UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY IN THE SOURIS-RED RIVERS BASIN IN MINNESOTA, NORTH DAKOTA, AND SOUTH DAKOTA

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Abstract

Information obtained on water resources by Federal and State agencies in the Souris-Red Rivers basin along the Canadian border in the midwestern United States is available for analysis to address flood, drought, and supply problems. It consists of streamflows, ground water measurements, and quality of water determinations.

This summary contains locations of data sites; lists of current and past studies with titles, objectives, locations, and dates; and available water resources reports. Listed are 46 projects and investigations; 233 active and 145 inactive streamflow gages; 198 active and 252 inactive surface water quality sites; 457 active and 49 inactive ground water level observation wells, some of which are water quality sampling sites; and 252 reports. Four maps are included as an aid in locating the sites.

Water Resources Investigations of the U.S. Geological Survey in the Souris-Red Rivers Basin in Minnesota, North Dakota, and South Dakota

Introduction

This summary provides information on water-resources investigations of the U.S. Geological Survey in the Souris-Red Rivers basin in Minnesota, North Dakota, and South Dakota. The report identifies sites where surface-water, ground-water, and water-quality data have been and are being collected; the data can be obtained by contacting Geological Survey offices as shown in the appendix. Also included is information regarding a variety of water-resources appraisals and special studies in the area, and a bibliography of Survey reports.

The information presented herein has been obtained from several sources. The surface-water and water-quality data are direct retrievals from the NAWDEX (National Water Data Exchange) data base. The ground-water data also have been derived from NAWDEX but were edited to reflect field conditions in 1980 with the help of USGS Districts involved. Information regarding investigations was retrieved from the WRD/MIS (Water Resources Division / Management Information System) data base with only minimal editing. The bibliography was assembled using U.S. Geological Survey information sheets for the States involved.

Water-Resources Appraisals and Special Studies

The location of selected water resources appraisals and special studies are shown in figure 1. Titles of these investigations are as follows:

Title	Index number from figure 1
Water Resources Buffalo River*	1
Pelican River Sand Plain*	2
GW Big Stone County*	3
GW Appraisal Pelican River Sand Plain*	4
Hydrology of Red Lake Peatlands*	5
1979 Flood - Red River*	6
Pomme de Terre - Chippewa GW	7
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GW McHenry and Sheridan Cos., ND*	14
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GW Bottineau and Rolette Cos., ND	16
North Great Plain Aquifer Study	17
Park River Water Quality*	18
West Fargo Aquifer Evaluation	19
GW Towner County, ND	20

The following statewide studies and studies including more than two counties are not referenced on the map:

Title	Location
Hydrology of the Madison Aquifer	Northern Great Plains
Northern Great Plains Aquifer Study	"
Surface Water Stations	Minnesota Statewide
Ground Water Stations	"
Quality of Water Stations	"
Sediment Stations	"
HUD Flood Insurance Studies	"
Minnesota Water Use Data	"
Small Streams Program	"
Flood Plain Coordination	"
SW Data National Eutrophication Study*	"
Flood Hazard Mapping	"
Remote Sensing for Water Management*	"
Reconnaissance of Sand Plain Aquifers	"
Watershed Water Quality Appraisal*	"
Ground Water in Minnesota*	"
Water Quality of Highway Runoff*	"
Underground Injection Control	"

Surface Water Stations	North Dakota Statewide
Ground Water Stations	"
Quality of Water Stations	"
Sediment Stations	"
North Dakota Water Use Data	"
Hydrology, Madison Group*	"
South Dakota Water Use Data	South Dakota Statewide

*Indicates study completed; all others are active.

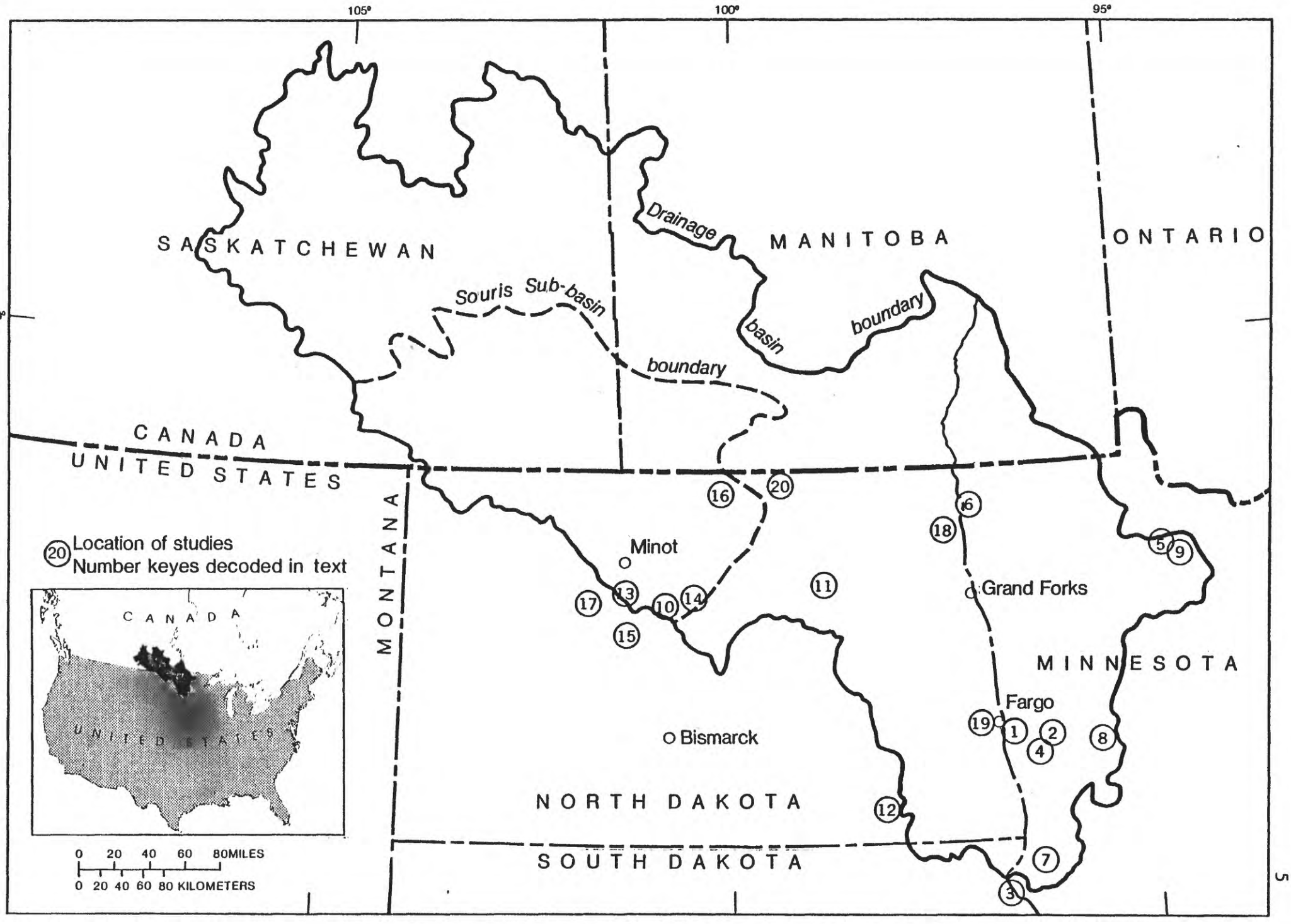

Figure 1. U.S. Geological Survey water-resources appraisals and special studies in the Souris-Red Rivers drainage basin in the United States

Information on water-resource appraisals and special studies is available in the WRD/MIS. See the appendix for directions to obtain further information regarding these studies.

Information has been entered into the MIS data base since May of 1971. Geological Survey investigations that were active then or initiated subsequently are included in MIS and are listed in table 1. Identification codes use two letters to identify the office which has administrative oversight of the project: "CR" stands for Central Region, "MN" for Minnesota District, and "ND" and "SD" for North and South Dakota Districts, respectively. The three-digit number is assigned by the Region or the District sequentially.

Table 1. Water-resources appraisals
and special studies of the U.S. Geological Survey

CR192 Hydrology of the Madison Aquifer	Active

TITLE: Hydrology of the Madison Limestone and Associated Rocks in Parts of Montana, North Dakota, South Dakota, and Wyoming

OBJECTIVE: Evaluate quantity of water that may be available from the Madison, define chemical and physical properties of the water, determine effects of existing developments on potentiometric head, storage, recharge and discharge, spring flow and streamflow, and pattern of ground-water flow, predict possible hydrologic effects of proposed withdrawals of water for large-scale developments at selected rates and locations, determine the better locations for wells and the type of construction and development of deep wells to obtain optimum yields, and design network of observation wells and streamflow gages to monitor effects of additional developments on the hydrologic system.

LOCATION: Northern Great Plains

BEGIN DATE: 75/12

CR230 Northern Great Plains Aquifer Study	Active

TITLE: Northern Great Plains Regional Aquifer Assessment

OBJECTIVE: Both the present and predevelopment ground-water systems will be described in terms of hydraulics, geology, and geochemistry. Once defined, the ground-water system(s) will be simulated by a versatile model that will serve as an investigative and predictive management tool with which to define the availability and quality of ground water and to predict the effects of producing these resources.

