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134

SUMMARY  
 OF  
 OUTLINES AND TIME SCHEDULES  
 FOR  
 NEBRASKA'S  
 STATE WATER PLAN  
 AS OF  
 JULY 1, 1968

NEBRASKA NATURAL RESOURCES COMMISSION  
 301 Centennial Mall South  
 P.O. Box 94876  
 Lincoln, Nebraska 68509

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STATE SOIL AND WATER  
 CONSERVATION COMMISSION  
 Box 94725, State House Sta.  
 Lincoln, Nebraska 68509

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 Natural Resources Commission

*PREPARED  
 BY THE  
 PLANNING DIVISION  
 OF THE  
 NEBRASKA  
 SOIL AND WATER  
 CONSERVATION COMMISSION*

TABLE OF CONTENTS

ORGANIZATION CHART

FLOW DIAGRAM FOR INFORMATION

THE FRAMEWORK STUDY

TIME SCHEDULE

OUTLINE, VOLUME 1, INVENTORY OF LAND RESOURCES

OUTLINE, VOLUME 2, INVENTORY OF WATER RESOURCES

OUTLINE, VOLUME 3, WATER AND LAND RESOURCES, PROBLEMS AND NEEDS

OUTLINE, VOLUME 4, ECONOMIC BASE STUDY FOR WATER RESOURCES DEVELOPMENT

OUTLINE, VOLUME 5, PLAN OF DEVELOPMENT

THE BASIN PLANNING REPORTS

TIME SCHEDULE

COOPERATIVE PROGRAM FOR COMPREHENSIVE BASIN PLANNING REPORTS

THE STATUS SUMMARY

TIME SCHEDULE

OUTLINE, VOLUME 1, PROPOSED WATER REOSURCES DEVELOPMENT IN NEBRASKA

OUTLINE, VOLUME 2, EXISTING WATER RESOURCES DEVELOPMENT IN NEBRASKA

OUTLINE, VOLUME 3, SUMMARY OF WATER RESOURCES DEVELOPMENT IN NEBRASKA

THE SPECIAL RECOMMENDATIONS

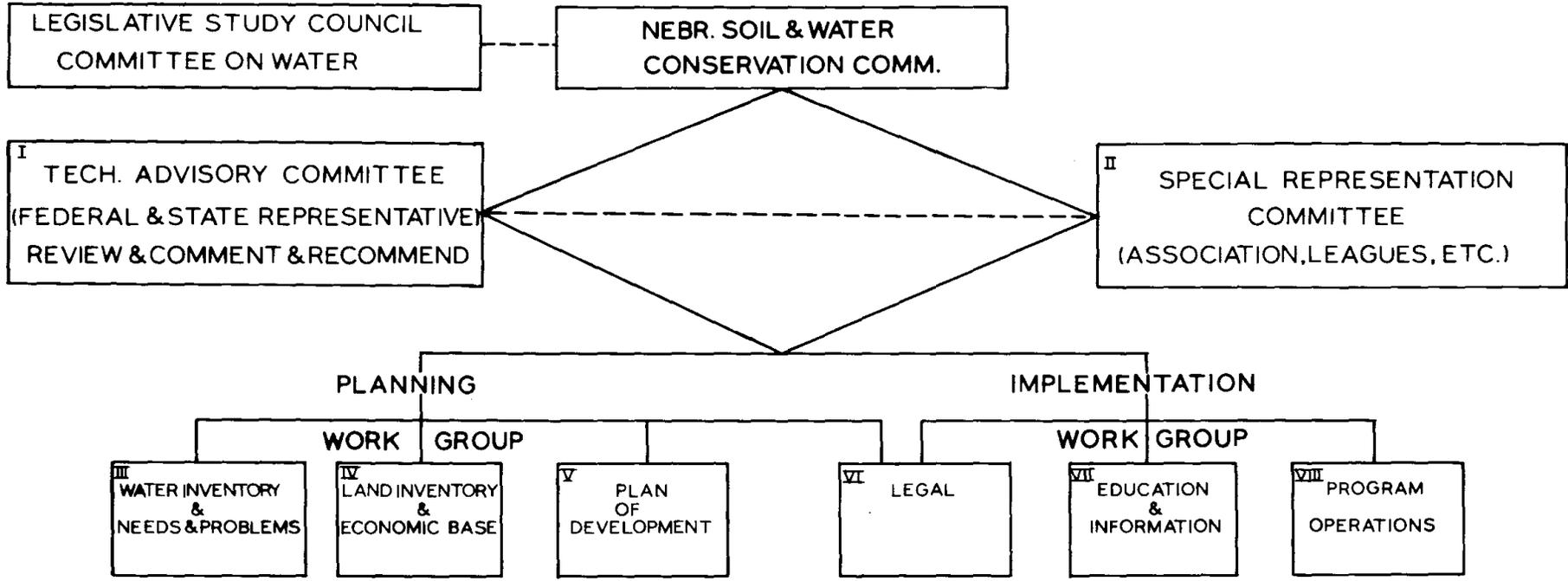
TIME SCHEDULE

GENERAL DESCRIPTION

EDUCATION WORK GROUP STATEMENT

PROGRAM OPERATIONS WORK GROUP STATEMENT

# STATE WATER PLAN



**I**  
N.S.W.C.C.  
U.S. DEPT. OF AGRICULTURE  
U.S. DEPT. OF DEFENSE  
U.S. DEPT. OF INTERIOR  
NEBR. DEPT. OF ECONOMIC DEVELOPMENT  
NEBR. DEPT. OF HEALTH  
NEBR. DEPT. OF ROADS  
NEBR. DEPT. OF WATER RESOURCES  
NEBR. GAME & PARKS COMM.  
U.OF N. BUREAU OF BUSINESS RESEARCH  
U.OF N. AG. EXPERIMENT STATION  
U.OF N. CONS. SURVEY DIV.  
NEBR. IRRIGATION ASSN.  
NEBR. RECLAMATION ASSN.  
U.OF N. AG. EXTENSION SERV.  
U.OF N. COLLEGE OF AGRICULTURE

**II**  
N.S.W.C.C.  
NEBR. LEAGUE OF MUNICIPALITIES  
NEBR. LEAGUE OF WOMEN VOTERS  
NEBR. RECLAMATION ASSN.  
NEBR. IRRIGATION ASSN.  
NEBR. ASSN. OF COMMERCE & INDUSTRY  
NEBR. ASSN. OF S.W.C.D.'S  
NEBR. FARM BUREAU FEDERATION  
FARMERS UNION OF NEBR.  
STATE GRANGE  
NEBR. PETROLEUM COUNCIL  
NEBR. PRESS ASSN.  
NEBR. RURAL ELEC. ASSN.

**III**  
N.S.W.C.C.  
U.S. DEPT. OF AGRICULTURE  
U.S. DEPT. OF DEFENSE  
U.S. DEPT. OF INTERIOR  
NEBR. GAME & PARKS COMM.  
NEBR. DEPT. OF HEALTH  
NEBR. DEPT. OF WATER RESOURCES  
U.OF N. COLLEGE OF AGRICULTURE  
U.OF N. CONS. & SURVEY DIV.

