

**Annual Report and Plan of Work  
for the  
Nebraska State Water Planning and Review Process**

**Submitted to the Governor  
and Legislature by the  
Director of Natural Resources**

**September 15, 1998**

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I. HIGHLIGHTS – ANNUAL REPORT AND PLAN OF WORK FOR THE  
NEBRASKA STATE WATER PLANNING AND REVIEW PROCESS - 1998

- In FY 99 the Commission should complete a multi-year effort on compiling Digital Orthophoto Quads and Digital Elevation Modeling for the state. These should form the basis for a wide variety of future mapping and geographic information system capabilities.
- Work on digital county soil surveys is continuing. When completed to national standards in 2003 these will allow vastly expanded usage of the soil surveys by a greater number of users. It will allow soil surveys to be electronically transferred, layered and be used in conjunction with or as part of many other maps.
- In February 1998 the Commission's Comprehensive Planning Section assumed management of Nebraska's Flood Mitigation Assistance program. The program assists communities with flood mitigation planning and projects. Floodplain planning efforts also included writing and extensive distribution of the State of Nebraska Community Flood Mitigation Planning Guidebook. Initial work is also beginning on a State Flood Mitigation Plan.
- In FY 99 Commission planning staff are expected to provide the Commission Operations Division with major assistance in the mapping of flood prone areas.
- The Commission Report "Estimated Water Use in Nebraska, 1995" was distributed in June 1998. The U.S. Geological Survey cooperated with the Commission's Comprehensive Planning Section in completion of that report.
- The major Commission work elements have been completed for "Nitrate and Nebraska's Small Community and Rural Domestic Water Supplies: An Assessment of Problems, Needs, and Alternatives." The planning section's work element reports were sent to the study leader at the U.S. Bureau of Reclamation for incorporation into a final report expected in FY 99.
- The Commission was responsible for most of the writing of "An Analysis of Natural Resources District: Program Effectiveness, Cost Effectiveness, Duplication of Responsibility and Other Options for Facilitating Property Tax Relief," a report prepared in accordance with LB 1085 (1996). The planning staff assisted significantly in that effort.
- The Commission is providing extensive mapping assistance, in-kind planning assistance and cash to the Lower Platte River and Tributaries feasibility study. The study is a major multi-agency effort initiated in 1998 to investigate flood damage reduction and water resources problems and solutions in the Lower Platte River Basin. The planning section is also providing office space and supervisory assistance for a position designed to develop a geographic information system for the study. The Commission provides \$125,000 in annual pass through funds for the study.
- The Commission planning section is also providing office space and supervisory assistance for a geographic information system and data base position for the Platte River Cooperative Hydrology Study. That study is an effort to understand the hydrological and geological conditions of the Platte Basin in Nebraska, upstream of Columbus. The Commission planning staff are also providing other assistance to the study. It is intended to assist Nebraska in meeting its obligations under the Platte River Cooperative Agreement and to assist area NRDs among other uses.

- Commission planning and data bank staff made a wide variety of information available on the world wide web. Commission personnel provided extensive web page assistance to other state agencies and natural resources districts.
- FY 99 work is expected to include major formal discussion of potential future planning process activity and direction.
- Commission planning staff provided specialized assistance through a number of activities such as preparation of DEM/DOQs with alluvial sand and gravel coverage for a Republican River Basin mapping project, work on a Central Platte River Operational Model, or mapping assistance for the Dry Creek and Lost Creek Basins.

## II. INTRODUCTION

The Nebraska State Water Planning and Review Process was initiated in 1978 to redirect and accelerate Nebraska's water planning efforts. This Annual Report and Plan of Work summarizes work completed as part of that process in FY 98 and presents a work program and budget for future fiscal years. This is a report of the Director of Natural Resources and is submitted in compliance with Nebraska Revised Statutes Sec. 2-15106.

In recent years the major focus of the state water planning and review process has been on natural resources information management. Work of the Natural Resources Commission's (NRC) planning section is now closely coordinated with the work of the Commission's Data Bank to produce a variety of maps and other information useful in addressing the state's natural resources problems. Geographic information systems and computer assisted data manipulation and modeling continue to be an integral part of the long range planning and management of the state's soil and water resources. The work items in this report reflect that emphasis.

One major management activity expected in FY 99 is review of planning process activity and direction. This is expected to take the form of formal staff discussion sessions on potential future planning activity. It may also at some point include agencies advisory to the planning process. The major Commission planning emphasis in recent years has been on development of geographic information system base layers and expertise as well as providing assistance to planning efforts needing those capabilities. Commission led planning efforts have received a lower priority during that development. Incorporation of those capabilities into Commission led planning studies and the future emphasis of that planning will be discussed.

The State Water Planning and Review Process work items related to information management are found primarily in Section "D. Basic Planning Activity". Many of the information management products and activities found in this report are in fact co-products of the Commission's Data Bank and the Planning Section. This is a report of planning activities and includes no budgetary material or programmatic information about Data Bank initiatives. However, the Data Bank does have a major role in almost all of the information management activities listed. In the past year the planning section has also undertaken extensive cooperative activities with the Commission's Floodplain Management Section.

## III. STATUS REPORT ON COMPLETED AND ONGOING WORK

### A. POLICY ISSUE ANALYSIS

The Policy Issue Analysis Activity is intended to provide the Governor, the Legislature, and other decision makers with policy alternatives on Nebraska water problems and issues. By 1986 ten studies comprising a total of 18 volumes had been completed as part of this activity. Since that time no policy issue studies have been initiated and none are planned at this time.

### B. PROBLEM ANALYSIS AND AREA PLANNING

The Problem Analysis and Area Planning Activity is designed to allow study of specific Nebraska water problems in a flexible format tailored to the particular problem or problem area. Various agencies may be involved in these studies. In most cases this involves Commission participation in cooperative studies.

## 1) USGS Streambed Degradation Studies

The Natural Resources Commission is one of the cooperators in a 23-county \$1.2 million dollar study entitled "The Effects of Channel Instabilities on Bridge Structures and Floodplain Resources in Eastern Nebraska." The study is being conducted by the U.S. Geological Survey and is to evaluate and quantify past, present, and future installations in the 23 county loess area of eastern Nebraska. The Natural Resources Commission is committing \$25,000 per year to the study over a four-year period. Agreements to initiate the study were effective in October 1995 and its scheduled completion date is September 2000. Other cooperating agencies include: the Nebraska Department of Roads, the Lower Platte South Natural Resources District, the Papio-Missouri River Natural Resources District, the National Sedimentation Laboratory, and the U.S. Army Corps of Engineers. The U.S.G.S. is also conducting a smaller scale study of gradation trends for western Nebraska counties not covered in the other study.