LOCATION: Northern Great Plains

BEGIN DATE: 77/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN001 SW Stations	Active

TITLE: SW Stations

OBJECTIVE: A. To collect surface-water data needed for current-purpose uses such as (1) assessment of water resources, (2) operation of reservoirs or industries, (3) forecasting, (4) disposal of wastes and control of pollution, (5) discharge data to accompany water-quality measurements, (6) compact and legal requirements, and (7) research or special studies. B. To collect data necessary for analytical studies to define at any location the statistical properties and trends in the occurrence of water in streams, lakes, reservoirs, and estuaries for use in planning and design.

LOCATION: Minnesota Statewide

BEGIN DATE: 03/05

MN002 GW Stations	Active

TITLE: GW Stations

OBJECTIVE: A. To collect water-level data needed for a continuing long-term evaluation of the response of the 13 principal aquifers to climatic variations and to induced stresses. The data will help define known and potential problems and aid overall planning and management of the ground-water resource. B. To provide a data base against which short-term project records can be analyzed. This analysis must (1) assess ground-water resources, (2) allow prediction of future conditions, (3) define supply problems, and (4) provide the data base necessary for development and management of the resource.

LOCATION: Minnesota Statewide

BEGIN DATE: 47/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN003 QW Stations	Active

TITLE: QW Stations

OBJECTIVE: To provide water-quality data for local, State, and Federal planning and the management of interstate and intrastate water resources. A network of stations is maintained to provide meaningful water-quality data, including concentrations, loads, and time trends needed for water-resource planning and management.

LOCATION: Minnesota Statewide

BEGIN DATE: 55/06

MN004 Sediment stations	Active

TITLE: Sediment stations

OBJECTIVE: To provide a standardized bank of sediment data for broad Federal and State planning and action programs, and to provide data for Federal management of interstate and international waters.

LOCATION: Minnesota Statewide

BEGIN DATE: 67/03

MN006 HUD Flood Insurance Studies	Completed 81/04/16

TITLE: Flood Insurance Studies for Federal Insurance Administration, HUD

OBJECTIVE: To conduct the necessary hydrologic and hydraulic studies of the areas assigned by FIA, on a month to month basis, and to develop the most efficient procedures to attain the accuracy specified by FIA in the most appropriate format with minimum personnel requirements.

LOCATION: Minnesota Statewide

BEGIN DATE: 70/02

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN007 Water-Use Data - Minnesota	Active

TITLE: Minnesota Program for Water-Use Data

OBJECTIVE: To develop a statewide system to collect, store, and disseminate information on water use in Minnesota that is compatible with the U.S. Geological Survey's National Water-Use Data System. The State system will provide ready access to water-use information by planners and managers at all levels, local, State, and Federal.

LOCATION: Minnesota Statewide

BEGIN DATE: 78/10

MN013 Small-Streams Program	Active

TITLE: Small-Streams Flood Investigations

OBJECTIVE: (1) To provide peak-flow data that are essential to proper design of bridges and culverts at proposed waterway crossings. (2) To provide information on drainage basin characteristics and flood volumes that aid in regionalization of streamflow characteristics within the State.

LOCATION: Minnesota Statewide

BEGIN DATE: 58/07

MN015 Flood-Plain Coordination	Active

TITLE: Flood-Plain Hydrology, Hydraulics, and Coordination

OBJECTIVE: Provide flood information for designated reaches of streams and municipalities in a form suitable for flood-plain management. Provide a basis for the State to coordinate, evaluate, and establish local flood-plain management programs and ordinances in Minnesota.

LOCATION: Minnesota Statewide

BEGIN DATE: 72/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN030 SW Data--Natl. Eutrophication Survey Completed 74/12/31

TITLE: Surface Water Information for National Eutrophication Survey

OBJECTIVE: Determine via Field investigations and correlative techniques flow information needed by E.P.A. and furnish in an organized form.

LOCATION: Minnesota Statewide

BEGIN DATE: 72/11

MN031 Flood Hazard Mapping Active

TITLE: Flood hazard information, House Document 465

OBJECTIVE: To delineate on USGS topographic maps the approximate boundaries of areas inundated by the 100-year frequency flood and to make copies of these maps readily available to the public.

LOCATION: Minnesota Statewide

BEGIN DATE: 73/02

MN036 Remote Sensing for Water Management Completed 76/02/27

TITLE: Remote Sensing as an Aid Toward Evaluation of Natural Resources in Minnesota

OBJECTIVE: Major objectives are to: 1) Become acquainted with new techniques developed in remote sensing, 2) determine the availability of remote sensing data in Minnesota, and 3) use remote-sensing techniques to compile a recognizable signature record of different land-surface features and processes that are basic in natural (water)-resources studies. The ultimate objective is to develop remote-sensing capabilities and techniques as tools toward better and more rapid water-resources evaluations and management.

LOCATION: Minnesota Statewide

BEGIN DATE: 74/01

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN040 Reconnaissance of Sand-Plain Aquifers	Active

TITLE: A Hydrogeologic Reconnaissance of Sand-Plain Aquifers in Minnesota

OBJECTIVE: The objectives are to: 1) Delimit the areal extent of sand plains in the state, 2) Compile available data including water use data pertaining to sand-plain aquifers, 3) collect additional representative data in places where information gaps occur, 4) establish a minimum number of monitoring sites to provide background data where future work might be done, and 5) incorporate all information in a report designed to evaluate present available knowledge of sand-plain aquifers and delimit areas where future studies would be helpful.

LOCATION: Minnesota Statewide

BEGIN DATE: 74/07

MN043 Watershed Water-Quality Appraisal	Suspended 76/06/23

TITLE: Water-Quality Appraisals of Selected Watershed Management Projects

OBJECTIVE: The general objective of this project would be to provide a general water-quality reconnaissance for each watershed using a minimum of time and money. Specific objectives would be to 1) Measure the areal variations in water quality; 2) estimate the effect of potential sources of pollution such as municipalities, industries, feed lots, farms, and mines; 3) collect data on background concentrations of nutrients (N and P), organic carbon, common inorganics, bacteria, selected metals, and pesticide compounds.

LOCATION: Minnesota Statewide

BEGIN DATE: 75/04

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN045 Ground Water in Minnesota	Terminated 76/06/39

TITLE: Ground Water in Minnesota

OBJECTIVE: The main objectives are to: (1) map the known extent of major aquifers in the State; (2) quantify areas of water availability from the various aquifers; (3) quantify the distribution of ground-water use; and (4) distinguish the water-quality types in the different aquifer areas. It is intended that an early report, briefly summarizing ground-water conditions, be prepared within the first 6 months of the project. A final report stressing potential problems in ground-water supply and quality will follow.

LOCATION: Minnesota Statewide

BEGIN DATE: 75/07

MN048 Water Quality of Highway Runoff	Terminated 76/06/30

TITLE: Water quality of runoff from highways in Minnesota

OBJECTIVE: Determine the water quality of snowmelt and storm water runoff from selected highways. Emphasis will be placed first on highways in the Twin Cities metropolitan area, with possible later expansion to other highways in other pertinent areas of the State.

LOCATION: Minnesota Statewide

BEGIN DATE: 76/02

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN051 Water Resources Buffalo River — Completed 81/01/09

TITLE: Hydrology of the western part of Buffalo River watershed, west-central Minnesota.

OBJECTIVE: The objectives of the study are to map the extent and thickness of the Buffalo aquifer; determine the availability of water for municipal, industrial, irrigation, and domestic supplies; describe the chemical quality of the water; and provide information on the effects of development on water levels in the aquifer.

LOCATION: West-central Minnesota

BEGIN DATE: 76/10

MN055 Pelican River Sand Plain — Terminated 77/09/30

TITLE: Pelican River Sand Plain Planning Study

OBJECTIVE: The purposes of this study are to determine the feasability of test augering aquifer materials; approximately delineate the areal and vertical extent of the aquifer; and install and monitor observation wells to obtain ground-water records for a future study.

LOCATION: West-central Minnesota

BEGIN DATE: 77/07

MN057 Ground-Water Quality Network — Completed 80/09/30

TITLE: Design for a Ground-Water-Quality Monitoring Network

OBJECTIVE: The major objective of this project is to plan a generalized, ideal ground-water-quality monitoring network which; (1) when implemented will provide baseline data and trends in the water quality of the principle aquifers of the State, and (2) will emphasize areas where such data may assist in evaluating the impact of various types of pollution sources on ground-water quality.

LOCATION: Minnesota Statewide

BEGIN DATE: 77/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey—continued

MN058	GW Big Stone County	Completed 80/09/30

TITLE: Appraisal of Ground Water in Part of Big Stone County, West-Central Minnesota

OBJECTIVE: The objectives of this project are to (1) determine the areal extent and thickness of the near-surface aquifers and, within the constraints of funding, of buried aquifers, (2) estimate the annual volume of recharge to near-surface and buried aquifers under natural conditions, (3) determine the hydraulic properties of the aquifers from drill cuttings and pumping tests, (4) determine the chemical quality of water from the aquifers and its suitability for the common uses, and (5) establish a network of observation wells for monitoring the effects of ground-water development on water levels and storage in each aquifer.