**IV**  
N.S.W.C.C.  
U.S. DEPT. OF AGRICULTURE  
U.S. DEPT. OF DEFENSE  
U.S. DEPT. OF INTERIOR  
NEBR. GAME & PARKS COMM.  
NEBR. DEPT. OF HEALTH  
NEBR. DEPT. OF ROADS  
NEBR. DEPT. OF WATER RESOURCES  
U.OF N. COLLEGE OF AGRICULTURE  
U.OF N. CONS. SURVEY DIV.  
U.OF N. BUREAU OF BUSINESS RESEARCH  
NEBR. DEPT. OF ECONOMIC DEVELOPMENT  
NEBR. DEPT. OF EDUCATION

**V**  
N.S.W.C.C.  
U.S. DEPT. OF AGRICULTURE  
U.S. DEPT. OF DEFENSE  
U.S. DEPT. OF INTERIOR  
NEBR. GAME & PARKS COMM.  
NEBR. DEPT. OF HEALTH  
NEBR. DEPT. OF ROADS  
NEBR. DEPT. OF WATER RESOURCES  
U.OF N. COLLEGE OF AGRICULTURE  
U.OF N. CONS. SURVEY DIV.  
U.OF N. COLLEGE OF ENGINEERING



SECTION I  
OF  
THE STATE WATER PLAN

THE FRAMEWORK STUDY

STATE WATER PLAN

Section I -- Framework Study

		TENTATIVE PUBLICATION DATE
Volume 1	Inventory of Land Resources	February 15, 1969
Volume 2	Inventory of Water Resources	March 15, 1969
Volume 3	Water and Land Resources Problems and Needs	April 15, 1969
Volume 4	Economic Base Study For Water Resources Development	May 15 1969
Volume 5	A Proposed Plan of Water and Land Resources Development	April 1, 1971

STATE WATER PLAN

Framework Study

Volume I - INVENTORY OF LAND RESOURCES

- I. Land Areas by Major Use (state matrix of major and auxiliary uses) NSWCC  
(SCS)  
(ERS)  
(C of E)
  - A. Agriculture
    1. Cropland
      - a. irrigated
      - b. non-irrigated
    2. Pasture
    3. Range
    4. Forests
    5. Woodlands
    6. Other
  - B. Urban, Transportation and Built-up Areas
  - C. Recreation and Fish and Wildlife Areas
  - D. Mineral Industry Areas
  - E. Military Areas
  - F. Water Areas
- II. Agricultural Land Capabilities NSWCC (ERS)
  - A. Soils Capability (including inventory of acreages of soils by capabilities) (SCS)
    1. Soil Resource Groups by Subbasins
    2. Soil Resource Groups by Land Resource Areas
  - B. Physical Irrigation Capabilities (by subbasin) (Bureau of Reclamation)
    1. Arable Land (Ag. College)
      - a. irrigable land (Cons. & Survey)
        - (1) irrigated land
        - (2) potentially irrigable land Class A
        - (3) potentially irrigable land Class B
        - (4) potentially irrigable land Class C
      - b. non-irrigable land
    2. Non-arable Land



# STATE WATER PLAN

## Framework Study

### Volume 2 - INVENTORY OF WATER RESOURCES

#### I. Surface Water

- A. Streamflow Records Water Resources (USGS)
  - 1. Monthly and Annual Volumes for Selected Stations in Each Subbasin
  - 2. Flow Duration Curves for Above Stations
  - 3. Low Flow Probability Curves for Above Stations (7 day - 10 year)
  - 4. Flood Peak Probability Curves for Above Stations
  - 5. Effects of Development
  - 6. Location Map
  
- B. Quality of Surface Water Health (USGS)
  - 1. Bacterial
    - a. BOD, DO
  - 2. Chemical (USBR)
    - a. pH, SAR
  - 3. Physical
    - a. Temperature (G & P)
    - b. Sediment
      - (1) suspended
      - (2) bed
      - (3) total
  
- C. Utilization Water Resources
  - 1. Irrigation (USBR)
    - a. Diversions by Subbasin
    - b. Return Flows
    - c. Net Depletion
  - 2. Municipal (FWPCA, SWCC)
    - a. Total by Subbasin
    - b. Net Depletion
  - 3. Industrial (FWPCA, BOM, SWCC)
    - a. Total by Subbasin
    - b. Net Depletion
  - 4. Power (FPC, SWCC)
    - a. Total for Hydropower by Subbasin
    - b. Total for Steam Cooling by Subbasin
    - c. Net Depletion
  - 5. Recreation & Fish and Wildlife (G & P)
  - 6. Navigation (USCE)
  - 7. Rural Domestic and Livestock (USDA)
    - a. Total by Subbasin
    - b. Net Depletion
  
- D. Major Storage Lakes and Reservoirs Water Resources (SWCC)
  - 1. Total Surface Area and Volume by Subbasin
  - 2. Uses of Above Lakes and Reservoirs
  - 3. Quality of Water in Above Reservoirs
  - 4. Location Map

## II. Ground Water

- A. Occurrence and Availability by Subbasin                      Conservation & Survey
  - 1. Aquifer Characteristics
  - 2. Water Table Trend
  - 3. Location Map
  
- B. Quality of Ground Water                      Conservation & Survey (Health)
  - 1. Physical
  - 2. Chemical
  - 3. Bacterial
  
- C. Utilization                      Conservation & Survey
  - 1. Irrigation                      (USBR, SCS, WR)
    - a. Total Pumped by Subbasin
    - b. Net Depletion
    - c. Degree of Development of Aquifer
  - 2. Municipal (Health, FWPCA, SWCC)
    - a. Total by Subbasin
    - b. Per Capita Use Rates
    - c. Net Depletion
  - 3. Industrial (Health, FWPCA, SWCC)
    - a. Total by Subbasin
    - b. Net Depletion
  - 4. Power
    - a. Total Steam Plant Use
    - b. Net Depletion
  - 5. Rural Domestic & Livestock                      (USDA)
    - a. Total by Subbasin
    - b. Net Depletion

## III. Climate

- A. Precipitation Records      Soil and Water Conservation Commission
  - 1. Monthly and Annual Totals for Selected Stations in Each Subbasin
  - 2. Monthly and Annual Extremes For Above Stations
  - 3. Snowfall and Hail
  
- B. Temperature Records      Soil and Water Conservation Commission
  - 1. Monthly and Annual Extremes for Selected Stations
  - 2. Evaporation Rates
  - 3. Length of Growing Season
  
- C. Weather Modification      Soil and Water Conservation Commission (USBR)

STATE WATER PLAN

Framework Study

Volume 3 - WATER AND LAND RESOURCES PROBLEMS AND NEEDS

- I. Municipal Water Supply                      Health
  - A. Use Rates by Subbasin                      (SWCC, FWPCA)
  - B. Total State Usage                      (SWCC)
    1. Surface Water
    2. Ground Water
    3. Net Depletion
    4. Shortage Areas (present and future)
  - C. Water Quality Problems                      (FWPCA)
    1. Existing
    2. Future (1980, 2000, 2020)
  
- II. Industrial Water Supply                      Health
  - A. Use Rates by Subbasin                      (BOM, FPC, FWPCA)
  - B. Total State Usage                      (FWPCA, SWCC)
    1. Surface Water
    2. Ground Water
    3. Net Depletion
    4. Shortage Areas (present and future)
  - C. Water Quality Problems                      (FWPCA)
    1. Existing
    2. Future (1980, 2000, 2020)
  
- III. Rural Domestic and Livestock                      U.S. Department of Agriculture
  - A. Use Rates by Subbasin
  - B. Total State Usage
    1. Surface Water
    2. Ground Water
    3. Net Depletion
    4. Shortage Areas (present and future)
  - C. Water Quality Problems
    1. Existing
    2. Future (1980, 2000, 2020)



VIII. Navigation U.S. Corps of Engineers

- A. Existing Needs and/or Problems
- B. Potential

IX. Electric Power Soil & Water Cons. Comm. (FPC, FWPCA)  
(Local Dist.)

- A. Energy Requirements
  - 1. Peak - KW
  - 2. Total Energy - KWH
- B. Water Requirements
  - 1. Hydro
  - 2. Steam Cooling