Study products are to include: (1) a GIS data base of potential scour-critical index sites, (2) basin maps of the stage of channel evolution for 17 counties, (3) basin reports on gradation trends and productive relations on future channel geometry, and (4) separate papers/reports on erosive power, channel response modeling and urbanization study.

## 2) Platte River Area Planning Studies

A variety of studies, generally intended to improve understanding of the Platte River System, have been initiated by a variety of agencies. Commission staff have participated in most of those studies. Work under a Platte River Cooperative Agreement and work on the Lower Platte Feasibility Study were both initiated in FY 98. They are expected to take increasing amounts of planning staff time in the next few fiscal years. Commission Planning staff have participated in the following Platte River oriented efforts over the last year:

- a) Platte River Cooperative Agreement Studies
- b) The Platte River Cooperative Hydrology Study
- c) The Lower Platte River and Tributaries Feasibility Study
- d) The Middle Platte Eco-Risk Assessment
- e) Nebraska vs. Wyoming Hydrologic Assistance
- f) Platte River Corridor Alliance Activities

### a) Platte River Cooperative Agreement Studies

On July 1, 1997 the governors of Nebraska, Colorado and Wyoming and the U.S. Secretary of Interior signed a cooperative agreement outlining a proposed basinwide recovery program for endangered species in the Central Platte Basin. The Nebraska Director of Natural Resources serves as Nebraska state representative on the governing body for the Agreement. The program proposes to reduce shortages to target flows for endangered species at Grand Island by: (1) operating Kingsley Dam and related facilities in Nebraska to store a portion of the inflows to Lake McConaughy as well as environmental water made available from upstream projects in an environmental account that would be managed by the USFWS, (2) modify Pathfinder Reservoir in Wyoming to store water in another environmental account to be similarly managed, and (3) construct and operate the Tamarack Project in Colorado. However, these changes will only supply a portion of the needed water. The remainder would need to be obtained through water conservation and water supply projects. Commission planning staff have been active in committees trying to determine the nature and feasibility of potential water conservation and water supply options.

In FY 98 planning staff effort included work for the Cooperative Agreement Subcommittees in water and land. Commission staff prepared a lengthy Water Conservation/Water Supply notebook for use by the consultant for a Water Conservation Study being undertaken by the Water Committee. The notebook supplied annotated bibliographic material and contacts for Nebraska water conservation/supply questions.

An additional responsibility under the agreement is for each state to mitigate, offset or prevent any new depletions to the rivers target flows as part of the proposed program. This will require development of a mitigation plan.

In future fiscal years Commission planning staff are expected to contribute to development of the state mitigation plan, contribute to the water conservation plan, assist in land use delineation, help with land use and mapping and perhaps help with review of an Environmental Impact Statement being prepared by federal agencies in a separate process. Land use analysis and planning for mitigation of future water uses could conceivably become a major activity for Commission staff, depending upon future direction from the agreement governing body and Nebraska state officials.

The Commission is also serving as the agency through which the state's financial obligations for the term of the Cooperative Agreement are met. The appropriations to the commission for FY 98 and 99 for that purpose totaled \$450,000. Another \$250,000 will be sought for FY 2000. Of the three year total of \$700,000, \$260,000 is obligated for Nebraska's share of the Water Conservation and Supply Study being conducted by Boyle Engineering, Inc. of Denver. That study is scheduled to be completed in early FY 2000. Each of the other two states has also entered into a contract with Boyle for the same amount. The remaining funds will be used for other expenses approved by the Governance Committee. Among those expenses are the costs of the services provided by the Executive Director, Dale Strickland, a consultant from Cheyenne, Wyoming. The services provided by Mr. Strickland's firm are funded 50% by the federal government (Department of Interior), 20% by Colorado, 20% by Nebraska, and 10% by Wyoming. At present, Nebraska's share of those expenses is projected at around \$40,000 per fiscal year but those costs could increase to pay for additional services being discussed and considered by the Governance Committee. Several other activities that would require cash outlays by the states also have been proposed and will be discussed by the Governance Committee in the coming months. Nebraska's share of the cost of those would be 20% unless special circumstances dictate different cost-shares by the parties.

b) The Platte River Cooperative Hydrology Study

The Platte River Cooperative Hydrology study is a three-year cooperative effort to develop an understanding of the hydrological and geological conditions in the Platte Basin in Nebraska upstream of Columbus, Nebraska. A group of Nebraska interests have joined together to develop necessary data, analyses, modeling, and other information which when completed will;

1. Help Nebraska to meet its obligations under the Cooperative Agreement,
2. Enable natural resources districts (NRD's) along the Platte River to provide appropriate regulation and management,
3. Provide Nebraskans with a basis to develop policy and procedures related to ground water and surface water,
4. Enable Nebraskans to analyze proposed activities of the Cooperative Agreement and/or programs in Nebraska.

Study objectives include:

1. Collecting existing data and placing into a credible/appropriate database and fill in with new data as necessary.
2. Developing preliminary models to identify data gaps.
3. Collecting and adding supplemental data as necessary to provide a credible database.
4. Developing linked, sub-regional models to cover the Platte basin in NE.
5. Establishing credible models.
6. Using models.

The Natural Resources Commission is one of the 10 project sponsors of the study. The others are the Central Platte, Twin Platte, Tri-Basin, North Platte, and South Platte Natural Resources Districts, Game and Parks Commission, Department of Water Resources, Nebraska Public Power District, and Central Nebraska Public Power & Irrigation District. The study is expected to cost a total of \$1.6 million. A planning staff member is the Commission's official representative and a member of the technical staff coordinator's committee. That Committee which is drafting the work plan and advising the sponsors on technical matters. Total scheduled Commission effort on the study is expected to have a value of \$304,337, although \$245,800 of that amount is for past and future work by the Commission's Survey and Photogrammetry Section on baseline groundwater elevations and thus is technically outside the planning process. That work involves surveying locations and elevations of groundwater monitoring wells to help establish the current water table. The Commission is to receive payment for \$97,900 of that work, while the remainder is to be in-kind effort. Remaining Commission work is expected to involve planning staff in river stage and profile analysis, analysis of soils, runoff, recharge and consumptive use, and data collection. The Commission may house and supervise some of the contract staff involved in the modeling portions of the study. A decision has not yet been made on whether to bid Commission planning staff time to complete the land use inventory portion of the project.

In FY 98 Commission planning staff assisted with committee responsibilities and work plan development. The Commission's survey and photogrammetry division completed most horizontal and vertical control work for surveying elevations and elevation controls for 750 monitoring wells.