LOCATION: West-central Minnesota

BEGIN DATE: 77/07

MN059	GW Appraisal Pelican R. Sand Plain	Completed 81/06/30

TITLE: Ground-Water Appraisal of the Pelican River Sands Area, West-Central Minnesota

OBJECTIVE: The purposes of the study are to (1) determine the quantity and quality of water available from the surficial and any buried aquifers in the Pelican River Sand Plain, (2) analyze the effects of ground-water development of the surficial aquifer on ground-water storage in that aquifer and on surface water, and (3) evaluate the effects of pumpage from any buried aquifers on ground-water storage in both the buried and surficial aquifers.

LOCATION: West-central Minnesota

BEGIN DATE: 78/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN064 Hydrology of Red Lake Peatlands Completed 81/04/09

TITLE: The Potential Effects of Peat Mining on the Hydrology and Water-Quality of the Red Lake Peatlands, North-Central Minnesota

OBJECTIVE: The objectives are to determine the (1) general hydrology of the peatlands and the detailed hydrology of the Tamarac River watershed, (2) water quality of the Sturgeon, Rapid, and Tamarac Rivers, (3) content of trace metals in the peatlands, and (4) potential effects of mining of peat on the water qualty and hydrology of the Tamarac River watershed in particular, and watersheds of the Rapid and Sturgeon Rivers in general.

LOCATION: North-central Minnesota

BEGIN DATE: 79/07

MN070 1979 Flood--Red River Completed 80/09/30

TITLE: Flood of April 1979 in the Red River of the North

OBJECTIVE: The objectives are to (1) delineate the areal extent of flooding in spring 1979 caused by the Red River of the North from about 5 miles south of Grand Forks, N. Dak. to the Canadian border, (2) compile the high-water profile of the Red River and its principal tributaries in Minnesota and North Dakota, (3) compile peak stages and discharges for the Red River and principal tributaries, and (4) document, with photographs, the effects of the flooding on structures and property.

LOCATION: Red River of the North Basin, MN & ND

BEGIN DATE: 79/06

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN072 Pomme de Terre-Chippewa GW	Active

TITLE: Ground-water Appraisal of the Pomme de Terre and Chippewa Valleys, Western Minnesota

OBJECTIVE: To map the areal extent and thickness of the aquifer, estimate potential well yields, define the availability of water from the aquifer, describe chemical quality of the water, and determine probable effects of development on the aquifer through mathematical analyses and (or) digital-model simulation.

LOCATION: West-central Minnesota

BEGIN DATE: 79/10

MN074 Sand-Plain Aquifer Water Quality	Active

TITLE: Water-Quality Assessment of Sand-Plain Aquifers in West-Central Minnesota

OBJECTIVE: To establish a network for monitoring the quality of ground water in a four-county area and to (1) assess areal and seasonal variability in quality of water in surficial aquifers, and (2) determine long-term changes in quality by comparison of current and previous analyses. The assessment will provide information for developing monitoring programs specifically oriented toward determining long-term trends and effects of certain agricultural practices.

LOCATION: Central Minnesota

BEGIN DATE: 79/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

MN075	Hydrology of Peatlands	Completed 81/04/09

TITLE: Hydrology of Peatlands in Northern Minnesota

OBJECTIVE: To determine (1) the ground-water hydrology of the Red Lake peatlands at a reconnaissance level and of the Tamarac River watershed in detail, (2) the water quality of the Sturgeon, Rapid, and Tamarac Rivers, (3) the concentration of trace metals in the peat, and (4) the potential effects during and after mining on water quality and hydrology of the Tamarac River watershed in particular and watersheds of the Rapid and Sturgeon Rivers in general.

LOCATION: North-central Minnesota

BEGIN DATE: 80/05

MN078	Underground Injection Control	Active

TITLE: Underground Injection Control Program, Minnesota

OBJECTIVE: (1) Delineate the underground sources of drinking water in Minnesota and present the rationale for designating 13 principal aquifers in the State, (2) describe the general geohydrology and geochemistry of the aquifers, (3) show the major aspects of the ground-water system related to underground injection control using maps, geologic sections, and stratigraphic columns, and (4) compile dissolved-solids data and prepare maps showing the areal distribution of dissolved solids for each aquifer.

LOCATION: Minnesota statewide

BEGIN DATE: 80/06

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND001 SW Stations	Active

TITLE: SW Stations

OBJECTIVE: (A) To collect surface water data sufficient to satisfy needs for current-purpose uses, such as (1) assessment of water resources, (2) operation of reservoirs or industries, (3) forecasting, (4) disposal of wastes and pollution controls, (5) discharge data to accompany water quality measurements, (6) compact and legal requirements, and (7) research or special studies. (B) To collect data necessary for analytical studies to define for any location the statistical properties of, and trends in, the occurrence of water in streams, lakes, etc., for use in planning and design.

LOCATION: North Dakota Statewide

BEGIN DATE: 03/07

ND002 GW Stations	Active

TITLE: GW Stations

OBJECTIVE: (A) To collect water level data sufficient to provide a minimum long-term data base so that the general response of the hydrologic system to natural climatic variations and induced stresses is known and potential problems can be defined early enough to allow proper planning and management. (B) To provide a data base against which the short-term records acquired in areal studies can be analyzed. This analysis must 1) provide an assessment of the ground water resource, 2) allow prediction of future conditions, 3) detect and define pollution and supply problems, and 4) provide the data base necessary for management of the resource.

LOCATION: North Dakota Statewide

BEGIN DATE: 71/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND003 QW Stations	Active

TITLE: QW Stations

OBJECTIVE: To provide a national bank of water quality data for broad Federal planning and action programs and to provide data for Federal management of interstate and international waters.

LOCATION: North Dakota Statewide

BEGIN DATE: 46/07

ND004 Sediment Stations	Active

TITLE: Sediment Stations

OBJECTIVE: To provide a national bank of sediment data for use in broad Federal and State planning and action programs and to provide data for Federal Management of interstate and international waters.

LOCATION: North Dakota Statewide

BEGIN DATE: 62/04

ND007 Water Use	Active

TITLE: North Dakota Water-Use Data Acquisition and Dissemination Program

OBJECTIVE: This study will establish a program to provide water-use information for the optimum utilization and management of the state's water resource. The program will collect, store, and disseminate water-use data to complement data on availability and quality of the state's water resource.

LOCATION: North Dakota statewide

BEGIN DATE: 77/11

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND044 Ground Water, McLean County	Completed 73/08/02

TITLE: Ground Water Resources of McLean County, North Dakota

OBJECTIVE: The purpose of the investigation is to determine the quantity and quality of ground water available for municipal, domestic, livestock, industrial, and irrigation uses. Specifically, the objectives are: (1) Determine the location, extent, and nature of the major aquifers; (2) evaluate the occurrence and movement of ground water, including the sources of recharge and discharge; (3) estimate the quantities of water stored in the aquifers; (4) estimate the potential yields to wells tapping the major aquifers; and (5) determine the chemical quality of the ground water.

LOCATION: West-Central North Dakota

BEGIN DATE: 66/07

ND066 Ground Water, Ramsey County	Completed 79/06/25

TITLE: Ground Water Resources of Ramsey County, North Dakota

OBJECTIVE: The purpose of the investigation is to determine the quantity and quality of ground water available for municipal, domestic, livestock, industrial, and irrigation uses. Specifically, the objectives are: (1) Determine the location, extent, and nature of the major aquifers: (2) evaluate the occurrence and movement of Ground Water, including the sources of recharge and discharge; (3) estimate the quantities of water stored in the aquifers; (4) estimate the potential yields of wells tapping the major aquifers; and (5) determine the chemical quality of the ground water.

LOCATION: Northeastern North Dakota

BEGIN DATE: 72/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

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ND067 Ground Water, Dickey-LaMoure Completed 81/10/01

TITLE: Ground Water Resources of Dickey and LaMoure Counties, North Dakota

OBJECTIVE: The primary objective of the investigation is to determine the quantity and quality of ground water available in Dickey and LaMoure Counties for municipal, domestic, livestock, industrial, and irrigation uses. A secondary objective is to develop a simulation model or models of the hydrologic system operating in areas of proposed irrigation in the LaMoure section of the Garrison Diversion unit. Information is needed for these areas on predevelopment ground water conditions so that the impact of future irrigation can be evaluated.

LOCATION: Southeastern North Dakota

BEGIN DATE: 73/07

ND070 Hydrologic Changes Due to Mining Active

TITLE: Hydrologic Changes Due to Lignite Mining in North Dakota Part 1 - Reconnaissance of Strippable Lignite Deposits

OBJECTIVE: The project objectives are to define for each strippable lignite deposit (as identified in publications of the U.S. Bureau of Mines and the U.S. Geological Survey) the following information: 1) A summary of local geologic conditions, 2) description of the local ground water flow system, 3) flow characteristics of the streams, 4) chemical quality of water from streams, lakes, and aquifers, 5) stream sediment loads, and 6) recommendations for more intensive hydrologic studies in probable problem areas.

LOCATION: Western North Dakota

BEGIN DATE: 74/07

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND073 GW, McHenry and Sheridan Cos.	Completed 81/07/20

TITLE: Ground-water Resources of McHenry and Sheridan Counties, North Dakota

OBJECTIVE: The purpose of the investigation is to determine the quantity and quality of ground water available for municipal, domestic, livestock, industrial, and irrigation uses. Specifically, the objectives are: (1) determine the location, extent, and nature of the major aquifers; (2) evaluate the occurrence and movement of ground water, including the sources of recharge and discharge; (3) estimate the quantities of water stored in the aquifers; (4) estimate the potential yields to wells tapping the major aquifers; and (5) determine the chemical quality of the ground water.