X. Fish and Wildlife Game & Parks Commission

- A. Total Water Habitat
  - 1. Streams
  - 2. Lakes
- B. Water Quality
- C. Future Needs
  - 1. Recreation
  - 2. Commercial
  - 3. Location Map

XI. Recreation Game & Parks Commission

- A. Present Use
  - 1. Streams
  - 2. Lakes
- B. Water Quality
- C. Future Needs
  - 1. Surface Area
  - 2. Stream Miles
  - 3. Location Map

# STATE WATER PLAN

## Framework Study

### Volume 4 - ECONOMIC BASE STUDY PERTAINING TO WATER RESOURCES DEVELOPMENT

- I. Socio-Economic U of N Bureau of Business Research (ERS  
(NSWCC))
  - A. History of Settlement
  - B. Development and Organization of the Economy
    1. Relation to the National and Regional Economy
    2. Historic Employment and Productivity Trends
    3. Factors Influencing the Organization of the Present Economy
  - C. Distribution of Present Population, Including Recent Changes and Trends
    1. Standard Metropolitan Statistical Areas
    2. Other Urban
    3. Rural
      - a. farm
      - b. non-farm
  - D. Projections of Population, Income, and Employment
    1. State, Regional and National Relationships
    2. Population, Income, and Employment Projections by Areas
    3. Projection Methodology
      - a. disaggregation of MBIAC projections
      - b. reappraisal of projections on state basis
  
- II. Agricultural Economy ERS (U OF N Dept. of Ag. Economics  
(NSWCC))
  - A. Farm Characteristics
    1. Number of Farms
    2. Farm Size (average size by groups)
    3. Farms by Economic Class
    4. Type of Farm
    5. Value of Products Sold
    6. Farm Expenditures
    7. Agricultural Employment
    8. Farm Income
    9. Off-farm Income
  - B. Agricultural Production
    1. Crops (yields - recent, current normal and trends)
    2. Livestock (type and methods of production)
    3. Forestry (type and value)
  - C. Markets

- D. Future Agricultural Production
    - 1. Production to Maintain Nebraska's Share of National Production Requirements
    - 2. State's Maximum Production Capabilities
    - 3. State's Level of Production Consistent With MRB Production
  - E. Analysis of Future Agricultural Situation
    - 1. Farm Size
    - 2. Farm Numbers
    - 3. Farm Income
    - 4. Agricultural Employment
- III. Manufacturing      U of N Bureau of Business Research      (NSWCC)
- A. Past and Present (including regional and national relationships)
    - 1. Employment (including recent changes and locational factors)
    - 2. Productivity
    - 3. Markets
    - 4. Raw Materials (sources and locational aspects)
    - 5. Heavy Water-Using Industries
      - a. food and kindred products
      - b. petroleum refining
      - c. chemical products
      - d. primary metals
      - e. paper and allied products
      - f. textile mill products
  - B. Projections of the Manufacturing Industry
    - 1. Employment
    - 2. Productivity
    - 3. Heavy Water-Using Industries (location in relation to pollution problems)
- IV. Other Commodity Producing Industries      NSWCC      (Bureau of Mines)
- A. Mineral Resources
    - 1. Past and Present (production and employment)
    - 2. Projected Production
- V. Noncommodity Producing Industries
- A. Recreation and Tourism      Game & Parks Commission
    - 1. Availability
    - 2. Use - Including Impact on Economy
  - B. Retail and Wholesale Trade, Finance, Real Estate      U of N
  - C. Professional Services and Personal Services      Bureau of
  - D. Education, Government, Armed Forces      Research
  - E. Contract Construction      (NSWCC)

VI. Social and Economic Impact of Water Resources Development

PROPOSED REPORT OUTLINE

FRAMEWORK STUDY

VOLUME 5

PLAN OF DEVELOPMENT

This outline is awaiting review and approval by the Nebraska Soil and Water Conservation Commission. Substitute pages will be furnished in the event a revision of the proposed outline is approved.

PROPOSED REPORT OUTLINE

Volume 5 - PLAN OF DEVELOPMENT

- I. Introduction
  - A. Purpose and Scope of
  - B. Organization and Procedures
  - C. Acknowledgements
  
- II. Physical Characteristics of State
  - A. Location and Size
  - B. Climate
    1. Precipitation
    2. Temperature
    3. Evaporation
  - C. Land (Inventory)
    1. Geology, Soil and Topography
    2. Land Use and Land Resource Areas
    3. Cover Conditions
  - D. Water (Inventory)
    1. Surface
    2. Ground
  
- III. Economic Characteristics
  - A. History
  - B. Present Economy
    1. Population and Employment
    2. Agricultural
    3. Mineral
    4. Manufacturing
    5. Non-commodity Producing Industries
  - C. Projection of Future Economic Activity

IV. Present Water Situation

- A. Existing Water Resource Developments by Functions
- B. Investigations and Planning Underway
- C. Present Activities of Water Resource Planning & Construction Agencies (Federal, State and Local)

V. Analysis of Water Resource Problems and Needs

- A. Climatic Variability
- B. Floodwater and Sediment Damage
- C. Streambank and Erosion Damage
- D. Agricultural Water Management
  - 1. Drainage
  - 2. Irrigation
  - 3. Watershed Protection
- E. Water Quality Control
  - 1. Surface Waters
  - 2. Ground Waters
- F. Water Supply Requirements
  - 1. Municipal and Industrial
  - 2. Rural Domestic and Livestock
  - 3. Pollution Abatement
  - 4. Irrigation
  - 5. Navigation
  - 6. Electric Power
  - 7. Fish and Wildlife
  - 8. Recreation

VI. Water Resource Development Potentials

- A. Municipal and Industrial Water
- B. Rural Domestic and Livestock
- C. Water Quality Control and Pollution Abatement
- D. Drainage
- E. Irrigation
- F. Flood Control and Prevention
- G. Land Stabilization
- H. Navigation

- I. Electric Power
- J. Fish and Wildlife, and Recreation
- K. Watershed Protection

VII. The Recommended Plan by Nebraska Basins

- A. Modification of Existing Developments
- B. Installation of New Developments
  - 1. Suggest Priority of Installation
  - 2. Describe Alternate Potentials

VIII. Analysis of Effect of Recommended Plan

- A. On Water Resources
- B. On State Economy

IX. Recommendations of Action Required to Reach State's Water Resource Development Potential

SECTION 2  
OF  
THE STATE WATER PLAN

THE BASIN PLANNING REPORTS

S T A T E   W A T E R   P L A N

SECTION 2 -- BASIN PLANS

		TENTATIVE PUBLICATION DATE
Volume 1	Big Blue	September, 1968
Volume 2	Elkhorn	September, 1969
Volume 3	Little Blue	September, 1970
Volume 4	Niobrara	February, 1971
Volume 5	Nemaha	July, 1971
Volume 6	White	1972
Volume 7	Loup	1972
Volume 8	Middle Platte	1973
Volume 9	Republican	1974
Volume 10	Lower Platte	1975
Volume 11	Upper Platte	1975

COOPERATIVE PROGRAM  
FOR  
COMPREHENSIVE BASIN PLANNING REPORTS

June 1968

COOPERATIVE PROGRAM FOR  
COMPREHENSIVE BASIN PLANNING REPORTS

Introduction

The 1967 Legislature directed the preparation of a comprehensive State Water Plan by the Nebraska Soil and Water Conservation Commission. As one section of this statewide plan, a Basin Planning Report will be prepared for each of the eleven major river basins in Nebraska. These reports are in general only a continuation of the past basin planning efforts undertaken in response to requests from basin-wide Water Resources Associations, Planning Boards and specific requests from the Legislature.