In FY 99 Commission planning staff will continue to meet with other sponsors to help review and direct progress. In-kind Natural Resources Commission services for the last two years of the study are to be about \$8,800 per year. The Commission has reached an agreement with the Hydrology Sponsors to provide office space, supplies, guidance and supervisory assistance for a geographic information system/database management specialist for the study beginning in late summer 1998. That component of the study will take about 2½ years and is to include use of a geographic information system display and use hydrogeologic, hydraulic, and water use information in the basin. A graphical user interface will be used to make the information available to any party. The database and Arc/Info coverages developed as part of the study will be housed on NRC hardware and the NRC web server will be used to deliver information to the public.

c) Lower Platte River and Tributaries Feasibility Study

In January 1998 agreements were signed initiating work on the Lower Platte River and Tributaries Feasibility Study. The \$2.7 million study to investigate flood damage reduction and water resources problems and solutions in the Lower Platte Basin is being led by U.S. Army Corps of Engineers. In addition to the Commission, cooperators include: the Lower Platte South NRD, the Pappio-Missouri River NRD, the Lower Platte North NRD and the Lower Platte River Corridor Alliance. The Commission is expected to provide \$125,000 per year in pass through funding over a four year period and a total of over \$200,000 in in-kind services. The study is scheduled for completion by September 30, 2001. The feasibility study area includes the Platte River from Columbus to its mouth.

The study is a follow-up to an earlier reconnaissance level study and is to provide a variety of structural and non-structural options and recommendations. In addition to examining five specific structural options it will solicit public suggestions on natural resources management issues for the area and address water quality, land use and public policy concerns in the watershed. Commission work will include extensive cross-sections, surveys and mapping to be provided by the Commission's Floodplain Management Division. Commission planning section assistance will include supervisory assistance for creating geographic information system products for the area, website assistance, assistance to the Corps in compiling community flood mitigation plans, assistance in evaluation of buildings in the floodway fringe for buyouts, report writing assistance, and assistance in environmental evaluation. Along with the Corps and the Lower Platte South NRD the Commission acts as a co-sponsor and serves on the executive committee for the project. The Lower Platte South NRD acts as primary administrator of funds. Half of project costs are a Corps responsibility with the state and local sponsors providing 25% cash and 25% in-kind match.

#### Work Completed in FY 98

In FY 98 Commission planning staff participated extensively in drafting the scope of work and a memorandum of understanding for the project. Extensive mapping and survey work was completed by the floodplain management division. Commission planning staff provided website development assistance and helped scope and begin work on the Geographic Information System and environmental restoration portions of the effort. Planning staff also provided assistance with administration and identification of public survey and focus group consultants.

#### Work Scheduled in FY 99-00

Commission floodplain division staff will continue to provide survey and mapping work in FYs 1999 and 2000. In-kind Planning Division assistance on the geographic information system portion of the study will also continue. This may take the form of providing office space and supervision for a position hired under contract for the feasibility study. Commission staff will also continue to provide assistance on the environmental portion of the study throughout the period. Commission Planning Division assistance on compiling community flood mitigation plans and identifying buildings in the floodway fringe will not begin until midway through FY 99 but is then likely to continue throughout the period. Commission Planning Division general in-kind work and assistance in administration will continue throughout the period.

This study received an appropriation from the Unicameral with an indication of intent to provide funding in future years. Continuing Commission cash contributions to this study are dependent upon future appropriations. The Commission has reached an agreement with the Lower Platte South NRD to provide office space, supplies, guidance and supervisory assistance for a geographic information system specialist for 1 to 1½ years beginning in late summer 1998. Work assigned to that position is to be focused on use of a GIS project to produce and display a selection of resource related maps that can be used to illustrate the assets, problems, and potentials of the Lower Platte River Corridor.

#### d) Lower Platte River Corridor Alliance

The Lower Platte River Corridor Alliance is an umbrella organization of state and local agencies working to foster the development and implementation of locally drawn strategies, actions, and practices to protect and restore the vitality of the river's resources. The major project supported by the Alliance to date has been the Lower Platte River and Tributaries Feasibility Study. However, the organization has a separate

purpose from the feasibility study and has been meeting on a semi-monthly basis. The Commission has provided the Alliance with assistance on their web page.

e) Middle Platte Eco-Risk Assessment

The Middle Platte Eco-Risk Assessment is intended to provide a variety of information on ecological risks, land and water management options and economic impacts associated with the Middle Platte Watershed. The effort is being directed by the U.S. Environmental Protection Agency. In FY 98 the Commission role was limited to reviews and a meeting with the Project coordinator. Environmental Protection Agency work on the study is expected to conclude by the end of 1998. Commission participation is expected to remain minimal.

f) Assistance in North Platte River Legal Disputes Between Wyoming and Nebraska

In FY 98 Commission planning staff provided a variety of assistance related to the legal dispute between Nebraska and Wyoming. That included:

- 1) Installing, updating, refining and maintaining the latest Central Platte river operational model.
- 2) Fulfilling the requests of consultants of the Nebraska Department of Water Resources consultants. Those requests were related to simulating Wyoming's impact on reservoir conditions, hydrogeneration, irrigation supply, and streamflows in the Big Bend area.
- 3) Providing technical explanations to the Department of Water Resources legal counsel and consultants.
- 4) Providing answers to technical questions raised by the State of Wyoming.

In FY 99 some additional assistance is expected. The case is scheduled to go to trial in February 1999. It seems unlikely that planning staff assistance will be needed after that time.

3) Republican River Basin Cooperative Activities

Commission planning staff have participated in a variety of activities/studies dealing with the Republican Basin in FY 98. These included:

- Preparing an aquifer saturated thickness map and percent of saturated thickness lost map of the Upper Republican NRD for processing their critical township data.
- Analyzing data provided by the Upper Republican NRD and calculating which townships meet the critical township criteria for them.
- Preparation of DEM/DOQ coverage with alluvial sand and gravel coverage for a special mapping project for the basin. This will assist in an NRC flow meter initiative.

The Commission legal division participated in separate activities involving the Republican Basin Coalition.

It is anticipated that planning staff will continue to assist the Upper Republican NRD with saturated thickness mapping and critical township calculations in future fiscal years. However, the likely scope of Commission work in the Republican Basin in the next few years is uncertain. It seems likely that

Commission staff could become involved in some manner in additional preparation of material relevant to the State of Kansas lawsuit on Republican River flows.

#### 4) Floodplain Planning Activity

In February 1998 the Commission's Comprehensive Planning Section assumed management of Nebraska's Flood Mitigation Assistance (FMA) program. The section also filled an open position with a new staff member whose primary duties are floodplain management planning. This position is to coordinate closely with the Commission's Floodplain Management Division, administer the FMA program, provide floodplain planning assistance to communities, develop a state flood mitigation plan, develop a community flood mitigation planning guidebook, and coordinate floodplain planning activities with other agencies.