LOCATION: North Central North Dakota

BEGIN DATE: 75/07

ND078 Hydrology Madison Group, ND	Completed 80/09/30

TITLE: Hydrology of the Madison Group and Associated Rocks in the Williston Basin, North Dakota

OBJECTIVE: Evaluate the physical properties of the aquifers associated with the Madison Group and associated rocks; define chemical and physical properties of the water; evaluate the effects of potential development on aquifer heads, storage, recharge and discharge; effects on pattern of ground-water flow; and to predict possible hydrologic effects of proposed withdrawals of water for large-scale developments at selected rates and locations.

LOCATION: North Dakota statewide

BEGIN DATE: 76/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND079 Water monitoring - Coal mining, ND	Active

TITLE: Water Resources Monitoring West Central Coal Region, North Dakota

OBJECTIVE: The objective of the program is to determine the characteristics of the regional water-resources system and to detect and document changes in the system or in its components that may be associated with coal mining should changes occur.

LOCATION: West Central North Dakota

BEGIN DATE: 77/01

ND081 Ground Water Bottineau-Rolette, ND	Active

TITLE: Ground-Water Resources of Bottineau and Rolette Counties, North Dakota

OBJECTIVE: The purpose of the investigation is to determine the quantity and quality of ground water available for municipal, domestic, livestock, industrial, and irrigation uses. Specifically, the objectives are: (1) determine the location, extent, and nature of the major aquifers; (2) evaluate the occurrence and movement of ground water, including the sources of recharge and discharge; (3) estimate the quantities of water stored in the aquifers; (4) estimate the potential yields to wells tapping the major aquifers; (5) determine the chemical quality of the ground water; and (6) identify current and potential use of ground water.

LOCATION: North Central North Dakota

BEGIN DATE: 77/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND083 North Great Plains Aquifer Study — Active

TITLE: Northern Great Plains Regional Aquifer Assessment in North Dakota

OBJECTIVE: The purpose of this study is to assess the availability and quality of water in the Cretaceous and Tertiary rocks in the Northern Great Plains. The specific objectives are to determine (1) aquifer boundaries, depths, and thicknesses; (2) hydrologic properties of the aquifers; (3) the storage capacity of the aquifers; (4) estimated sustained yields of the aquifers; (5) the quality of the water and the source of any pollutants found therein; (6) sources of recharge and discharge; and (7) effects of withdrawals, both on the aquifer systems and on surface-water supplies in areas where there are hydraulic connections.

LOCATION: Western and central North Dakota

BEGIN DATE: 77/10

ND084 Park River Water-Quality Assessment — Completed 80/04/14

TITLE: Reconnaissance Water-Quality Assessment of the North and Middle Branch Park River Watersheds.

OBJECTIVE: (1) Assessment of the North and Middle Branch Park River watersheds to delineate present quality of surface water and determine major environmental factors controlling the water quality. (2) Design a monitoring program that will provide the Soil Conservation Service with: (a) base line QW conditions in the North Branch Park River watershed, (b) base line QW conditions in the Middle Branch Park River watershed, and (c) indications of changes in QW conditions in the North Branch Park River watershed as future works of improvement (flood control, dams, etc.) are implemented. (3) Develop recommendations for further reconnaissance sampling necessary to better define processes controlling water-quality in the North Branch Park River watersheds.

LOCATION: Northeastern N.D. Park River watershed

BEGIN DATE: 78/04

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

ND088 West Fargo Aquifer Evaluation	Active

TITLE: Evaluation of Hydrologic Effects of Withdrawal on the West Fargo Aquifer

OBJECTIVE: (1) To simulate effects of pumping through the use of conceptual and digital models; and (2) to aid management agencies in decision-making processes through prediction of the effects of proposed development of the aquifer.

LOCATION: Eastern Cass County, North Dakota

BEGIN DATE: 79/10

ND090 Ground Water, Towner County, ND	Active

TITLE: Ground-Water Resources of Towner County, North Dakota

OBJECTIVE: The purpose of the investigation is to determine the quantity and quality of ground water available for municipal, domestic, livestock, industrial, and irrigation uses. Specifically, the objectives are: (1) determine the location, extent, and nature of the major aquifers; (2) evaluate the occurrence and movement of ground water, including the sources of recharge and discharge; (3) estimate the quantities of water stored in the aquifers; (4) estimate the potential yields to wells tapping the major aquifers; (5) determine the chemical quality of the ground water; and (6) identify current and potential use of ground water.

LOCATION: North-Central North Dakota

BEGIN DATE: 79/10

Table 1. Water-resources appraisals and special studies of the U.S. Geological Survey--continued

SD007 Water Use	Active

TITLE: South Dakota Water-Use Data Program

OBJECTIVE: To develop a statewide water-use data program that will include field collection procedures and computer storage, retrieval, manipulation, and dissemination of water-use data. During the first year of the project water-use data collection techniques will be developed and evaluated and the requirements for a water-use data handling system will be identified.

LOCATION: South Dakota Statewide

BEGIN DATE: 78/10

Surface-Water Data Sites

Surface water data sites in the Souris-Red Rivers basin are listed in tables 2a and 2b for streamflow and lake level, and 3a and 3b for water-quality sites. Table 2 and 3 are presented in two parts to reflect active and inactive sites for each. In the following tables 2a-3b, in the column entitled "Type of Site," "SW" stands for surface water and "LK" stands for lake. Partial record sites are identified with an asterisk (*), and international gaging stations are identified with an (I) in table 2a. In table 3a, NASQAN sites are identified with an (N).

The tables, derived from the NAWDEX data base in March 1982, indicate the site identifier code, station name and location, latitude, longitude, type of site, year of start of record, and where appropriate, the last year that record was obtained. The streamflow and lake-level tables also include partial-record stations--a site where limited streamflow and/or water-quality data are collected systematically over a period of years for hydrologic analysis. The data base contains information on the Souris-Red Rivers basin for the years 1860 to 1982.

The tables include some sites where data are collected by agencies other than the U.S. Geological Survey. The first four or five characters in the site identifier code serve to designate the operating agency, as shown below.

Code	Agency
CAX01	Inland Water Directorate, Water Resources Branch Canada
CAX02	Inland Waters Directorate, Water Quality Branch, Canada
MN003	Minnesota Department of Natural Resources
MN004	Otter Tail Power Co., Minnesota
MN012	Minnesota Pollution Control Agency
ND001	North Dakota Game and Fish Department
ND002	North Dakota State Department of Health
USCE	U.S. Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USGS	U.S. Geological Survey, Department of the Interior

Each of these agencies has its own system for identification of surface-water sites and can be consulted directly if further decoding is desired. The Geological Survey uses an eight-digit number as an indicator of the location of the site. The first two digits identify the drainage basin--05 is the Hudson Bay drainage which includes the Souris-Red Rivers basin. The order of the remaining six digits is in a downstream direction along the main stream. A station on a tributary entering upstream from a main-stream station has a number lower than that station. A station on a tributary that enters between two main-stream stations has a number between theirs. A similar order is followed for tributaries of tributaries. Gaps are left in the series of numbers to allow for new stations that may be established.

Of the 234 active streamflow and lake stations, 200 are operated by the Survey in the United States part of the basin and along the international boundary. Of the 145 inactive sites listed, all but 5 were operated by the Survey. There are 198 active surface-water quality sites, of which 114 are operated by the Survey and 84 are operated by State or other Federal agencies, and 252 inactive surface water quality sites, of which 82 were operated by the Survey and 170 by State or other Federal agencies.

In 1980 in the U.S. portion of the Souris-Red Rivers basin, there were 89 active USGS continuous discharge surface-water stations, and 7 lake gages (figure 2), and 38 active USGS QW stations where surface waters are sampled (figure 3). Of the active sites, 35 are duplicated on the surface-water and water-quality maps.