The Commission Role

The Commission will coordinate the study activities of the various state and federal agencies and integrate individual agency findings into an overall basin plan. Contact will be maintained by the Commission with local groups during the planning program and upon completion the Commission will assist as requested in the objective consideration of the plan by basin groups and individuals.

Description of Report

The Planning Report will utilize the information available from state and federal agencies to present a summary of the basin resources. This summary will consider present land and water resources, population, industry, agriculture, and wildlife. Projections, where available, will be used to determine future needs of the basin.

From the potential projects developed by the various participating agencies, a general plan of basin development will be proposed along with a time schedule for completion.

The Planning Report will also include recommendations for action by local entities and state and federal agencies which would enhance the water and land resource development of the basin.

Assistance Requested

The target dates for completion of these reports are as shown below in the right hand column. In order to allow sufficient time for analysis, those contributing reports concerning the various river basins are requested to make them available by the dates shown in the left hand column. The agencies from whom help is anticipated, and the specific items of assistance requested of them are listed on the following pages. The Commission recognizes the need and desirability of complete individual agency reports and does not intend that reports be limited to the specific information requested in this outline.

<u>Basin</u>	<u>Date of Submission</u>	<u>Date of Completion</u>
Big Blue Basin		September, 1968
Elkhorn Basin	September, 1968	September, 1969
Little Blue Basin	September, 1969	September, 1970
Niobrara	February, 1970	February, 1971
Nemaha	July, 1970	July, 1971

Extension Division and Agricultural Extension Service

1. Development of a program of education and information to explain the proposed basin plan to basin residents, basin organizations and officials.
2. Determination of local interest in proposed water resources development through questionnaires, local meetings and investigation by local staff members.
3. Development of a program of education and information for County Extension Agents to prepare them to disseminate the proposed plan and interpret the facts to basin residents.
4. Analyze irrigation water management in the basin and suggest methods for improvement.
5. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Game and Parks Commission

1. Summary of available recreational areas in basin including relation of current use to carry capacity.
2. Summary of fish and wildlife areas in basin including relation of current use to carry capacity.
3. Discussion of future recreational demands including preference of types of activity and location of demand.
4. Land and water needs to meet future demands in recreation and fish and wildlife.
5. Effect of presently proposed projects on present and future demands.
6. Discussion of relation between pollution abatement and increased recreational use of streams including economic considerations.
7. Discussion of historical recreation use and development within the basin.
8. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Department of Water Resources

1. Physical description of the basin drainage system including parameters such as stream length, slope, and valley shape.
2. Summary of water sources for basin streamflow (precipitation, groundwater, pumping waste).
3. Description of records available including location of gages of various types.
4. Summary of streamflow data available including period of record, annual runoff at selected locations (max, min, mean), instantaneous flow maximums.
5. Summary of power rights existing in the basin including date of priority, location and extent of right, current use and conclusion of right.
6. Summary of rights assigned to divert and use streamflows including date of right, extent of right, location of right, acres irrigated, total acres so irrigated in basin, current use of rights.
7. Summary of rights to store water in the basin including condition of storage reservoir.
8. Summaries of seven day, ten year low flows at all stations in the basin where sufficient records exist for reasonably reliable analysis.
9. Make appropriate recommendations concerning the network of hydrologic data gathering stations, and the effect on streamflow of the currently proposed projects.
10. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Conservation and Survey Division

1. In general terms describe the topography of the basin.
2. In general terms describe the soils of the basin including general types.
3. Discuss the relation of ground and surface water in the basin.
4. Discuss the occurrence of groundwater including:
  - (a) general subsurface geologic description.
  - (b) location and description of commonly used aquifers.
  - (c) depth to water table.
  - (d) aquifer characteristics such as porosity, transmissibility, permeability and thickness.
  - (e) quality of groundwater including, total dissolved solids, salinity, potassium, calcium, magnesium, sulfur, boron, nitrates, etc.
5. Discuss the use of groundwater including:
  - (a) the importance of groundwater to the basin economy.
  - (b) irrigation well concentration.
  - (c) water table fluctuations.
  - (d) water in storage available for withdrawal.
  - (e) economics of present and future withdrawal.
6. Discuss recharge including:
  - (a) natural recharge rates and areas.
  - (b) potential artificial recharge means and rates.
  - (c) sites suitable for artificial recharge.
7. Make recommendations as appropriate concerning investigation and use of the groundwater resource.
8. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Health Department

1. Discuss surface water chemical quality including pH, dissolved oxygen, alkalinity, hardness, phosphates, nitrates, carbonates, syndets, chlorides, iron, manganese, copper, fluoride, chromium, sodium, potassium and boron. The relationship between chemical quality and the Water Quality Standards should be discussed.
2. Discuss the surface water bacteriological quality including BOD, coliform and other appropriate indicators. The relation between bacteriological quality and the Water Quality Standards should be discussed.
3. Discuss the surface water physical quality with emphasis on the Water Quality Standards.
4. Discuss municipal and industrial use of water distinguishing between them as possible. Discussion should include:
  - (a) present sources.
  - (b) present treatment and adequacy of treatment facilities.
  - (c) present quality of treated water.
  - (d) future needs.
5. Discuss municipal sewage systems including:
  - (a) location.
  - (b) adequacy of treatment facilities.
  - (c) adequacy of treatment (BOD reduction)
  - (d) future needs.
6. Discuss stream pollution
  - (a) summary of sources of pollution loads:
    - (1) fertilizers.
    - (2) pesticides.
    - (3) other agricultural operations.

Nebraska Health Department (con't)

- (4) industrial pollution.
  - (5) municipal pollution.
  - (b) water requirements necessary to provide streamflows to meet Water Quality Standards.
7. Discuss solid waste disposal:
    - (a) current urban problems.
    - (b) future urban problems.
    - (c) rural solid waste disposal problems.
  8. Make recommendations as appropriate.
  9. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Nebraska Department of Economic Development

1. Discuss basin population including:
  - (a) historical distribution of population by sex, age, location type of residence.
  - (b) rural, urban shifts.
  - (c) population density.
  - (d) comparison of growth rates to state, region and nation.
  - (e) analysis of trends.
  - (f) employment and income.
2. Discuss manufacturing as an industry including:
  - (a) historical development of manufacturing in the basin.
  - (b) present situation of manufacturing regarding labor, location markets, etc.
  - (c) potential for expansion of industrial activity in basin.
3. Discuss economic importance of mineral resources.
4. Describe specific problems including those of short duration which may be foreseen as a result of resource development.
5. General discussion of economic impact of various types of development in the basin such as flood control, drainage, irrigation, pollution abatement, recreation, and water supply.

U. S. Department of Agriculture - Soil Conservation Service

1. In general terms describe the vegetation of the basin including type and distribution.
2. Describe the land resource of the basin including:
  - (a) area and location of basin.
  - (b) current land use.
  - (c) location and description of major land resource areas.
  - (d) comparison of productivity of differing land resource areas.
  - (e) anticipated future land use.
3. Locate and describe in general terms the need for land and water management in the basin including:
  - (a) relation between soil types and needed treatment.
  - (b) need for and value of irrigation water runoff management.
  - (c) irrigation techniques currently used.
  - (d) additional water that could be made available through good management.
4. Delineate project sized watersheds.
5. Estimate the reasonably attainable farm irrigation efficiency at the present and in the future.
6. Summarize the historical floodwater damage as an average annual loss for the basin with the information by reach for rural areas along the main stem and tributaries for drainage areas under 250,000 acres and for all communities of less than 2,500 population. Estimate the potential reduction of flood damages with projects.
7. Delineate erosion problems on the main stem and tributaries having a drainage area under 250,000 acres. Agency authorities applicable to correction of the situation should be described.