The goal of the Flood Mitigation Assistance Program is to reduce claims on the National Flood Insurance Program (NFIP) insurance fund by funding impact-reducing projects in communities which show they are willing, through NFIP enforcement and a local flood mitigation plan, to mitigate their flood problems. Examples of mitigation projects eligible for funding under the FMA program include: acquisition, relocation, flood proofing, demolition, elevation, and minor structural projects. Federal assistance provides funding for the plan development and project components of the FMA program as well as development of the State Flood Mitigation Plan.

#### FY 98 Activity

The initial proposals for the Nebraska FMA Program were developed by the Commission's Floodplain Management Division in July 1997. In September 1997 the state received a \$143,600 flood mitigation grant with a 25% state/local cost-share requirement. Most of the allocation was or will be used for technical assistance and acquisition in Beatrice. Beatrice has also been selected by the Federal Emergency Management Agency as a Project Impact demonstration city. In early 1998 planning staff prepared a State of Nebraska Community Flood Mitigation Planning Guidebook. The Guidebook was mailed to communities in July. Contacts were made and work began on a FMA planning grant for Superior, Nebraska. Procedures were set up for grant applications in future year. Grant disbursement and tracking procedures were written for FMA grants. Initial community assistance was provided. Preliminary work began on a state flood mitigation plan. Planning staff also assisted in several projects of the Floodplain Management Division. This included considerable work on both flood modeling and on digitizing floodplain delineation maps.

#### Activity Scheduled in FY 99-00

Extra Planning grant money is likely to be provided through the Department of Economic Development (Community Development Block Grant Funds) and possibly the Nebraska Emergency Management Agency (Hazard Mitigation Grant Program Funds). If a number of Nebraska communities elect to complete community flood hazard mitigation plans as a result, significant time is likely to be spent in both administration of the program and in providing technical assistance to communities. Assistance will also be provided on community flood hazard mitigation plan developed in connection with the Lower Platte Feasibility Study.

Initial work on a State Flood Mitigation Plan is expected to continue. However, completion of the plan and its database are not scheduled until September 2002. Other activities will involve coordinating floodplain planning with other agencies such as the Department of Roads and identifying opportunities. There will also be major new assistance to the Floodplain Division on mapping of flood prone areas and

upon request floodway analysis. In addition there will be exploration of how agency Geographic Information System capabilities can be used to assist in floodplain planning. Use of those capabilities in planning efforts will be a growing priority in future fiscal years.

5) Nitrate and Nebraska's Small Community and Rural Domestic Water Supplies: An Assessment of Problems, Need and Alternatives

The Bureau of Reclamation's "Nitrate and Nebraska's Small Community and Rural Domestic Water Supplies: An Assessment of Problems, Needs and Alternatives" is a three-year study intended to provide an analysis of the extent of possible nitrate related water supply problems in the state. In May 1996 the Commission and the Bureau of Reclamation signed a memorandum of understanding which requires 50% matching state staff time for the study. A final report is expected by December 31, 1998.

Commission staff work in FY 98 included extensive data gathering, completion of a lengthy task report analyzing socio-economic/legal-institutional/environmental conditions, and completion of a report on potential alternatives and their impacts. Commission staff also closely coordinated with Bureau staff and assisted with their data requests.

No meetings of the study Public Advisory Group were held in FY 98, although Commission staff kept that group informed of progress and supplied them with interim reports. All Commission task reports for the study were submitted Bureau writers by early August 1998 and the Bureau began assembling a draft final report. Public advisory group review of drafts is expected in the fall of 1998.

6) Nebraska Interagency Stream Management Strategy

The Nebraska Interagency Stream Management Strategy is a multi-agency effort to coordinate stream management efforts. This includes coordination of research efforts and use of funds as well as improvement of information transfer and facilitating consultations. The effort is led by the Nebraska Game and Parks Commission and the Nebraska Department of Environmental Quality.

The Commission's major contribution to the effort was compilation of a 37-page directory entitled "Selected Nebraska Stream Management and Riparian Zone Related Databases" in FY 97. That was the only major Commission work scheduled for the effort. The lead agencies temporarily discontinued effort on the strategy in FY 98. However, current expectations are that it will be completed in FY 99.

7) Analysis of Dry Creek and Lost Creek Basins

In late FY 98 the Rainwater Basin Joint Venture began an effort to address problems related to high water tables, flooding and siltation in the Dry and Lost Creek Basins in Central Nebraska. Commission planning staff attended meetings and provided mapping assistance for that effort. One of the Commission efforts helped provide a groundwater levels map that was useful in problem identification. It is expected that some continuing assistance will be provided in the next fiscal year.

### C. PROJECT AND PROGRAM REVIEW ACTIVITY

This activity includes both individual reviews and service on a wide variety of review and program planning committees. In past years time devoted to this category accounted for about 10% to 15% of the planning process budget. It includes both smaller one time reviews of some projects and programs as well

as larger longer-term types of review activity. Some of the major longer-term work activities in this category are:

- 1) Nebraska Resources Development Fund Reviews
- 2) LB 1085 Reports on Natural Resource District Operation and Organization
- 3) Waste Reduction and Recycling Grants Review Board
- 4) Environmental Trust Advisory Committees
- 5) Geographic Information System Steering Committee and Subcommittees
- 6) Forestry Stewardship Committee
- 7) FIFRA Advisory Responsibilities
- 8) Niobrara Scenic River Advisory Commission
- 9) Review of 404 Permit Applications to the U.S. Army Corps of Engineers
- 10) Nebraska Mandates Management Initiative
- 11) UNL Agronomy Board
- 12) Climate Assessment and Response Committee
- 13) Great Plains Foundation/Symposium

1) Nebraska Resources Development Fund Reviews

In FY 98 planning staff support of Nebraska Resources Development Fund activities included: 1) review of project proposals for Stevens Creek and Cedar Creek, 2) review of applications for Wakefield Levee, Skull Creek, and Powder Creek projects, and 3) preparation of the final draft of the Guidelines.

Activity levels in FYs 98 and 99 should be at the same level as the previous year. Work is expected to include: 1) review and publish Guidelines, 2) review amended application on Weeping Water 7g to include recreational development, 3) review application for final segment of Gering Canal Flood Control project, 4) review proposal for Stage Creek near Pender.

2) LB 1085 Reports on Natural Resources District Operation and Organization

In 1996 the Unicameral directed the Natural Resources Commission to study the state's natural resources districts and make two reports to the Legislature. The first report "An Analysis of Natural Resources District Revenue Base, Board Sizes, and Potential for Boundary Changes or Consolidation" was forwarded to the Unicameral on September 1, 1997. The second report was due September 1, 1998. It includes an analysis of district cost effectiveness, program effectiveness, duplication of responsibilities and authorities, and other services or areas that could facilitate property tax relief.