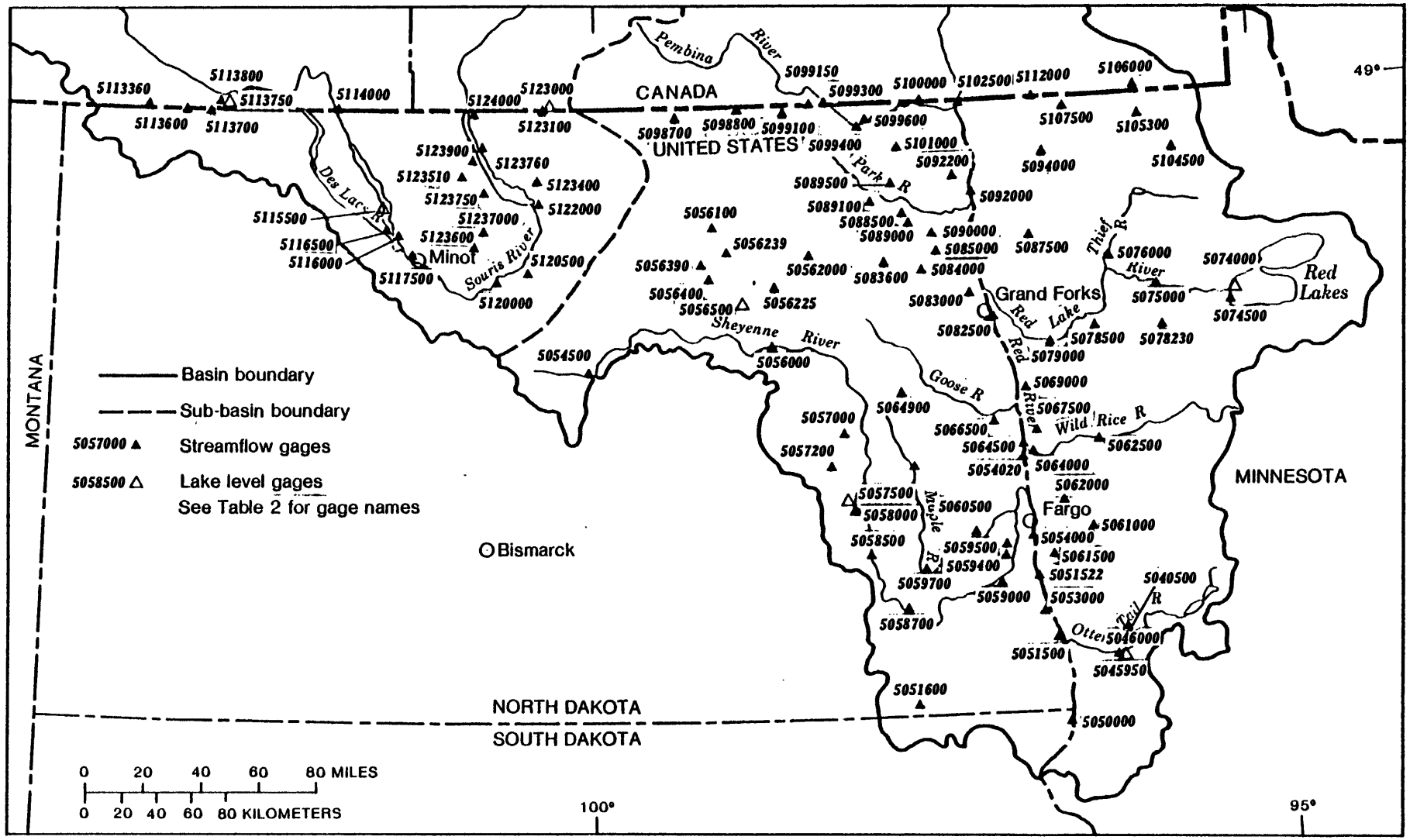

Figure 2. U.S. Geological Survey streamflow and lake-level gages in the U.S. part of the Souris-Red Rivers drainage basin--1980

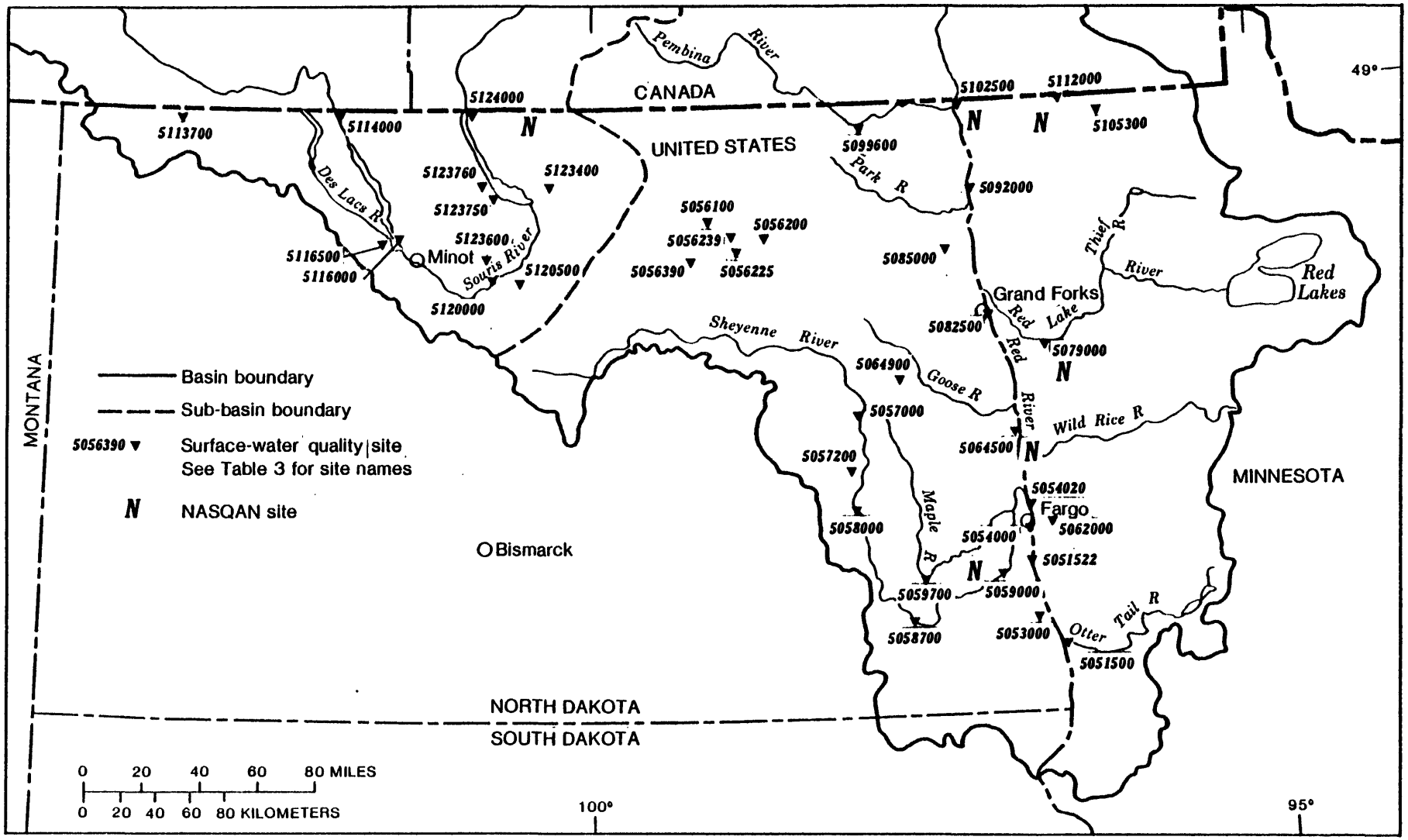

Figure 3. U.S. Geological Survey surface water quality monitoring sites in the U.S. part of the Souris-Red Rivers drainage basin--1980

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USCEPA1A-AB	HOMME RE NR PARK R N DAK	482400	0974600	LK	1949
USCERLAAB	RED LK R AT THIEF R FALLS MINN	480800	0961000	SW	1939
USCERLBBL	RED LK R AT THIEF R FALLS MINN	480800	0961000	SW	1939
USCESHAAB	LISBON DAM AT LISBON N DAK	462650	0974030	LK	1940
USCEWRAAB	WHITE ROCK DAM NR WHEATON MINN	455500	0963400	LK	1941
USCEWRBBL	WHITE ROCK DAM NR WHEATON MINN	455500	0963400	SW	1941
USGS05030140	OTTER TAIL RIVER NORTHWEST OF LUCE, MN	464020	0953956	SW	1968
USGS05030181	OTTER TAIL R AT LITTLE PINE LAKE OU NR PERHA	463736	0953223	SW	1964
USGS05030255	TOAD RIVER NEAR PERHAM, MN	463955	0953127	SW	1967
USGS05030260	TOAD RIVER ABOVE BIG PINE LAKE, NEAR PERHAM,	463905	0953110	SW	1964
USGS05030300	OTTER TAIL RIVER NEAR RICHVILLE, MN	463048	0953104	SW	1967
USGS05030401	OTTER TAIL R AT OTTER TAIL LA OU, NR AMOR, M	462134	0954400	SW	1932
USGS05035400	ST CLAIR LAKE NR DETROIT LAKES, MN	464752	0955249	LK	1968
USGS05040500	PELICAN RIVER NEAR FERGUS FALLS, MN	462010	0960710	SW	1909
USGS05046000	OTTER TAIL RIVER BL ORWELL D NR FERGUS FALLS	461235	0961105	SW	1929
USGS05046900	MUSTINKA RIVER NEAR ELBOW LAKE, MN	455419	0960223	SW	1964
USGS05047700	WEST BRANCH MUSTINKA R TRIB NEAR GRACEVILLE,	453653	0961947	SW	1963
USGS05047800	WEST BRANCH MUSTINKA RIVER NEAR WHEATON, MN	454624	0962256	SW	1964
USGS05049200	EIGHTEEN MILE CREEK NR WHEATON, MN	454718	0963152	SW	1964
USGS05050000	BOIS DE SIOUX RIVER NEAR WHITE ROCK, SD	455145	0963425	SW	1940
USGS05051500	RED RIVER OF THE NORTH AT WAHPETON, ND	461555	0963540	SW	1896
USGS05051520	WHISKY CREEK NEAR KENT, MN			SW	1964
USGS05051522	RED RIVER OF THE NORTH AT HICKSON, ND	463935	0964744	SW	1974
USGS05051525	WOLVERTON C NR COMSTOCK MN	463955	0964420	SW	1964
USGS05051600	WILD RICE RIVER NR RUTLAND, ND	460120	0973040	SW	1958
USGS05051800	GRASS LAKE TRI NR LIDGERWOOD N. DAK.	460445	0971140	SW	1957
USGS05051900	WILD RICE R TRI NR MANTADOR N. DAK.	461015	0970415	SW	1957
USGS05052000	WILD RICE RIVER NEAR MANTADOR, N. DAK.	461021	0970037	SW	1942

