for planning, Nebraska has made application for an allocation of funds in F.Y. 1980 which may provide $100,000, based on an assumed $5 million national appropriation. When the Congress acts on the President's recommendations Nebraska may have the opportunity to justify and request significantly greater levels of assistance. The justification and use of all such funds as are made available is fully consistent with and would help fulfill the State Water Planning and Review Process work program.

Other Funding Sources

In recent years the state and its agencies have received funds from other nonfederal and federal sources for water and related land resource planning and research. Illustrations are a cooperative groundwater recharge applied research effort of the University of Nebraska, Natural Resources Commission, and U. S. Geological Survey which has been conducted with major funding assistance from the Old West Regional Commission; also soil surveys funded by the state with assistance from the Old West Regional Commission. Significant portions of the water resources research program at the University of Nebraska are planning related and most are management related. They occur because of the state funding and federal funding by the Office of Water Resources Technology. State agencies are assisting the Natural Resources Districts and other entities in special investigations with funds which the districts provide. Special resource studies funded wholly or primarily with federal funds result in major planning results for the state. For these studies there often is the opportunity to participate directly and to attain even added state objectives with limited state funding. Current examples have been described in Chapter 5. Nebraska participates regularly in activities of the Missouri River Basin Commission which is charged with the general coordination of federal, state, interstate, local, and nongovernmental plans for water and related land resources.

While not wholly predictable, funds from these sources are allocated where there are demonstrated needs and well conceived programs that justify the allocations. Several elements of the Process would

lend themselves to such means of funding assistance, particularly where the state could make some monetary and in-kind input. All such activities are among those to be considered as a part of the Process.

Coordinated Budgeting

Currently the resource planning activities of state agencies are accomplished under their respective budgets without any coordinated budgeting effort. To realize the fullest benefits of the Planning and Review Process, it is necessary to proceed under some form of coordinated budgeting.

Fulfillment of the objectives in the Process will involve generally interagency activities and mutual input and results. For these there should be developed a unified, coordinated budgeting procedure reflecting multi-agency inputs and commitments for agency participation. This can take one of two or more forms.

One would involve the designated coordination agency seeking and allocating the total funds appropriated by the Legislature, and having the Governor's support. This would have, perhaps, the greatest assurance of consistent results in a balance of agency capabilities if the resulting total appropriation should be equal, be less than, or exceed the coordinated request.

A second form could utilize coordinated budgeting, with each agency seeking its respective share to participate in the interagency activities in addition to its regular operating funds. This option could result in individual agency appropriations not conforming to the overall balance contemplated in the coordinated interagency budget.

As the proposed budgets are considered by the Legislature, equal attention must be given to the agencies' need for personnel to accomplish the added work. They have tentatively scheduled the redirection of the efforts of certain personnel to Process activities because of the priorities indicated by the Legislature. However, normal statutory activities must be restored as quickly as possible, and the responsibilities added by the Process require the addition of qualified, technical personnel to accomplish the scheduled work. The specific personnel requirements and personnel service limitations associated with the accelerated funding for F.Y. 1980 must be considered by the Governor and the Legislature in reviewing supplemental budget proposals. In the future, such considerations will become a part of the normal, coordinated budgeting procedures.

RECOMMENDED WORK PROGRAM

Development of the Planning and Review Process took many possible activities into account, but the final consensus reduced these to the five major activities, together with Overall Coordination, Administration and Management, set forth on Figures 2-1 and 2-2 in Chapter 2.

While initiation in all respects might not be practicable at this time, analysis demonstrated the basic importance of all of these five major activities in providing a complementary, effective Process to guide and facilitate state decisions and management in this field. Thus, it is recommended that all five activities be approved as desirable parts of the Process irrespective of whether some portion may have to be deferred in terms of its funding and initiation.

Schedule and Funding

In Legislative Resolution 300, the Legislature requested a work plan including work activities, schedule, priorities, agency responsibilities, and personnel and other resource requirements. Figure 9-1 presents the recommendations in these respects in perspective form, supported by similar coverage of more detail in Chapters 4 through 8.

The studies to respond to the Legislature's focus on policy issues are listed in order of priority, to be accomplished and with preliminary and completion reports as flagged. Funding amounts shown for F.Y. 1979 reflect the $150,000 already appropriated together with $19,000 of "Redirected" activity and funding. For each major activity, Total, Redirected, and Accelerated funding requirements are shown. Total funding is the sum of funding requirements for the Process activities, excluding the cost of data that would normally be made available in any event. Redirected funds are those normally budgeted for other activities that could be utilized for Process activity by temporarily deferring, or sacrificing, the regular activity. Accelerated funding is the added funding for the Planning and Review Process over and above that made available by Redirection.