The Natural Resources Commission members provided recommendations for the reports and appointed a committee that provided guidance on content. The Commission's planning staff was responsible for report writing and much of the research on each report.

3) Waste Reduction and Recycling Grants Review Board

One Commission staff member serves on the Department of Environmental Quality's Waste Reduction and Recycling Grants Review Board. The Board's review is used to assist the Director of the Department of Environmental Quality in making grant funding decisions. In April 1998 the Board reviewed 56 separate grant applications. Applications are given points in different funding categories according to a program priority system. Since 1992 there have been 266 projects receiving a total of over \$15.6 million.

#### 4) Environmental Trust Advisory Committees

The Environmental Trust Board, of which the Director of Natural Resources and two Natural Resources Commissioners are members, has formed technical advisory committees to help review grant applications. Commission staff, including a planning staff member, assist in project application reviews. Activity levels are expected to remain fairly level in upcoming fiscal years.

#### 5) Geographic Information System Steering Committee and Subcommittees

The Geographic Information System Steering Committee has adopted a number of priority initiatives for GIS application in the State of Nebraska. The development of digital orthophoto quadrangles (DOQs), vectorized soils databases and a hydrologic units database were identified as the top areas of interest. The NRC has embarked on the development of DOQs to the U.S. Geological Survey standards and developing a digital soils database to USDA NRCS Soil Survey Group (SSURGO) standards. Refinement of the NRC's hydrologic units/statewide basemap continue in cooperation with the Department of Environmental Quality and the NRCS. NRC staff continue to attend and contribute to steering committee meetings.

#### 6) Forestry Stewardship Committee

A Commission staff member serves on the Forestry Stewardship Committee. That committee advises the State Forester on policy and directions relevant to the Forestry Stewardship Incentive Program. The program distributes about \$75,000 annually to landowners for tree planting. Funds are distributed on the basis of priorities that include: field windbreaks, riparian areas, natural forests, and conservation plantings. The Walnut Council, the Woodland Owners Association, Prairie Plains Forestry Association and the Tree Farm Association are complimentary activities.

#### 7) FIFRA Advisory Committees

The Nebraska Department of Agriculture is responsible for administering the Federal Insecticide, Fungicide and Rodenticide Act in Nebraska under the provisions of the Nebraska Pesticide Act. The Commission has limited statutory and other advisory responsibilities related to the Act. In addition the Commission acts as the repository for the pesticides and groundwater database.

#### 8) Niobrara Scenic River Advisory Commission

The Director of Natural Resources represents the Governor on the Niobrara Scenic River Commission. The duties of that group have diminished since the completion of a management plan for the river and the formation of a Niobrara Scenic River Council. The Commission did not meet at all in FY 1998, but did have a joint meeting with the Council in July 1998. The Council is implementing the management plan and has been meeting on a monthly basis composed of a county commissioner and landowner from each county as well as representatives from the Nebraska Game and Parks Commission, the U.S. Fish and Wildlife Service, recreation interests and the timber industry. Commission efforts are expected to be minimal in future years.

#### 9) Review of 404 Permit Applications to U.S. Army Corps of Engineers

Landowners planning development in wetland areas must generally apply to the U.S. Army Corps of Engineers for a Section 404 permit for their project. The NRC is one of the state agencies that reviews those applications and provides advice to the Corps. Those activities continued in FY 98.

10) Nebraska Mandates Management Initiative

The Nebraska Mandates Management Initiative is a partnership process to help Nebraska communities more effectively manage federal and state mandates. The focus area for the initiative is water quality and environmental issues. The process is led by the Department of Environmental Quality and involves a number of agencies and provides technical and planning assistance to selected communities that wish to participate. Natural Resources Commission participation in this activity in FY 98 was minimal.

11) UNL Agronomy Board

A Commission planning staff member attends semi-annual meetings of the UNL Agronomy Board to provide advice to the UNL Agronomy Department about its program of instruction, research, and extension.

12) Climate Assessment and Response Committee

The Director of Natural Resources is a member of this committee that meets periodically throughout the year and reports to the Governor. Reports are made as warranted by climatic conditions; including but not limited to problems caused by the lack of moisture; drought conditions; or problems caused by excess moisture or flooding conditions.

One Commission staff member also serves on a subcommittee of this group; the Moisture Availability and Outlook Committee that meets throughout the summer to assess conditions across the state and provide a summary of this information to the Chairman of the Climate Assessment and Response Committee. An additional activity this year has been the participation in the Western Drought Coordination Council that resulted from the Western Governors' Association (WGA) Drought Report in November 1996. The Western Drought Coordination Council (WDCC) was established in June 1997.

The Director of Natural Resources has been active in an effort by the committee to address the coordination between state agencies to identify areas of the state where roadside haying should be permitted during extended periods of dry weather.

13) Great Plains Foundation/Symposium

The Great Plains Foundation has sponsored a continuing Ogallala Aquifer Symposium over the past four years. A planning staff member spoke at the 1998 symposium in Lubbock, Texas. That staff member also serves on the Foundation's Advisory Council.

D. BASIC PLANNING ACTIVITY

Basic Planning Activities provide the data base and management information necessary to plan natural resource related activities. In recent years this activity has been the focus of much of the Natural Resources Commission's water planning effort. It is closely coordinated with the work of the Commission's Data Bank. In addition to providing information to other agencies and interests, work in this activity is also used to support general planning activities, administer the planning process and review projects and plans.

## 1) Planning Information Base

### a) General

The planning information base has been the primary focus of Natural Resources Planning efforts for a number of years. The long term goal of the information base is to develop the capability to analyze the relationships of a wide variety of information in a geographic information system (GIS) environment. This includes data on soil characteristics, land use, surface and groundwater data, geologic characteristics, climate, socio-economic characteristics, forestry characteristics, hydrology and water use. The development of statewide databases for use by state, federal, NRD and local units of government will continue to have a high priority.

Natural resources needs can be better met by increased efficiency and effective use of natural resources data. Better techniques of information acquisition, processing, storage and use are required to accomplish that task. To that end GIS processing offers a tool for decision makers that combines multiple layers of information with the interactive capability of a relational database.

The products that will be and in some cases are being produced are as varied as the agencies that will use them. These include land use maps, soils maps, aerial photography with interpretations, satellite imagery with enhanced color, floodplain management information, water rights, well registrations, hydrologic information, and resources planning and environmental protection data. Applications of this information base will enhance state, federal and natural resources district management as well as city and county services and tax assessment. In the larger context the most important product is the better use of human expertise and experience to solve problems and coordinate complementary efforts between various levels of government.