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
CAX0105NA00305113360	LONG C AT W XING OF INT BDRY SASK	490001	1032108	SW	1959
CAX0105NB02105113800	SHORT C NR ROCHE PERCEE SASK	490152	1025057	SW	1960
CAX0105OB00705099300	PEMBINA R NR WINDYGATES MAN	490153	0981640	SW	1962
CAX0105OB01605099100	SNOWFLAKE C NR SNOWFLAKE MAN	490117	0983613	SW	1961
CAX0105OC00105102500	RED R OF THE NORTH AT EMERSON MAN	490030	0971240	SW	1912
MN0033-107	TOAD LK	465045	0953015	LK	1970
MN0033-195	HEIGHT OF LAND LK	465245	0953815	LK	1968
MN0033-359	SALLIE LK	464700	0955300	LK	1937
MN0033-475	MELISSA LK	464322	0955445	LK	1968
MN0033-576	BIG CORMORANT LK	464730	0960352	LK	1962
MN0033-588	UPPER CORMORANT LK	464652	0960745	LK	1974
MN0033-602	MIDDLE CORMORANT LAKE	464530	0960600	LK	1971
MN0033386	LITTLE FLOYD LK	465230	0955000	LK	1969
MN00335-3	BRONSON LK	484300	0963700	LK	1937
MN0033576	CORMORANT LK	464800	0960200	LK	1962
MN0034-69	BLACKDUCK LK	474445	0943645	LK	1977
MN00353-242	OTTER TAIL LK	462200	0954300	LK	1937
MN00356-130	BIG PINE LK	463530	0953015	LK	1937
MN00356-141	RUSH LK	462900	0953400	LK	1937
MN00356-475	PICKERAL LK	462600	0954630	LK	1972
MN00356239	WEST BATTLE LAKE	461700	0954200	LK	1972
MN00356475	PICKERAL LAKE	462600	0954900	LK	1972
USCEBALDHILLDAM-AB	LK ASHTABULA AT BALDHILL DAM N DAK	470200	0980500	LK	1949
USCEBALDHILLDAM-BL	BALDHILL DAM AT BALDHILL DAM N DAK	470200	0980500	SW	1949
USCEOTAAB	ORWELL DAM NR FERGUS FALLS MINN	461255	0961040	LK	1953
USCEOTBBL	ORWELL DAM NR FERGUS FALLS MINN	461200	0961100	SW	1953
USCEOTLAAB	OTTERTAIL LK NR OTTERTAIL LK MINN	462200	0954400	LK	1963
USCEOTLBBL	OTTERTAIL LK NR OTTERTAIL LK MINN	462200	0954400	LK	1963

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05052500	ANTELOPE CREEK AT DWIGHT, N. DAK.	461841	0964403	SW	1942
USGS05053000	WILD RICE RIVER NR ABERCROMBIE, ND	462805	0964700	SW	1896
USGS05054000	RED RIVER OF THE NORTH AT FARGO, ND	465140	0964700	SW	1881
USGS05054500	SHEYENNE RIVER ABOVE HARVEY, ND	474210	0995655	SW	1954
USGS05056000	SHEYENNE RIVER NR WARWICK, ND	474820	0984257	SW	1948
USGS05056020	MAUVAIS COULEE TRIBUTARY NEAR BISBEE, N. DAK	483100	0992310	SW	1954
USGS05056040	MAUVAIS COULEE TRIB NO. 2 NR CANDO, N. DAK.	482910	0992420	SW	1954
USGS05056060	MAUVAIS COULEE TRIB NO. 3 NR CANDO, N. DAK.	482720	0991240	SW	1954
USGS05056080	MAUVAIS COULEE TRIB NO. 4 NR BISBEE, N. DAK.	482910	0992650	SW	1954
USGS05056100	MAUVAIS COULEE NR CANDO, ND	482653	0990608	SW	1953
USGS05056200	EDMORE COULEE NR EDMORE, ND	482014	0983933	SW	1955
USGS05056220	SWEETWATER LAKE AT SWEETWATER, ND	481237	0985215	LK	1949
USGS05056225	WEBSTER COULEE AT WEBSTER, ND	481655	0985345	SW	1980
USGS05056239	STARKWEATHER COULEE NR WEBSTER, ND	481913	0985623	SW	1979
USGS05056250	LAKE ALICE NR CHURCHS FERRY, ND	482107	0990542	LK	1954
USGS05056260	LAKE IRVINE NR CHURCHS FERRY, ND	481657	0991025	LK	1954
USGS05056390	LITTLE COULEE NR BRINSMADE, ND	481118	0991436	SW	1974
USGS05056400	BIG COULEE NR CHURCHS FERRY, ND	481040	0991315	SW	1949
USGS05056405	BIG COULEE AT GRAHAM IS INLET NR FT TOTTEN,	480225	0990250	SW	1955
USGS05056500	DEVILS LAKE NR DEVILS LAKE, ND	480400	0985607	LK	1867
USGS05056505	NARROWS OF DEVILS LAKE NR DEVILS LAKE, ND	480136	0985344	LK	1949
USGS05056506	MISSION BAY OF DEVILS LAKE NR DEVILS LAKE, N	480136	0985343	LK	1949
USGS05056570	EAST DEVILS LAKE NR HAMAR, ND	475702	0983634	LK	1949
USGS05056630	EASTERN STUMP LAKE NR LAKOTA, ND	475204	0982133	LK	1949
USGS05056670	WESTERN STUMP LAKE NR LAKOTA, ND	475448	0982326	LK	1949
USGS05056900	SHEYENNE R TRI NR COOPERSTOWN N. DAK.	472725	0980025	SW	1958
USGS05056950	SHEYENNE R TRI NO. 2 NR COOPERSTOWN N. DAK.	472620	0980135	SW	1958
USGS05057000	SHEYENNE RIVER NR COOPERSTOWN, ND	472601	0980143	SW	1943

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05057200	BALDHILL CREEK NR DAZEY, ND	471345	0980728	SW	1949
USGS05058000	SHEYENNE RIVER BELOW BALDHILL DAM, ND	470150	0980550	SW	1947
USGS05058500	SHEYENNE RIVER AT VALLEY CITY, N. DAK.	465450	0980030	SW	1881
USGS05058700	SHEYENNE RIVER AT LISBON, ND	462649	0974044	SW	1949
USGS05059000	SHEYENNE RIVER NR KINDRED, ND	463735	0970005	SW	1946
USGS05059400	SHEYENNE RIVER NR HORACE, ND	464813	0965413	SW	1979
USGS05059500	SHEYENNE RIVER AT WEST FARGO, ND	465328	0965424	SW	1902
USGS05059600	MAPLE RIVER NR HOPE, ND	471930	0974725	SW	1963
USGS05059700	MAPLE RIVER NR ENDERLIN, ND	463718	0973425	SW	1956
USGS05059800	SWAN CREEK NEAR ABSARAKA, N. DAK.	465830	0972130	SW	1954
USGS05059850	SWAN CREEK TRIBUTARY NEAR AYR, N. DAK.	465830	0973000	SW	1954
USGS05059900	SWAN CREEK NEAR CASSELTON, N. DAK.	465500	0971530	SW	1954
USGS05059950	SWAN CREEK TRIBUTARY NEAR CASSELTON, N. DAK.	465310	0971240	SW	1954
USGS05060000	MAPLE RIVER NR MAPLETON, ND	465140	0970610	SW	1943
USGS05060500	RUSH RIVER AT AMENIA, ND	470100	0971250	SW	1946
USGS05060600	SHEYENNE R NR. HARWOOD N DAK	470005	0965340	SW	1969
USGS05060800	BUFFALO RIVER NEAR CALLAWAY, MN.	470117	0955443	SW	1959
USGS05060820	BUFFALO R NR OGEMA MN			SW	1970
USGS05061000	BUFFALO RIVER NEAR HAWLEY, MN	465100	0961945	SW	1920
USGS05061080	DEERHORN CREEK NEAR LAWNDALE, MN	463445	0962917	SW	1970
USGS05061100	S B BUFFALO R NR BARNESVILLE MN	463929	0963457	SW	1964
USGS05061200	WHISKY CREEK AT BARNESVILLE, MN	463935	0962354	SW	1960
USGS05061400	HAY CREEK ABOVE DOWNER, MN.	464437	0962512	SW	1960
USGS05061490	STONY CREEK NEAR SABIN, MN	464448	0963626	SW	1964
USGS05061500	SOUTH BRANCH BUFFALO RIVER AT SABIN, MN	464620	0963740	SW	1944
USGS05062000	BUFFALO RIVER NEAR DILWORTH, MN	465740	0963940	SW	1930
USGS05062280	MOSQUITO CREEK NEAR BAGLEY, MN.	472702	0952255	SW	1960
USGS05062335	WILD RICE R NR ROY LK MN			SW	1964