U. S. Department of Agriculture (con't)

8. Inspect all levees, rip rap or other works of improvement along main stem and tributaries having a drainage of less than 250,000 acres including identification of trouble areas and agency authorities applicable to correction of the situation.
9. Describe potential reservoir sites located to date in the basin.
10. Locate and describe upstream eroding areas including those that are considered to require project-type action and describe the type of project required.
11. Identify those watersheds where justification of works of improvement via P.L. 566 appears likely.
12. Determination of degree of needed land treatment achieved in the basin by watershed and by county. Describe basis of determination.
13. Analyze agricultural water management in the basin and needed improvements.
14. Locate and describe serious impediments to drainage such as sedimentation and debris accumulation in the channels of the main stem and tributaries having a drainage area of less than 250,000 acres.
15. Identify general soil types and characteristics typical of the basin including generalized map of land classifications.
16. Identify areas suitable for irrigation under current technological conditions without regard for water supply.
17. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

U. S. Department of Agriculture (con't) - Economic Research Service

1. Discuss agriculture as an industry including:
  - (a) unit sizes and their effect on agriculture.
  - (b) type of agriculture.
  - (c) value of products sold.
  - (d) net incomes.
  - (e) investment in agriculture.
  - (f) trade centers and markets.
  - (g) value to basin economy.
  - (h) current trends in agriculture
2. Summarize agricultural production in the basin (current and projected).
3. General discussion of economic impact of various types of development in the basin such as flood control, drainage, irrigation, pollution abatement, recreation, water supply.
4. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

U. S. Department of Agriculture (con't) - Forest Service

1. Summary of woodlands in the basin including location and description of significant tracts.
2. Determination of present and potential future harvest of woodlands.
3. Determine the relationship between woodlands and hydrology in the basin.
4. Recommend needed woodland management techniques.
5. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Bureau of Reclamation

1. Develop plans and alternatives for maximum reasonable in-basin use of the water and related land resources for irrigation, municipal and industrial water and hydroelectric power and for such coordinate purposes as water quality control, recreation, fish and wildlife enhancement, and flood control that are determined to be needed and justified by other cooperative Federal, State and local agencies. Assess the physical, economic and financial feasibility of plans which appear to have the requisites for early implementation.
2. Basin development plans will include studies to determine the ability of basin water supplies to meet long term water needs so that water surplus and water deficit basins can be delineated.
3. Provide information, data and reports as available on development proposals describing the multi-purpose plans, economic feasibility, details of cooperation with other agencies, and extent of local interest if known.
4. Furnish specific items of information from the studies which this agency will accomplish within the limit of time and funds as follows:
  - a. Describe the consumptive irrigation requirements in the basin.
  - b. Describe the suitability of basin lands for irrigation considering the physical and chemical characteristics and fertility of the soil.
  - c. Discuss economics of dryland agriculture vs. irrigated agriculture with regard to the basin and including, where appropriate, secondary effects.

- d. Description and location of all lands in the basin suitable for project irrigation including:
    - (1) lands which occur in tracts of suitable size but for which no water supply is presently available.
    - (2) lands which occur in tracts of sufficient size to appear suitable for project development of ground water.
  - e. Discuss or provide if available and appropriate, anticipated effects of presently considered projects on streamflows.
5. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Corps of Engineers

1. Describe the climate of the basin including temperature and precipitation distribution, growing season, a summary of climatological data and precipitation variability.
2. Summarize the historical floodwater damage as an average annual loss for the basin with information by reach for rural areas along the main stem and tributaries having drainage areas exceeding 250,000 acres and for all communities in excess of 2,500 population. Discussion should include description of extent and character of flood damaged areas.
3. Discuss the outbasin benefits of floodwater detention in the basin.
4. Delineate the erosion problems on the main stem and tributaries having a drainage area in excess of 250,000 acres. Agency authorities applicable to correction of the situation should be described.
5. Inspect all levees, rip rap or other works of improvement along main stem and tributaries having a drainage of over 250,000 acres including identification of trouble areas and discuss agency authorities applicable to correction of the situation.
6. Locate and describe potential reservoir sites in the basin.
7. Summarize past local flood protection project investigations now inactive including date of investigation, general description of plan, extent of study, costs and benefits determined, local interest, reason for discontinuing study.
8. Summarize present local flood protection project investigations completed and awaiting action or still under active study.

Corps of Engineers (continued)

9. Describe multiple-purpose projects now under consideration including the physical plan of development, economic analysis and local interest. Locate and describe serious impediments to drainage such as sedimentation and debris accumulation in the channels of the main stem and tributaries having a drainage area in excess of 250,000 acres.
10. Evaluate the potential for development of navigation in the basin.
11. Evaluate the potential for development of hydropower in the basin.
12. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

Soil and Water Conservation Commission

1. Summarize the general economy of the basin.
2. Summarize the problems and opportunities in the basin.
3. Summarize the alternative potential developments in the basin.
4. Formulate a plan of development for the basin.
5. Prepare specific recommendations for implementation of the proposed plan of development.
6. Coordinate preparation of individual contributions.
7. Write final report.
8. Publish and distribute final report.
9. Describe specific problems including those of short duration which may be foreseen as a result of resource development.

SECTION 3  
OF  
THE STATE WATER PLAN

THE STATUS SUMMARY

S T A T E   W A T E R   P L A N

SECTION 3 -- STATUS SUMMARY

		TENTATIVE PUBLICATION DATE
Volume 1	Proposed Water Resources Development in Nebraska	January 1969
Volume 2	Existing Water Resources Development in Nebraska	August 1970
Volume 3	Summary of Water Resources Development in Nebraska	December 1970

The Status Summary has four major purposes.

1. To summarize the status of projects currently being given consideration with attention to the desirability of the project and the actions necessary for its implementation.
2. To preserve a historical record of water resources development in Nebraska.
3. To assemble, in an organized fashion, general information concerning projects with sufficient detail for analysis and use by those with a special interest in water resources.
4. To make available to the general public a summary of general information concerning water resources development.

To accomplish these purposes, three volumes of the Status Summary are proposed.

Volume 1 will be prepared specifically to accomplish the first purpose.

Volume 2 will be prepared to accomplish purposes two and three.

Volume 3 will be extracted from Volume 2 to meet the fourth purpose.

The individual volume outlines follow

OUTLINE FOR VOLUME I

TITLED

POTENTIAL WATER RESOURCES DEVELOPMENT IN NEBRASKA\*

\*Includes those projects for which a formal report has been prepared by a State or Federal Agency as of the date of publication.

Following this outline of Volume I is an outline typical of a chapter.

INTRODUCTION

Purpose

Scope

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

AGENCY PROCEDURES

U.S. Army Corps of Engineers

U.S. Bureau of Reclamation

Soil Conservation Service

- Chapter 1 White Basin Including Hat Creek
- Chapter 2 Niobrara Basin Including Ponca Creek
- Chapter 3 Loup Basin
- Chapter 4 Elkhorn Basin
- Chapter 5 Upper Platte Basin
- Chapter 6 Middle Platte
- Chapter 7 Lower Platte Basin
- Chapter 8 Republican Basin
- Chapter 9 Little Blue Basin
- Chapter 10 Big Blue Basin
- Chapter 11 Nemaha Basin
- Chapter 12 Minor Missouri Tributaries

TYPICAL CHAPTER OUTLINE  
FOR  
VOLUME I OF THE STATUS SUMMARY

Chapter I - White Basin Including Hat Creek

Basin Map Showing Proposed Projects

Basin Summary of Proposed Projects

Individual Projects

Project Map  
Project Data Table  
Project Narrative

This chapter outline would be repeated for each of the remaining eleven basins.