ARC/INFO and ERDAS/Imagine softwares are the leading GIS applications softwares used by state and federal agencies for GIS processing, information exchange, modeling, and decision making. The system architecture developed by the NRC will readily fit with federal counterparts, including the Corps of Engineers, EPA, Fish and Wildlife Service, U.S. Forest Service, Consolidated Farm Services Agency, Natural Resources Conservation Service, National Park Service, U.S. Geological Survey, Bureau of Land Management and Bureau of Reclamation.

The NRC's GIS network is on the leading edge of GIS applications, interagency coordination and interagency data acquisition and sharing. These efforts will continue and support the priorities of the GIS Steering Committee. Additional initiatives will include global positioning system (GPS) satellite locational information and operations to better develop flood plain information, and statewide Digital Ortho-Quarter Quadrangle (DOQQ) maps. The production of digital orthophoto quadrangles (DOQs) and digital elevation models (DEMs) on a statewide basis is a major agency priority. Among other uses these DOQs and DEMs are being used by NRC staff to help digitize soil survey maps recompiled by the Natural Resources Conservation Service and bring them up to SSURGO (Soil Survey Geographic Data Base) national standards. In addition the NRC addressed and solved problems related to the year 2000 date change and agency computers. The date change has continued to cause considerable problems and expense to other agencies.

The Commission is currently using state of the art global positioning system (GPS) equipment to enhance the accuracy and efficiency of its survey work. However, most of that work is conducted primarily as part of the Commission's Operations Division and in secondary support of the planning process. A global positioning system is a satellite-based positioning system that provides horizontal and vertical location information as well as velocity and time information to GPS receivers. By knowing the exact

location of the satellites at a specific time and measuring the travel time of radio messages from the satellite to the GPS receiver on earth, it is possible to calculate the position of that GPS receiver very accurately. GPS surveys allow work to be completed in a fraction of the time with accuracies not achievable by traditional methods.

The Commission has six global positioning receivers. GPS technology is the foundation for the Commission's survey and photogrammetry operations. Additionally, it has been used to support Commission activities such as Digital Orthophoto Quadrangle (DOQ) production and the Southeast Nebraska Streambed Degradation study. NRC staff has also worked with staff from the Game and Parks Commission, the Department of Aeronautics, the Nebraska Department of Health and the Central Platte Natural Resources District on projects that have incorporated GPS.

The acquisition, processing and sharing of statewide databases has a multifold purpose. First, a multi-user database cuts costs by avoiding duplication and enhances coordination as the basic data set is the same for all uses. Secondly, a statewide database provides a consistent departure point for future enhancements. Satellite imagery, digitized aerial photography with rectification as well as actual ground surveying using global positioning technology can produce maps and map products with varying degrees of high resolution, accuracy and coverage. The NRC actively supports the development and use of statewide databases freely available for the use of a host of government agencies. To that end, the NRC has aggressively populated its world wide web server accessible through the Internet with easily available up-to-date information in both graphic and tabular forms. For those not having Internet connections a modem connection using SLIP/PPP technology can provide the same access to the information. The NRC's homepage address is <http://www.nrc.state.ne.us>.

### General Base Development

#### b) Work Completed and Planned

The NRC, under a workshare agreement with the U.S. Geological Survey is in the process of producing complete Digital Orthophoto Quadrangle (DOQ) and Digital Elevation Model (DEM) coverage for the state. This will be the largest single planning process work item in FY 99. The DOQs are being produced to support many of the Commission's and other Nebraska agencies applications including the development of statewide natural and cultural resources coverages. The Nebraska GIS Steering Committee has determined that statewide coverage of 5 layers consisting of DOQ, soils, transportation, hydrography, and land parcels, is essential for Nebraska. The DOQs are important as a base map and will support the development of the other 4 layers. This includes use as a base map to bring soil mapping up to SSURGO national standards.

The workshare agreement provides for development of the DOQs at a faster pace by utilizing the Commission's resources in partnership with USGS. By systematically producing the DOQs for the state, certain efficiencies can be realized in the collection of ground control, and the administration of the project. The workshare agreement was based on a successful pilot project during which NRC developed 25 DEMs and 64 DOQs for Lancaster County in Nebraska.

In FY 98, the NRC made substantial progress in its efforts to complete statewide coverage of DOQs and DEMs for Nebraska. By June 30, 1998 DOQs were completed for about 60% of the state and DEMs were completed for about 70% of the state. The DOQ/DEM project had a timeline of about 3 years and is scheduled for completion in FY 99.

The DEMs and DOQs being produced by the NRC are in turn being used in another Commission activity, the digitization of soil survey information. As the DOQs and DEMs are completed, Natural Resources Conservation Service staff is recompiling soil survey information on an orthophoto base map. The Natural Resources Commission staff then digitizes the information to national SSURGO standards which will allow electronic use. As of June 30, 1998 a total of 17 county soil surveys were in digital format and awaiting certification. In that regard, the NRC and the Natural Resources Conservation Service jointly fund a liaison position to assist in the work flow by and between the two agencies. In addition to assisting with recompilation of soil surveys, DEM-DOQ products are being used in other Commission activities such as the Lower Platte Feasibility Study. When the DEM/DOQ project is completed in 1999, some additional staff time may be utilized to modestly accelerate soil survey digitization.

Work on digitizing floodplain delineation maps continued in FY 97 and will be an agency priority in future fiscal years. That information can have a variety of applications, including use on individual disaster or flood event case studies. The NRC Planning Division has completed considerable work and cooperated closely with the Operations Division in this effort. Completion of DEMs/DOQs in FY 1997 may also free the staff time to modestly accelerate this effort.

Refinements to the hydrologic base will allow hydrologic data to be mapped and compared with the array of other data being gathered for GIS processing. The primary work and files for the hydrologic unit data base were completed in FY 93 and conversion of the information to a ARC/INFO based geographic information system was completed in FY 94. A draft report on the hydrologic unit data base was completed in late FY 95. In FY 96 that report was used to compile metadata which was placed on-line with the hydrologic information.

In FY 98, the Natural Resources Commission staff continued refinements to the NRC's world wide web homepage. This was a joint effort between the Comprehensive Planning Section and the Data Bank staff. The Commission redesigned the homepage to create user friendly access to the information and services it is providing to users. This includes graphic and tabular data as well as program information. This is an ongoing process that has seen recent improvements and additions to searchable databases and increasing availability of information on the programs and program funds administered by the Commission.

Commission staff are also continuing work on the long term development of a GIS based analytical modeling system to estimate water availability, evaluate the hydrologic impact of project and program proposals, and enhance traditional soil and water conservation, forestry and land use planning.