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05062435	WHITE EARTH R NR MAHNOMEN MN			SW	1964
USGS05062440	WILD RICE R AT MAHNOMEN MN	471840	0955715	SW	1964
USGS05062465	MARSH C NR MAHNOMEN MN			SW	1964
USGS05062470	MARSH CREEK TRIBUTARY NEAR MAHNOMEN, MN.	471931	0960441	SW	1960
USGS05062500	WILD RICE RIVER AT TWIN VALLEY, MN	471600	0961440	SW	1908
USGS05062650	WILD RICE R TR AT HEIBERG MN	471655	0961630	SW	1964
USGS05062700	WILD RICE RIVER TRIB. NR TWIN VALLEY, MN.	471747	0961942	SW	1960
USGS05062800	COON CREEK NEAR TWIN VALLEY, MN.	471551	0962034	SW	1961
USGS05063200	SPRING CREEK TRIBUTARY NEAR OGEMA, MN.	470722	0955735	SW	1962
USGS05063220	S B WILD RICE R NR WHITE EARTH MN	470437	0960027	SW	1964
USGS05064000	WILD RICE RIVER AT HENDRUM, MN	471605	0964750	SW	1943
USGS05064500	RED RIVER OF THE NORTH AT HALSTAD, MN	472100	0965100	SW	1896
USGS05064900	BEAVER CREEK NR FINLEY, ND	473540	0974218	SW	1963
USGS05065100	RUSH LAKE NR FINLEY N DAK	473300	0973900	LK	1965
USGS05065102	GOLDEN LAKE NR FINLEY N DAK	473400	0973800	LK	1965
USGS05065104	NORTH LAKE NR FINLEY N DAK	473500	0973800	LK	1965
USGS05065500	GOOSE RIVER NEAR PORTLAND, N. DAK.	473220	0972720	SW	1938
USGS05065700	MIDDLE BRANCH GOOSE RIVER NR FINLEY, N. DAK.	473325	0974500	SW	1964
USGS05065800	MIDDLE BR GOOSE RIVER TRI NR FINLEY, N DAK	472805	0974620	SW	1964
USGS05066500	GOOSE RIVER AT HILLSBORO, ND	472420	0970340	SW	1881
USGS05067500	MARSH RIVER NEAR SHELLY, MN	472445	0964550	SW	1943
USGS05067900	SAND HILL RIVER AT FERTILE, MN	473150	0961550	SW	1964
USGS05069000	SAND HILL RIVER AT CLIMAX, MN	473643	0964852	SW	1942
USGS05073560	SHOTLEY BK NR SHOTLEY MN			SW	1964
USGS05073600	SOUTH BRANCH BATTLE RIVER AT NORTHOME, MN.	475220	0941750	SW	1959
USGS05073630	S B BATTLE R NR KELLIHER MN			SW	1964
USGS05073750	S. B. CORMORANT RIVER TRIB. NR BLACKDUCK, MN	474620	0943120	SW	1959
USGS05073770	BLACKDUCK R AT QUIRING MN			SW	1964

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05073790	N B CORMORANT R NR SHOOKS MN			SW	1964
USGS05073800	PERRY CREEK NEAR SHOOKS, MN.	475200	0943250	SW	1959
USGS05073980	SANDY R NR RED LAKE MN			SW	1964
USGS05074500	RED LAKE RIVER NEAR RED LAKE, MN	475727	0951635	SW	1933
USGS05075000	RED LAKE RIVER AT HIGH LANDING NR GOODRICH,	480234	0954828	SW	1928
USGS05075700	MUD R NR GRYGLA MN			SW	1970
USGS05076000	THIEF RIVER NEAR THIEF RIVER FALLS, MN	481108	0961011	SW	1908
USGS05076600	RED LAKE R. TRIB. NR THIEF RIVER FALLS, MN.	480444	0961215	SW	1961
USGS05078180	SILVER CREEK NEAR CLEARBROOK, MN.	473843	0952633	SW	1959
USGS05078200	SILVER CREEK TRIBUTARY AT CLEARBROOK, MN.	474149	0952550	SW	1959
USGS05078230	LOST RIVER AT OKLEE, MN	475035	0955130	SW	1949
USGS05078340	HILL R AT BROOKS MN			SW	1970
USGS05078380	POPLAR RIVER NR BROOKS, MN	474813	0960330	SW	1964
USGS05078400	CLEARWATER RIVER TRIBUTARY NEAR PLUMMER, MN.	475234	0960835	SW	1960
USGS05078490	BADGER C NR RED LK FALLS MN			SW	1970
USGS05078500	CLEARWATER RIVER AT RED LAKE FALLS, MN	475315	0961625	SW	1909
USGS05079000	RED LAKE RIVER AT CROOKSTON, MN	474632	0963633	SW	1896
USGS05079900	BARNUMS C AT GIRARD MN			SW	1964
USGS05082500	RED RIVER OF THE NORTH AT GRAND FORKS, ND	475634	0970310	SW	1881
USGS05082600	ENGLISH COULEE TRIB. NR GRAND FORKS, N. DAK.	475505	0971040	SW	1954
USGS05082610	GRAND MARAIS CREEK NR EAST GRAND FORKS, MN	480109	0970113	SW	1970
USGS05082680	SALTWATER COULEE TRIB. NR EMERADO, N. DAK.	475300	0972155	SW	1954
USGS05082700	SALTWATER COULEE NEAR EMERADO, N. DAK.	475555	0971540	SW	1949
USGS05082900	FRESHWATER COULEE NEAR EMERADO, N. DAK.	475600	0971400	SW	1954
USGS05083000	TURTLE RIVER AT MANVEL, N. DAK.	480443	0971103	SW	1944
USGS05083500	RED RIVER OF THE NORTH AT OSLO, MN	481135	0970825	SW	1935
USGS05083600	MIDDLE BRANCH FOREST RIVER NR WHITMAN, ND	481450	0980700	SW	1959
USGS05084000	FOREST RIVER NR FORDVILLE, ND	481150	0974349	SW	1939

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05085000	FOREST RIVER AT MINTO, ND	481610	0972210	SW	1881
USGS05087500	MIDDLE RIVER AT ARGYLE, MN	482027	0964902	SW	1944
USGS05089000	SOUTH BRANCH PARK RIVER BELOW HOMME DAM, ND	482407	0974655	SW	1948
USGS05089100	MIDDLE BRANCH PARK RIVER NR UNION, ND	483232	0980110	SW	1964
USGS05089200	NORTH BRANCH PARK RIVER AT GARDAR, ND	483530	0975250	SW	1954
USGS05089500	CART CREEK AT MOUNTAIN, ND	484037	0975141	SW	1954
USGS05089700	CART CREEK AT CRYSTAL, N. DAK.	483520	0973955	SW	1954
USGS05089800	CART CREEK TRIBUTARY NEAR CRYSTAL, N. DAK.	483435	0974115	SW	1954
USGS05090000	PARK RIVER AT GRAFTON, ND	482524	0972430	SW	1881
USGS05092000	RED RIVER OF THE NORTH AT DRAYTON, ND	483420	0970850	SW	1935
USGS05092200	PEMBINA COUNTY DRAIN 20 NR GLASSTON, ND	484149	0972303	SW	1970
USGS05094000	SOUTH BRANCH TWO RIVERS AT LAKE BRONSON, MN	484350	0963950	SW	1927
USGS05098700	HIDDEN ISLAND COULEE NR HANSBORO, ND	485710	0992535	SW	1960
USGS05098800	CYPRESS CREEK NR SARLES, ND	485635	0985705	SW	1961
USGS05099100	SNOWFLAKE CREEK NEAR SNOWFLAKE, MANITOBA	490117	0983613	SW	1960
USGS05099150	MOWBRAY CREEK NEAR MOWBRAY, MANITOBA	490000	0982715	SW	1961
USGS05099300	PEMBINA RIVER NEAR WINDYGATES, MANITOBA	490153	0981640	SW	1961
USGS05099380	PEMBINA RIVER NR VANG, ND	485500	0980323	SW	1962
USGS05099400	LITTLE SOUTH PEMBINA RIVER NR WALHALLA, ND	485155	0980020	SW	1955
USGS05099600	PEMBINA RIVER AT WALHALLA, ND	485450	0975500	SW	1938
USGS05100000	PEMBINA RIVER AT NECHE, ND	485920	0973305	SW	1903
USGS05101000	TONGUE RIVER AT AKRA, ND	484642	0974443	SW	1938
USGS05102500	RED RIVER AT EMERSON, MANITOBA	490030	0971240	SW	1860
USGS05102900	ROSEAU R NR SKIME MN			SW	1971
USGS05104500	ROSEAU RIVER BELOW SOUTH FORK NEAR MALUNG, M	484730	0954440	SW	1928
USGS05105200	HAY C NR SALOL MN			SW	1971
USGS05105300	ROSEAU RIVER BELOW ROSEAU, MN	485328	0954350	SW	1972
USGS05106500	ROSEAU RIVER AT ROSEAU LAKE, MN	485422	0954955	SW	1918