Funding for F.Y. 1980 aggregating $82,000 must be considered as Redirection from the original funding in the existing agency budgets. Acceleration represents an added $246,000 to be considered in supplementary budget requests of affected agencies. Requirements can vary depending on whether all or part of the total recommended program is approved and funded. Estimates for the later fiscal years ending in F.Y. 1984 are to provide near-term perspective and are subject to revision when the Legislature and Governor act on the recommendations. Their actions will give definite form to the Process and thus provide added guidance and direction to the agencies for all aspects of program implementation. Agency funding has been estimated for F.Y. 1979, F.Y. 1980, and as "balance scheduled". Some agencies contemplate one degree or another of "Redirection" in deference to the high priority Policy Issue Analyses. These will require added consideration once the makeup and total magnitude of the Process is known. Notations to Figure 9-1 focus on the current state and federal budget situation for Comprehensive Planning in F.Y. 1980 for continuing work.

For full implementation the estimates of Figure 9-1 show accelerated funding increasing to about $445,000 in F.Y.'s 1981-84. This would complement the work/funding potential for possibly $290,000-$340,000 shown for these years as "Redirected". Most of this represents a shift from current Comprehensive Plannning to the recommended Process activities.

Recommended Funding by Source

The estimates of Figure 9-1 provide for total planning/review needs and contemplate possible funding from state and federal (Title III) sources. Pending Congressional consideration and action on increased funding recommended by the President as discussed earlier in this chapter, it has been assumed that the federal funding to Nebraska will continue at the $50,000 level as a minimum. Those funds potentially available from "other" sources can be determined only over time and as the Process takes approved form and becomes operative. Generally, any funds realized from "other" sources will augment those otherwise available in permitting added progress toward objectives in the Process; also on special efforts found to be urgent needs and meriting favorable responses from such sources.

HIGHLIGHTS OF REDIRECTION AND ACCELERATION

Responding to the Legislature's request but also to other needs known to those making the analyses, the preceding recommendations would result in major changes in the current planning structure and more effective water resource management in Nebraska. In certain respects the recommended Planning and Review Process would only organize and better coordinate activities that are related but are now accomplished unilaterally. Other recommendations would result in modified or new activities to complement those already existing in providing an improved basis for resource decisions and management by the Legislature and Governor, and by the responsible state agencies and resource entities.

Concerning Redirection there is major emphasis on the analyses required to fully assess and report to the Legislature alternatives and recommended policies and means of resolving water and water related resource problems. These are to be accomplished on a priority basis over the next five or six years. The Project and Program Reviews, now variously accomplished in one form or another or by default, would be better organized and better coordinated to provide adequate responses and initiatives.

Base Activities in many respects would provide the supporting activity for the others recommended, its usefulness increasing over time as the coverage and adequacy attained reasonable status. Within the overall form provided, there is the opportunity to feel out and progress steadily in perfecting this portion of the Process, dependent on the funds and personnel that can be allocated. The reformulated federal water policy and funding potentially available to the states as discussed earlier in this chapter may facilitate greatly the ability to implement this major activity. Also, they would provide the Natural Resources Districts and other resource entities with a support base for more detailed local planning in their respective areas. Adequate, loose-leaf working and reference files can be developed for all areas of

the state sooner than appears possible in following the conventional basin approach. The combination of the planning/management support base together with the content and annual publication of listings of approved resource proposals, prioritization of resource proposals, and MRBC publications in these respects would make unnecessary the continued preparation and publication of the Status Summary.

Acceleration will come as a result of several changes---better state coordination and guidance, compatibility with impending federal policies and program procedures, annual and near-term coordinated programming and budgeting with Legislature/Governor/local support, and finally increased funding and personnel from state, federal, and other sources. Inherent in all of this is the redirection, oversight, and guidance by the Legislature and Governor to result in more effective administration by the agencies. Most important, through active referral and coordinated responses by the agencies they can best fulfill their delegated responsibilities and also provide the Legislature and Governor with adequate bases for their decisions in attaining improved water management.

Figure 9-1 Recommended Work Program - Nebraska State Water Planning and Review Process