The Commission has also reached an agreement to make groundwater level data collected by a variety of agencies available on the world wide web. Commission staff will organize the digital outputs received from the USGS report on the Commission's home page. The cooperative effort with USGS is expected to occur annually – although efforts are also underway to integrate the University of Nebraska Conservation and Survey Division into the process.

A need currently exists for better and more consistent land use data. In that regard Landsat TM terrain corrected data for landuse/landcover was acquired from the EROS Data Center. The Commission has become an Affiliated User with the U.S. Geological Survey, EROS Data Center and now has complete statewide coverage that includes Landsat TM scenes from 1991-1993. The NRC has examples of this information on its world wide web homepage and has made this information available to other state and local agencies.

The Natural Resources Commission supports the DAS information technology and data sharing initiatives and has offered full service GIS connectivity. The DAS information technology questionnaire

completed by the Natural Resources Commission is a source of further information on Commission data base activities.

### Water Use Data Study

In 1992 the Commission entered into an agreement with the U.S. Geological Survey to cooperate in the USGS's nationwide program of data collection and estimation of water use. Data is gathered for every fifth year. Final revisions of the 1995 Water Use Report were completed in FY 98 and the volume was published and distributed in June 1998. It is also available on the Commission's web site. The report is over 64 pages long and contains data on the spectrum of water uses in the state, including public water supply and domestic, commerce, industrial, mining, irrigation, livestock and power generation water uses.

### Computer Operations/Support Staff

Commission Planning Division staff in conjunction with Data Bank staff also provided support to a number of other agencies. Although Data Bank staff also worked heavily on this activity, their work is not part of the statutory charge for this report and is not included in this report's budgetary material.

In FY 98 Commission planning staff members in coordination with Data Bank staff helped with computer related installations and technical support in a variety of state, local and federal agencies. As a result a variety of agencies, not all of them directly natural resources related, are in a better position to utilize data and products from the Commission's geographic information systems efforts. Services provided by the Commission included promotion, installation and maintenance of Internet access for other agencies. Work with natural resources districts has included installation of hardware and software to let the districts run the ARC-INFO software package on the Commission's GIS network from their locations. Agencies assisted in some manner by NRC staff in FY 98 included those on the following list. That assistance varied from cooperative work to minor trouble shooting or advice to major installation efforts.

- North Platte Natural Resources District
- Central Platte Natural Resources District
- Lower Platte North Natural Resources District
- Lower Platte South Natural Resources District
- Papio-Missouri River Natural Resources District
- Upper Republican Natural Resources District
- Nebraska Association of Resources Districts
- Nebraska Water Resources Association
- Nebraska Walnut Council
- Central Nebraska Public Power & Irrigation District
- Nebraska Game and Parks Commission
- Nebraska Environmental Trust
- Nebraska Forest Service
- Nebraska Department of Water Resources
- Nebraska Emergency Management Agency
- Nebraska Department of Economic Development
- Nebraska Department of Health
- Nebraska Department of Education
- Nebraska Crime Commission
- Nebraska Library Commission

- The Lied Center for the Performing Arts - UNL
- Nebraska Corn Board
- Nebraska Real Estate Appraiser Board
- Nebraska Grain Sorghum Board
- Nebraska Industrial Relations Commission
- Nebraska Ethanol Board
- Nebraska Department of Administrative Services  
(Division of Communications and Central Data Processing)
- Federal Emergency Management Agency
- Natural Resources Conservation Service, USDA
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of the Interior
- Nebraska Wheat Board
- National Management Association – State Government Chapter
- National Association of State Conservation Agencies
- Lancaster County Red Cross Chapter
- Pioneer Park Nature Center, Lincoln

## 2) Soil and Water Conservation Strategy

The Nebraska Soil and Water Conservation Strategy is a body of ideas, facts, agreements and recommendations for guiding the course of future conservation activities in the state. No work was completed on this activity in FY 98 and none is planned in the next two fiscal years.

## 3) Nebraska Wetlands Conservation Planning

The Nebraska Wetlands Conservation Planning effort was initiated to produce and implement a plan to conserve and enhance wetlands in Nebraska. It was led by the Nebraska Department of Environmental Quality. The Nebraska Game and Parks Commission and the Nebraska Natural Resources Commission were the other participating agencies. Early in FY 96, after considerable work on the plan by all three agencies, the Department of Environmental Quality suspended work on the effort. However, in the second half of FY 97 they reinitiated work and used products of all three agencies to compile a report entitled "Nebraska Wetland Resources, A Summary of the Issues Involving Conservation of Nebraska's Wetlands." The report was completed in FY 98 and concludes agency work on the project.

## E. STATE PROJECT PLANNING AND DESIGN

This activity was included in the process in order to allow for planning of water projects, including feasibility investigations and development of designs for construction. No work is planned for this activity.

## F. COORDINATION, ADMINISTRATION AND MANAGEMENT

Coordination, Administration and Management work is necessary for conduct of other activities of the State Water Planning and Review Process. Work in this category includes: compilation of this Annual Report and Plan of Work, routine planning staff administrative time, and printing and mailing requests. In addition staff involvement in environmental education activities has been included as a part of this activity.

Staff environmental education activities in FY 98 included continued distribution of "Stop, Look and Learn About Our Natural World, A Nebraska Natural Resources Elementary Education Guide". The volumes were first printed in 1988 and nearly 4000 three volume sets have now been distributed. No reprintings are planned and the supply is very nearly depleted. Other FY 97 NRC environmental education activities included work on the Children's Groundwater Festival in Grand Island, and work on the fall symposium of the Groundwater Foundation. Continued staff involvement in environmental education activities at a similar level is expected in future fiscal years.

Printing and mailing expenses were minimal in FY 98, although they did include printing and mailing of a report on estimated Nebraska water use. In FY 98 there will continue to be some administrative expense for mailing copies of "Stop, Look and Learn About Our Natural World". Coordination, Administration and Management expenses are expected to account for a declining portion of Commission expenses in future fiscal years.

A final management activity expected in FY 99 is formal staff discussion on planning process direction. That planned activity is discussed in this report's introduction.