DATA TO BE INCLUDED IN "PROJECT DATA TABLE"  
FOR EACH PROJECT LISTED IN VOLUME 1 OF THE STATUS SUMMARY  
(Amount will vary depending upon project but may include  
some or all of the following)

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY OR AGENCIES

PROJECT FEATURES

ECONOMIC ANALYSIS

Benefits

Direct (by purpose)

Total (by purpose)

b/c ratio

Direct (by purpose)

Total (by purpose)

Direct (all purposes)

Total (all purposes)

Project Costs

Construction Costs

Federal

State

Local

Estimated Average Annual Operation and Maintenance Cost

Allocated Costs (by purpose)

RESERVOIR DATA

Number of Structures

Storage (by structure)

Initial

Sediment Accumulation

50 year

100 year

Conservation (by purpose)

Flood Control

Surcharge

Area (by structure)

Conservation Pool

Flood Pool

Surcharge Pool

Spillway Capacity

Outlet Works Capacity

Drainage Area Controlled

Land Adquisition

Total Acres to be Procured for Dam, Reservoir & Associated  
Project Features

Fee

Easement

HYDROLOGIC DATA

Water To Be Delivered to Crops Per Acre (full development)

Water To Be Delivered on Farm Per Acre (full development)

Water to Be Diverted (full Development)

Acres To Be Irrigated (full development)

Estimated Return Flow

Net Streamflow Depletion

HYDROLOGIC DATA cont'd

Observed Flood Peaks

Areas Inundated

Flood Damages

DATES OF SIGNIFICANT STEPS TOWARD CONSTRUCTION (Depends on agency procedure)

TYPE OF INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH PROJECT LISTED IN VOLUME I OF THE STATUS SUMMARY  
(Discussion will vary depending on the project and information available)

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY OR AGENCIES

DESCRIPTION OF PROJECT AREA

Physical

Economic

EXTENT OF PROJECT INVESTIGATIONS

BRIEF DESCRIPTION OF PLAN FEATURES

NATURE OF AND NEED FOR DIRECT BENEFITS

NATURE OF AND NEED FOR INDIRECT BENEFITS

EXPLANATION OF PROJECT COSTS

FINANCING ARRANGEMENTS

LOCAL TAXATION IN SUPPORT OF PROJECT

PROVISIONS FOR OPERATION AND MAINTENANCE

OTHER CONTRACTURAL ARRANGEMENTS

CONSTRUCTION SCHEDULE

EXISTING RESOURCE DEVELOPMENTS IN AREA

REMAINING WATER RESOURCE PROBLEMS AND NEEDS OF PROJECT AREA

EFFECT OF PROJECT ON WATER SUPPLY IN PROJECT AREA

CURRENT STATUS OF PROJECT

REMAINING STEPS TO CONSTRUCTION

OUTLINE FOR VOLUME 2  
TITLED  
EXISTING WATER RESOURCES DEVELOPMENT IN NEBRASKA\*

\*Includes those projects which are completed or  
under construction as of the date of publication.

Following this outline of Volume 2 is an outline typical of a chapter.

## INTRODUCTION

Purpose

Scope

## ACKNOWLEDGEMENTS

## TABLE OF CONTENTS

## AGENCY PROCEEDURES

U.S. Army Corps of Engineers

U.S. Bureau of Reclamation

Soil Conservation Service

Nebraska Department of Water Resources

Nebraska Soil and Water Conservation Commission

Chapter 1	White Basin Including Hat Creek
Chapter 2	Niobrara Basin Including Ponca Creek
Chapter 3	Loup Basin
Chapter 4	Elkhorn Basin
Chapter 5	Upper Platte Basin
Chapter 6	Middle Platte Basin
Chapter 7	Lower Platte Basin
Chapter 8	Republican Basin
Chapter 9	Little Blue Basin
Chapter 10	Big Blue Basin
Chapter 11	Nemaha Basin
Chapter 12	Minor Missouri Tributaries

TYPICAL OUTLINE FOR A CHAPTER  
OF VOLUME 2 OF THE STATUS SUMMARY

Section I - Watershed Projects

Basin Map Showing Watershed Projects

Basin Summary of Status of Watershed Projects Completed or Under  
Construction

Individual Projects (by date construction began)

Project Map  
Project Data Table  
Project Narrative

Section II - Other Major Existing Federal Projects

Map of Basin Showing Existing Projects

Basin Summary of Major Federal Projects Completed or Under Construction

Individual Projects (by date construction began)

Project Map or Maps  
Project Data Table  
Project Narrative

Section III - Local Flood Protection Projects

Map of Basin Showing Local Flood Protection Projects

Basin Summary of Local Flood Protection Projects Completed or Under  
Construction

Individual Projects (by date construction began)

Project Maps  
Project Data Table  
Project Narrative

Section IV - Resource Development Districts

Irrigation Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Irrigation Districts (by date organized)

District Map  
District Data Table  
District Narrative

Reclamation Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Reclamation Districts (by date organized)

District Map  
District Data Table  
District Narrative

Drainage Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Drainage Districts (by date organized)

District Map  
District Data Table  
District Narrative

Ground Water Conservation Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Ground Water Conservation Districts (by date organized)

District Map  
District Data Table  
District Narrative

Rural Water Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Rural Water Districts (by date organized)

District Map  
District Data Table  
District Narrative

Public Power Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Public Power Districts (by date organized)

District Map  
District Data Table  
District Narrative

Public Power and Irrigation Districts in Basin

Abstract of Enabling Legislation

Basin Map

Basin Summary

Individual Public Power and Irrigation Districts (by date organized)

District Map  
District Data Table  
District Narrative

Other Resource Development Districts

Section V - Private Ground Water Development

Abstract of Legislation

Basin Map

Basin Summary

Data Table

Basin Narrative

Section VI - Private Surface Water Development

Abstract of Legislation

Basin Map

Basin Summary

Data Table

Basin Narrative

Section VII - Municipal Water Development

Abstract of Legislation

Basin Map

Basin Summary

Data Table

Basin Narrative

TYPICAL DATA TO BE INCLUDED IN "PROJECT DATA TABLE"  
FOR EACH PROJECT LISTED IN  
SECTION 1 - WATERSHED PROJECTS  
OF  
CHAPTER \_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

ECONOMIC ANALYSIS

Period of Economic Analysis

Benefits

Direct (by purpose)

Total (by purpose)

b/c ratio

Direct (by purpose)

Total (by purpose)

Direct (all purposes)

Total (all purposes)

Project Costs

Construction Costs

Federal

State

Local

Allocated Costs (by purposes)

Estimated Average Annual Operation and Maintenance (by structure)

Actual Average Annual Operation and Maintenance (by structure)

RESERVOIR DATA

Number of Structures

Storage (by structure)

Initial

Dead

Sediment

Live Pool

Dead Pool

Conservation (by purpose)

Flood

Surcharge

Area (by structure)

Conservation Pool

Flood Pool

Surcharge Pool

Spillway Capacity

Drainage Area Controlled

Present Rate of Siltation

Lands (for dam, reservoir and associated lands)

Total Acres Procured (by structure)

Fee

Easement

Hydrologic Data

Water to be Diverted (full development)

Water to be Delivered on Farm Per Acre (full development)

Water to be Delivered on Crops Per Acre (full development)

Acres to be Irrigated (full development)

Staged Development of Lands to Be Developed (by years)