Major Activity & Component	F.Y. Schedule & Funding ($1,000)							Agency Funding - 1979/1980/Balance Scheduled ($1,000)								
												IANR				Consult
	79	80	81	82	83	84	Sum	NRC	DWR	DEC	GPC	CSD	WRC	Other	SOPP	& Other
Policy Issue Analyses & Recommendations																
Instream Flows	50	115	48	87			300	16/24/10 (0/16/39)	4/20/10	(5/10/2)	21/31/46	0/7/10 (1/3/10)	0/2/1 (0/2/0)	3/0/7	✓ ✓	✓ #
Water Quality	8						8	4/0/0	✓	(4/0/0)	✓	✓	✓			✓ #
Groundwater Reservoir Management	57	81	40				178	3/8/1 (0/5/9)	1/2/0 -	✓ -	6/0/0 -	23/20/6 (7/20/3)	9/4/1 -	1/3/6 -	✓	5/19/14 ✓ #
Water Use Efficiency			55	55	65	65	240	✓	0/0/10	(0/0/25)	✓	0/0/30	0/0/95* (0/0/80)	See WRC	✓	✓ #
Surface & Groundwater Rights System	14	40	86	27			167	5/6/7 (0/4/24)	0/6/8 -	✓ -	0/0/12 -	0/4/6 (0/4/6)	0/3/17 (0/3/0)	9/10/13 -	✓	0/0/20 ✓ #
Municipal Water Needs			20	30	20		70	0/0/2 (0/0/6)	0/0/2 -	(0/0/6) -	0/0/2 -	0/0/4 (0/0/8)	0/0/3 -	- -	✓	0/0/37# -
Supplemental Water Supplies		17	143	55	30		245	0/1/12 (0/0/44)	0/5/18 -	(0/0/5) -	0/5/2 -	0/3/30 (0/3/25)	0/0/9 -	0/0/19 -	✓	0/0/64 ✓ #
Interbasin Water Transfers				20	35	30	85	0/0/10 (0/0/43)	0/0/9	(0/0/3)	0/0/7	(0/0/4)	0/0/6	0/0/1	✓	0/0/28
Weather Modification					10	20	30	0/0/2	0/0/1	(0/0/1)	✓	✓	0/0/1	-	✓	0/0/25θ ✓ #
Subtotal	129	253	392	274	160	115	1323	28/64/209	7/33/58	9/10/42	27/36/69	31/64/142	9/14/213	13/13/46	-	5/19/162
Redirected	(17)	(70)	(166)	(104)	(70)	(33)	(460)	(0/25/165)	-	(9/10/42)	-	(8/30/86)	(0/5/80)	-	-	-
Accelerated	112	183	226	170	90	82	863	28/39/44	7/33/58	-	27/36/69	23/34/56	9/9/133	13/13/46	-	5/19/162
State Initiated Problem Analyses/Area Planning S	5	16	84	140	170	200	615	5/10/269	0/1/65	0/0/30	0/2/75	0/2/80	0/1/25	-	0/0/30	0/0/20#
R	(0)	(0)	(22)	(45)	(60)	(88)	(215)	(0/0/215)	-	-	-	-	-	-	-	-
A	5	16	62	95	110	112	400	5/10/54	0/1/65	0/0/30	0/2/75	0/2/80	0/1/25	-	0/0/30	0/0/20#
Project & Program Review S	2	2	46	46	46	46	188	0/0/46	0/0/28	0/0/22	0/0/20	0/0/20	0/0/20	-	2/2/8	0/0/20#
R	(2)	(2)	(2)	(2)	(2)	(2)	(12)	-	-	-	-	-	-	-	(2/2/8)	-
A	0	0	44	44	44	44	176	0/0/46	0/0/28	0/0/22	0/0/20	0/0/20	0/0/20	-	0/0/0	0/0/20#
State Project Planning and Design	Approve activity but defer initiation.															
Base Activities S	18	32	210	275	335	335	1205	7/14/750	2/4/88	2/1/31	2/3/81	2/4/135	2/3/43	-	-	1/3/27#
R	(0)	(10)	(154)	(164)	(165)	(165)	(658)	(0/10/648)	-	-	-	-	-	-	-	-
A	18	22	56	111	170	170	547	7/4/102	2/4/88	2/1/31	2/3/81	2/4/135	2/3/43	-	-	1/3/27#
Coordination, Administration, & Management S & A	15	25	25	25	25	25	140	15/25/100	-	-	-	-	-	-	-	-
Planning & Review Process Total	169	320	757	760	736	721	3471	55/113/1374	9/38/239	11/11/125	29/41/245	33/70/377	11/18/301	13/13/46	2/2/38	6/22/229
Redirected	(19)	(82)	(344)	(315)	(297)	(288)	(1345)	(0/35/1028)	-	(9/10/42)	-	(8/30/86)	0/5/80	-	(2/2/8)	-
Accelerated	150	246	413	445	439	433	2126	55/78/346	9/38/239	0/1/83	29/41/245	25/40/291	11/13/221	13/13/46	2/0/30	6/22/229

P Preliminary report. ▶ Completion of activity/report. ✓ Signifies review of policy implications where activity/funding is not otherwise involved.
State Department of Health. θ State Department of Agriculture, or Institute of Agriculture and Natural Resources, or other state agency designated upon initiation of study. * Includes all activities and divisions in IANR except CSD.

Note: Acceleration (or new) activity/funds-open figures; Redirected activity/funds - in parentheses. S-Subtotal, R-Redirected, and A-Accelerated funding. State funding for Comprehensive Planning in 1980 budgeted at $207,000 and federal Title III planning assistance funding at $50,000-total $257,000. (See text Chapter 9)