#### IV. BUDGETARY TABLES

Table 1  
**PLANNING AND REVIEW PROCESS EXPENDITURES - FY 98**

	310	334	Total
Problem Analysis and Area Planning - 23 County Streambank Erosion and Streambed Degradation Study	\$25,000	----	\$25,000
Problem Analysis and Area Planning – Lower Platte Feasibility Study and Related Section 503 Studies	----	125,000	125,000
Problem Analysis and Area Planning - Platte River Alliance	3,125	----	3,125
Basic Planning Activity - Computer Hardware	26,996	1,066	28,062
Basic Planning Activity - Computer Software	10,035	1,075	11,110
Basic Planning Activity – Computer Licensing, Access Fees, Maintenance Contracts and Data Processing	9,668	----	9,668
Coordination, Administration & Management - Printing and Mailing	3,521	1,954	5,475
Basic Planning Activity - Intergovernmental Contract with NRCS	7,447	----	7,447
Staff and Other Support Including Travel	87,490	542,917	630,407
<b>TOTAL</b>	<b>\$173,282</b>	<b>\$672,012</b>	<b>\$845,294</b>

Table 2  
**PLANNING AND REVIEW PROCESS BUDGET - FY 99**

	310	334	Total
Problem Analysis and Area Planning - 23 County Streambank Erosion and Streambed Degradation Study	\$25,000	----	\$25,000
Problem Analysis and Area Planning - Lower Platte Feasibility Study and Related Section 503 Studies	----	125,000	125,000
Problem Analysis and Area Planning - Platte River Alliance	3,571	----	3,571
Basic Planning Activity - Computer Hardware	66,642	----	66,642
Basic Planning Activity - Computer Software	10,000	----	10,000
Basic Planning Activity – Computer Licensing, Access Fees, Maintenance Contracts and Data Processing	9,400	----	9,400
Coordination, Administration & Management - Printing and Mailing	8,000	2,200	10,200
USGS Groundwater Levels	5,800	----	5,800
Basic Planning Activity - Intergovernmental Contract with NRCS	56,000	----	56,000
Staff and Other Support Including Travel	100,300	619,300	719,600
Platte River Cooperative Agreement	----	450,000	450,000
<b>TOTAL</b>	<b>\$284,713</b>	<b>\$1,196,500</b>	<b>\$1,481,213</b>

Table 3  
 PLANNING AND REVIEW PROCESS BUDGET - FY 2000

	310	334	Total
Problem Analysis and Area Planning - 23 County Streambank Erosion and Streambed Degradation Study	\$25,000	----	\$25,000
Problem Analysis and Area Planning - Lower Platte Feasibility Study and Related Section 503 Studies	----	125,000	125,000
Problem Analysis and Area Planning - Platte River Alliance	3,615	----	3,615
Basic Planning Activity - Computer Hardware	38,397	----	38,397
Basic Planning Activity - Computer Software	11,000	----	11,000
Basic Planning Activity - Computer Licensing, Access Fees, Maintenance Contracts and Data Processing	11,000	----	11,000
Coordination, Administration & Management - Printing and Mailing	4,000	2,200	6,200
Basic Planning Activity - Intergovernmental Contract with NRCS	35,000	----	35,000
USGS Groundwater Levels	5,800	----	5,800
Staff and Other Support Including Travel	103,330	637,879	741,209
Platte River Cooperative Agreement	----	250,000	250,000
<b>TOTAL</b>	<b>\$237,142</b>	<b>\$1,015,079</b>	<b>\$1,252,221</b>

Table 4  
 PLANNING AND REVIEW PROCESS BUDGET - FY 2001

	310	334	Total
Problem Analysis and Area Planning - Platte River Alliance	3,700	----	3,700
Problem Analysis and Area Planning - Lower Platte Feasibility Study and Related Section 503 Studies	----	125,000	125,000
Basic Planning Activity - Computer Hardware	60,576	----	60,576
Basic Planning Activity - Computer Software	13,000	----	13,000
Basic Planning Activity - Computer Licensing, Access Fees, Maintenance Contracts, and Data Processing	13,000	----	13,000
Coordination, Administration & Management - Printing and Mailing	5,000	2,200	7,200
Basic Planning Activity - Intergovernmental Contract with NRCS	36,750	----	36,750
USGS Groundwater Levels	5,800	----	5,800
Staff and Other Support Including Travel	106,430	657,015	763,445
<b>TOTAL</b>	<b>\$244,256</b>	<b>\$784,215</b>	<b>\$1,028,471</b>

Table 5  
 PLANNING AND REVIEW PROCESS BUDGET - FY 2002

	310	334	Total
Problem Analysis and Area Planning - Platte River Alliance	4,000	----	4,000
Basic Planning Activity - Computer Hardware	60,573	----	60,573
Basic Planning Activity - Computer Software	14,000	----	14,000
Basic Planning Activity – Computer Licensing, Access Fees, Maintenance Contracts and Data Processing	13,000	----	13,000
Coordination, Administration & Management - Printing and Mailing	6,000	2,200	8,200
Basic Planning Activity - Intergovernmental Contract with NRCS	38,588	----	38,588
USGS Groundwater Levels	5,800	----	5,800
Staff and Other Support Including Travel	109,623	676,725	786,348
<b>TOTAL</b>	<b>\$251,584</b>	<b>\$678,925</b>	<b>\$930,509</b>

Table 6  
 PLANNING AND REVIEW PROCESS BUDGET - FY 2003

	310	334	Total
Problem Analysis and Area Planning - Platte River Alliance	4,120	----	4,120
Basic Planning Activity - Computer Hardware	62,779	----	62,779
Basic Planning Activity - Computer Software	14,000	----	14,000
Basic Planning Activity – Computer Licensing, Access Fees, Maintenance Contracts, and Data Processing	13,000	----	13,000
Coordination, Administration & Management - Printing and Mailing	6,000	2,200	8,200
Basic Planning Activity - Intergovernmental Contract with NRCS	40,520	----	40,520
USGS Groundwater Levels	5,800	----	5,800
Staff and Other Support Including Travel	112,912	697,027	809,939
<b>TOTAL</b>	<b>\$259,131</b>	<b>\$699,227</b>	<b>\$958,358</b>

Table 7

PLANNING & REVIEW PROCESS EXPENDITURES FY 97 AND BUDGET FYs 1999-2003

	FY 98 Expenditures			FY 99 Budget			FY 00 Budget			FY 2001 Budget			FY 2002 Budget			FY 2003 Budget		
	Staff & Support	Contracts & Computer	Total	Staff & Support	Contracts & Computer	Total	Staff & Support	Contracts & Computer	Total	Staff & Support	Contracts & Computer	Total	Staff & Support	Contracts & Computer	Total	Staff & Support	Contracts & Computer	Total
Program 310	91,011	82,272	173,282	108,300	176,413	284,713	103,330	133,812	237,142	106,430	137,826	244,256	109,623	141,961	251,584	112,912	146,219	259,131
Program 334	544,871	127,141	672,012	619,700	576,800	1,196,500	637,879	377,200	1,015,079	657,015	127,200	784,215	676,725	2,200	678,925	697,027	2,200	699,227
TOTAL	635,882	209,413	845,294	728,000	753,213	1,481,213	741,209	511,012	1,252,221	763,445	265,026	1,028,471	786,348	144,161	930,509	809,939	148,419	958,358