HYDROLOGIC DATA            cont'd

Estimated Return Flow

Net Streamflow Depletion

Miles of Unlined Channel or Canal

Miles of Lined Channel or Canal

SIGNIFICANT DATES

Application Received by Commission

Application Approved by Commission

Planning Authorization Received

Preliminary Investigation Completed

Work Plan Completed

Work Plan Accepted By Local Sponsors

Authorized For Installation

Construction Began

Construction Completed

INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH PROJECT LISTED IN  
SECTION 1 - WATERSHED PROJECTS  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

DESCRIPTION OF PROJECT AREA

Physical

Economic

BRIEF DESCRIPTION OF PROJECT FEATURES INCLUDING PURPOSES SERVED

REMAINING WATER RESOURCE PROBLEMS AND NEEDS OF PROJECT AREA

EXPLANATION OF PROJECT COSTS

FINANCING ARRANGEMENTS

LOCAL TAXATION IN SUPPORT OF PROJECT

SUMMARY OF OPERATION AND MAINTENANCE REQUIREMENTS

OTHER CONTRACTURAL ARRANGEMENTS

OTHER RESOURCE DEVELOPMENTS IN AREA

EFFECT ON WATER SUPPLY IN PROJECT AREA

CURRENT STATE OF REPAIR

REMAINING CONSTRUCTION

WHO TO CONTACT FOR FURTHER INFORMATION

TYPICAL DATA TO BE INCLUDED IN "PROJECT DATA TABLE"  
FOR EACH PROJECT LISTED IN  
SECTION 2 - OTHER MAJOR EXISTING FEDERAL PROJECTS  
CHAPTER \_\_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

ECONOMIC ANALYSIS

Period of Economic Analysis

Benefits

Direct (by purpose)

Total (by purpose)

b/c ratio

Direct (by purpose)

Total (by purpose)

Direct (all purposes)

Total (all purposes)

Project Costs

Construction Costs

Federal

State

Local

Allocated Costs (by purposes)

Estimated Average Annual Operation and Maintenance (by structure)

Actual Average Annual Operation And Maintenance (by structure)

RESERVOIR DATA

Number of Structures

Storage (by structure)

Initial

Dead

Sediment

Live Pool

Dead Pool

Conservation (by purpose)

Flood

Surcharge

Area (by structure)

Conservation Pool

Flood Pool

Surcharge Pool

Spillway Capacity

Drainage Area Controlled

Present Rate of Siltation

Lands (for dam, reservoir and associated lands)

Total Acres Procured (by structure)

Fee

Easement

Hydrologic Data

Water to be Diverted (full development)

Water to be Delivered on Farm Per Acre (full development)

Water to be Delivered on Crops Per acre (full development)

Acres to be Irrigated (full development)

Staged Development of Lands to Be developed (by years)

HYDROLOGIC DATA      cont'd

Estimated Return Flow

Net Streamflow Depletion

Miles of Unlined Channel or Canal

Miles of Lined Channel or Canal

SIGNIFICANT DATES

As Appropriate and Consistent With Agency Procedure

INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH PROJECT LISTED IN  
SECTION 2 - OTHER MAJOR EXISTING FEDERAL PROJECTS  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

DESCRIPTION OF PROJECT AREA

Physical

Economic

BRIEF DESCRIPTION OF PROJECT FEATURES INCLUDING PURPOSES SERVED

REMAINING WATER RESOURCE PROBLEMS AND NEEDS OF PROJECT AREA

EXPLANATION OF PROJECT COSTS

FINANCING ARRANGEMENTS

LOCAL TAXATION IN SUPPORT OF PROJECT

SUMMARY OF OPERATION AND MAINTENANCE REQUIREMENTS

OTHER CONTRACTURAL ARRANGEMENTS

OTHER RESOURCE DEVELOPMENTS IN AREA

EFFECT ON WATER SUPPLY IN PROJECT AREA

CURRENT STATE OF REPAIR

REMAINING CONSTRUCTION

WHO TO CONTACT FOR FURTHER INFORMATION

TYPICAL DATA TO BE INCLUDED IN "PROJECT DATA TABLE"  
FOR EACH PROJECT LISTED IN  
SECTION 3 - LOCAL FLOOD PROTECTION PROJECTS  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

ECONOMIC ANALYSIS

Period of Economic Analysis

Benefits

Direct (by purpose)

Total (by purpose)

b/c ratio

Direct (by purposes)

Total (by purposes)

Direct (all purposes)

Total (all purposes)

Project Costs

Construction Costs

Federal

State

Local

Estimated Average Annual Operation and Maintenance Cost

Actual Average Annual Operation and Maintenance Cost

Miles of Levee

Channel Capacity in Area Protected (no damage)

INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH PROJECT LISTED IN  
SECTION 3 - LOCAL FLOOD PROTECTION PROJECTS  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

PROJECT NAME

PROJECT SPONSOR

CONSTRUCTION AGENCY

DESCRIPTION OF PROJECT AREA

Physical

Economic

BRIEF DESCRIPTION OF PROJECT FEATURES INCLUDING PURPOSES SERVED

EXPLANATION OF PROJECT COSTS

FINANCING ARRANGEMENTS

LOCAL TAXATION IN SUPPORT OF PROJECT

SUMMARY OF OPERATION AND MAINTENANCE REQUIREMENTS

OTHER CONTRACTURAL ARRANGEMENTS

CURRENT STATE OF REPAIR

REMAINING CONSTRUCTION

WHO TO CONTACT FOR FURTHER INFORMATION

TYPICAL DATA TO BE INCLUDED IN "DISTRICT DATA TABLE"  
FOR EACH DISTRICT LISTED IN  
SECTION 4 - RESOURCE DEVELOPMENT DISTRICTS  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Due to the variety in types of districts to be included, no effort has been made to list in detail the data to be presented.

Information appropriate to the purpose of the district, the residents and the activities carried out by the district will be included.

INFORMATION TO BE INCLUDED IN "DISTRICT NARRATIVE"  
FOR EACH PROJECT LISTED IN  
SECTION 4 - RESOURCE DEVELOPMENT DISTRICTS  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Area Included

Purposes

Office Location

Description of Plan Features for Work Undertaken

How District is Functioning

Remaining Water Resources Problems and Needs

Where to Obtain Further Information

DATA TO BE INCLUDED IN "DATA TABLE"  
FOR EACH BASIN\* IN  
SECTION 5 - PRIVATE GROUND WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

No. of Registered Wells

Acres Declared Irrigated

Water Withdrawn

Water Returned

Estimated Investment

\* This data will include all development unless private ground water developments of significant size are found which justify individual treatment.

INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH BASIN IN  
SECTION 5 - PRIVATE GROUND WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Distribution of Wells

General Irrigation Practice

Brief History of Development

Value of Irrigation

Available Ground Water Supplies

DATA TO BE INCLUDED IN "DATA TABLE"  
FOR EACH BASIN\* IN  
SECTION VI - PRIVATE SURFACE WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Number of Appropriations

Acres Declared Irrigated

Water Withdrawn

Water Returned

Estimated Investment

\* This data will include all development unless private ground water developments of significant size are found which justify individual treatment.

INFORMATION TO BE INCLUDED IN "PROJECT NARRATIVE"  
FOR EACH BASIN\* IN  
SECTION VI - PRIVATE SURFACE WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Distribution of Withdrawals

General Irrigation Practices

Brief History of Development

Value of Irrigation

Availability of Water Supply

INFORMATION TO BE INCLUDED IN "DATA TABLE"  
FOR EACH MUNICIPALITY LISTED IN  
SECTION VII - MUNICIPAL WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Municipality Name

Present Population

Present Water Use

Average Annual Pumpage

Average Annual Peak Day

Maximum Instantaneous Peak

Water Source

Location

Number of Wells

Type of Wells

Depth of Wells

Pumping Capacity

Standby Capacity

Raw Water Storage

Raw Water Quality

Fe

Mg

Mn

Cu

Treatment

Type

Capacity

Finished Water Storage

Finished Water Quality

Fe

Cu

Mn

Mg

Distribution System

Pumping Capacity

Minimum Main Size

INFORMATION TO BE INCLUDED IN "NARRATIVE"  
FOR EACH MUNICIPALITY LISTED IN  
SECTION VII - MUNICIPAL WATER DEVELOPMENT  
OF  
CHAPTER \_\_\_\_\_ OF VOLUME 2

Municipality Name

Source Quality

Source Quantity

Laboratory Facilities

Testing Program

Treatment Needed

Operating Difficulties

Metering Program

Leakage

Pricing System

OUTLINE FOR VOLUME 3

TITLED

SUMMARY OF WATER RESOURCES DEVELOPMENT IN NEBRASKA\*

\*Extracted From Volume 2 and including only projects which  
*are completed or under construction as of the date of*  
publication.

INTRODUCTION

PURPOSE  
SCOPE  
ACKNOWLEDGEMENTS

TABLE OF CONTENTS

CONSTITUTIONAL PROVISIONS ON WATER

CHAPTER I - STATE ABSTRACT OF STATUS SUMMARIES

SMALL WATERSHED PROJECTS

STATE MAP  
STATE STATUS SUMMARY

LOCAL FLOOD PROTECTION PROJECTS

STATE MAP  
STATE STATUS SUMMARY

OTHER MAJOR EXISTING PROJECTS

STATE MAP  
STATE STATUS SUMMARY

PUBLIC POWER AND IRRIGATION DISTRICTS

STATE MAP  
STATE STATUS SUMMARY

RECLAMATION AND IRRIGATION DISTRICTS

STATE MAP  
STATE STATUS SUMMARY

DRAINAGE DISTRICTS

STATE MAP  
STATE STATUS SUMMARY

GROUND WATER CONSERVATION DISTRICTS

STATE MAP  
STATE STATUS SUMMARY

RURAL WATER DISTRICTS

STATE MAP  
STATE STATUS SUMMARY

PRIVATE GROUND WATER DEVELOPMENT

STATE MAP  
STATE STATUS SUMMARY

PRIVATE SURFACE WATER DEVELOPMENT

STATE MAP  
STATE STATUS SUMMARY

MUNICIPAL WATER DEVELOPMENT

STATE MAP  
STATE STATUS SUMMARY

CHAPTER II - FUNCTIONAL SUMMARY

STATEWIDE SUMMARY

DOMESTIC USE  
FLOOD CONTROL  
IRRIGATION  
FISH & WILDLIFE  
RECREATION  
MUNICIPAL & INDUSTRIAL  
POWER  
    HYDRO  
    COOLING  
DRAINAGE  
WATER QUALITY CONTROL  
NAVIGATION  
OTHER

SECTION 4  
OF  
THE STATE WATER PLAN

THE SPECIAL RECOMMENDATIONS

S T A T E   W A T E R   P L A N

SECTION 4 - SPECIAL RECOMMENDATIONS

		Tentative Publication Date
Volume 1	Flood Prevention and Flood Damage Reduction	January, 1967
Volume 2	Drainage District Simplification	January, 1969
Volume 3	Multipurpose Districts	January, 1969
Volume 4	Classification & Definition of Water	May, 1969
Volume 5	Legal Considerations in Planning	September, 1969
Volume 6	Transbasin Diversion	November, 1969
Volume 7	Preference of Use	February, 1970
Volume 8	Marketability of Water Rights	May, 1970
Volume 9	Groundwater Management and Regulation	August, 1970
Volume 10	Use of Missouri River Flow	October, 1970
Volume 11	Channel Rectification	February, 1971
Volume 12	Delegation of County Authorities	May, 1971
Volume 13	State Sponsorship of Water Projects	August, 1971
Volume 14	Land Use Regulations	August, 1971

## TIME SCHEDULE AND DESCRIPTION OF SPECIAL RECOMMENDATIONS

### Part 4 Special Recommendations

The purpose of the special recommendation is to give individual treatment and detailed consideration to some of the more complex legal problems faced in development of the State Water Plan. The research and advice for this special recommendation will be developed by Commission counsel, aided by legal consultation as need requires and reviewed by the Lawyer Representative Group appointed by the Governor. A list of the special recommendations, a brief description of each recommendation, and the estimated time of publication is listed below.

#### Volume 1 - Flood Prevention and Flood Damage Reduction - January 1967

The purpose of this special recommendation is to point out a method of reducing flood damages through proper land use. This recommendation has already been presented to the Governor and the Legislature and, implemented by passage of L.B. 893 of the 1967 session of the Legislature.

#### Volume 2 - Drainage District Simplification - July 1968

This article will consider codification and simplification of our drainage district laws.

#### Volume 3 - Multipurpose Districts - November 1968

This article will consider the creation of a district with authorities and responsibilities to carry out many water resource activities.

#### Volume 4 - Classification & Definition of Water - March 1969

This study will examine the legal and hydrologic definitions and classifications of water.

#### Volume 5 - Legal Considerations in Planning - July 1969

This volume will supply the legal information for the Framework Plan section of the State Water Plan.

#### Volume 6 - Transbasin Diversion - September 1969

This recommendation will discuss necessary clarification of state laws and the establishment of new criteria to provide for administrative decisions on transbasin diversion projects on a project-by-project basis.

#### Volume 7 - Preference of Use - December 1969

The purpose of this recommendation is to reexamine existing preferences and priorities of the use of water.

#### Volume 8 - Marketability of Water Rights - March 1970

The purpose of this article is to examine the possibility of making water salable and transferable.

#### Volume 9 - Ground water Management and Regulation - June 1970

The purpose of this article is to study and reevaluate the state's position on ground water use.

Volume 10 - Use of Missouri River Flow - August 1970

The purpose of this recommendation is to determine to what extent Missouri River water may be used.

Volume 11 - Channel Rectification - December 1970

This article will review the different districts and political sub-districts that have authority to widen, deepen, straighten or otherwise change courses.

Volume 12 - Delegation of County Authorities - March 1971

The purpose of this article will be to review and suggest needed revisions of the County Flood Control Act which deals with the authorities of cities, municipalities, and counties in various areas of water resource development.

Volume 13 - State Sponsorship of Water Projects - June 1971

The purpose of this article is to study the practicality, feasibility, and desirability of State sponsorship of water projects.

Volume 14 - Land Use Regulation - June 1971

This volume will make an evaluation of the effectiveness and imposition of land use regulations on rural communities.

## EDUCATION WORK GROUP STATEMENT

The Education Work Group was formally organized in April of 1968. Committee representatives include those from different media and agency representatives with public informational responsibilities.

This work group has the advisory responsibility for information dissemination. A seven-man extension team has been organized to handle many of the educational facets of the plan. This committee will depend heavily on the services provided by that team.

The Nebraska Soil and Water Conservation Commission will provide liaison and assistance to the group. The work group will coordinate the timely release of articles with individual news media representatives.

Future activities planned for the remainder of 1968 include the development of a brochure summarizing the Big Blue Basin Report; publishing a brochure on the state water plan; prepare campaign circulars on special recommendations and programs such as drainage districts, multi-purpose districts and flood plain management and investigate the possibility of developing a 16mm film depicting water needs and problems and the necessity for the planning effort. Timely news releases will also be made on various parts of the plan.

PROGRAM OPERATIONS WORK GROUP STATEMENT

This work group has not been organized. Initial responsibilities may include work on flood plain zoning; drainage districts; and the Big Blue Basin.

The organization of the work group will be effected whenever an adequate work load has been built up to assure efficient operation.