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05107500	ROSEAU RIVER AT ROSS, MN	485437	0955518	SW	1895
USGS05112000	ROSEAU RIVER BELOW STATE DITCH 51 NR CARIBOU	485854	0962746	SW	1916
USGS05113360	LONG C AT WESTERN CROSSING OF INTNL BOUNDARY	490001	1032108	SW	1958
USGS05113450	LONG CREEK TRI 2 NR CROSBY, N. DAK.	485729	1031857	SW	1959
USGS05113470	FILLMORE RE NR CROSBY ND	485750	1031755	SW	1960
USGS05113520	LONG CREEK TRI NR CROSBY N. DAK.	485011	1031919	SW	1959
USGS05113600	LONG CREEK NR NOONAN, ND	485852	1030434	SW	1958
USGS05113700	WEST BRANCH SHORT CREEK NR COLUMBUS, ND	485804	1025104	SW	1977
USGS05113750	E BR SHORT CR RES NEAR COLUMBUS, N. DAK.	485926	1024707	LK	1963
USGS05113800	SHORT C BEL INTNL BDRY NR ROCHE PERCEE, SASK	490142	1025100	SW	1959
USGS05114000	SOURIS RIVER NR SHERWOOD, ND	485924	1015728	SW	1926
USGS05115500	LK DARLING NR FOXHOLM ND	482727	1013514	LK	1936
USGS05116000	SOURIS RIVER NR FOXHOLM, ND	482220	1013018	SW	1904
USGS05116100	SOURIS R TRI NR BURLINGTON N. DAK.	481804	1012513	SW	1958
USGS05116200	DES LACS R TRIBUTARY NR DONNYBROOK, N. DAK.	482935	1015120	SW	1955
USGS05116500	DES LACS RIVER AT FOXHOLM, ND	482214	1013411	SW	1904
USGS05116550	FULLER COULEE AT FOXHOLM, N. DAK.	482145	1013400	SW	1954
USGS05117200	SOURIS R TRI NO. 2 NR BURLINGTON N. DAK.	481517	1012248	SW	1959
USGS05117500	SOURIS RIVER ABOVE MINOT, ND	481445	1012215	SW	1880
USGS05120000	SOURIS RIVER NR VERENDRYE, ND	480935	1004345	SW	1933
USGS05120500	WINTERING RIVER NR KARLSRUHE, ND	481014	1003220	SW	1936
USGS05122000	SOURIS RIVER NR BANTRY, ND	483020	1002604	SW	1936
USGS05123000	LAKE METIGOSHE NEAR BOTTINEAU, N. DAK.	485905	1002052	LK	1931
USGS05123100	OAK CR AT LAKE METIGOSHE OUTLET NR BOTTINEAU	485756	1002147	SW	1952
USGS05123300	OAK CR TRI NR BOTTINEAU N. DAK.	484914	1002438	SW	1954
USGS05123350	OAK CR TRI NO. 5 NR BOTTINEAU, N. DAK.	484914	1002042	SW	1958
USGS05123400	WILLOW CREEK NR WILLOW CITY, ND	483520	1002630	SW	1956
USGS05123510	DEEP RIVER NR UPHAM, ND	483503	1005144	SW	1950

Table 2a--Streamflow and lake level active monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR
USGS05123520	EGG CREEK NEAR GLENBURN, N. DAK.	482915	1012415	SW	1954
USGS05123540	EGG CREEK NEAR RUTHVILLE, N. DAK.	482625	1011755	SW	1954
USGS05123560	EGG CREEK TRIBUTARY NEAR DEERING, N. DAK.	482215	1010910	SW	1954
USGS05123580	EGG CREEK NEAR DEERING, N. DAK.	482035	1010720	SW	1954
USGS05123600	EGG CREEK NR GRANVILLE, ND	482118	1004919	SW	1955
USGS05123700	CUT BANK CREEK AT N LAKE OUTLET NR GRANVILLE	482310	1004600	SW	1955
USGS05123750	CUT BANK CREEK AT UPHAM, ND	483429	1004439	SW	1973
USGS05123900	BOUNDARY CREEK NR LANDA, ND	484846	1005146	SW	1956
USGS05124000	SOURIS RIVER NR WESTHOPE, ND	485947	1005729	SW	1929
USGS06467800	JAMES RIVER TRI NO. 3 NEAR MANFRED, N. DAK.	483840	0994530	SW	1954

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
MN00326-282	LIGHTNING LK	460345	0960500	LK	1937	1969
MN00326282	LIGHTNING LK	460400	0960500	LK	1963	1970
MN0033286	COTTON LK	465300	0954200	LK	1959	1970
MN003451	THIEF LK	482900	0955200	LK	1944	1970
MN00356-383	DEAD LK	462900	0954300	LK	1937	1970
USGS05028500	L BEMIDJI LK NR PONSFORD MN	470500	0953300	LK	1938	1947
USGS05028700	MANY POINT LK NR PONSFORD MN	470300	0953200	LK	1933	1945
USGS05029000	ROUND LK NR PONSFORD MN	470100	0953200	LK	1938	1947
USGS05029200	ICE CRACKING LK NR PONSFORD MN	470100	0953300	LK	1938	1946
USGS05029500	HEIGHT OF LAND LK NR DETROIT LAKES MN	465300	0953800	LK	1938	1954
USGS05030000	OTTER TAIL RIVER NEAR DETROIT LAKES, MINN	465012	0954157	SW	1936	1971
USGS05030050	ACORN LK NR FRAZEE MN	464425	0954440	LK	1937	1946
USGS05030070	WIMAR LK NR FRAZEE MN	464130	0954335	LK	1937	1947
USGS05030100	ROSE LK NR VERGAS MN	463950	0954425	LK	1937	1947
USGS05030120	LONG LK NR VERGAS MN	463930	0954150	LK	1937	1946
USGS05030180	L PINE LK NR PERHAM MN	463740	0953220	LK	1937	1947
USGS05030200	L TOAD LK NR PONSFORD MN	465000	0953300	LK	1937	1947
USGS05030280	PINE LK NR PERHAM MN	463534	0953025	LK	1937	1947
USGS05030350	RUSH LK NR OTTER TAIL MN	462835	0953425	LK	1934	1948
USGS05030400	OTTER TAIL LK NR BATTLE LAKE MN	462135	0954355	LK	1933	1949
USGS05030440	TWIN LKS NR AMOR MN	462445	0954620	LK	1935	1936
USGS05030500	OTTER TAIL R AT GERMAN CHURCH NR FERGUS FALL	462210	0960100	SW	1903	1917
USGS05031500	WALL LK NR FERGUS FALLS MN	461640	0955830	LK	1938	1947
USGS05033800	CAMPBELL CREEK NEAR DETROIT LAKES, MINN.	465329	0955157	SW	1969	1972
USGS05033810	FLOYD LAKE OUTLET NEAR DETROIT LAKES, MINN.	465242	0955023	SW	1969	1972
USGS05033900	PELICAN RIVER AT DETROIT LAKES, MN	464837	0954942	SW	1968	1975
USGS05033940	PELICAN RIVER TRIBUTARY NEAR DETROIT LAKES,	464652	0954801	SW	1968	1970
USGS05033960	SUCKER CREEK NEAR DETROIT LAKES, MINN.	464625	0954823	SW	1968	1970

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
USGS05034000	DETROIT LK NR DETROIT LAKES MN	464700	0955300	LK	1937	1947
USGS05034100	PELICAN R AT DETROIT LK OUT NR DETROIT LAKES	464722	0955200	SW	1968	1975
USGS05035000	LONG LK NR DETROIT LAKES MN	464900	0955300	LK	1937	1946
USGS05035100	LONG LAKE OUTLET NEAR DETROIT LAKES, MN	464833	0955326	SW	1967	1971
USGS05035200	W BR CO DITCH NO.14 NR DETROIT LAKES, MINN.	464848	0955220	SW	1967	1971
USGS05035300	E BR COUNTY DITCH NO. 14 NR DETROIT LAKES, M	464835	0955223	SW	1968	1971
USGS05035500	ST. CLAIR LAKE OUTLET NEAR DETROIT LAKES, MN	464803	0955237	SW	1968	1975
USGS05035600	PELICAN R AT MUSKRAT LK OUT NR DETROIT LAKES	464655	0955257	SW	1968	1975
USGS05037000	SALLIE LK AT SHOREHAM MN	464500	0955400	LK	1937	1947
USGS05037100	PELICAN R AT SALLIE LK OTLT NR DETROIT LAKES	464527	0955357	SW	1968	1975
USGS05039000	MELISSA LK NR SHOREHAM MN	464325	0955450	LK	1937	1957
USGS05039100	PELICAN R AT LK MELISSA OUT NR DETROIT LAKES	464350	0955340	SW	1967	1972
USGS05040000	PELICAN RIVER NEAR DETROIT LAKES, MN	464326	0955456	SW	1942	1953
USGS05040100	PELICAN LK NR PELICAN RAPIDS MN	464030	0960100	LK	1938	1947
USGS05040250	LIZZIE LK NR PELICAN RAPIDS MN	463645	0960200	LK	1938	1948
USGS05040300	PRAIRIE LK NR PELICAN RAPIDS MN	463515	0960415	LK	1937	1947
USGS05040400	LONG LK NR ELIZABETH MN	462605	0960440	LK	1937	1947
USGS05045500	OTTER TAIL R NR FERGUS FALLS MN			SW	1909	1910
USGS05045950	ORWELL LAKE NEAR FERGUS FALLS, MINN.	461255	0961040	LK	1964	1967
USGS05046500	OTTER TAIL R AT BRECKENRIDGE MN	461620	0963440	SW	1931	1946
USGS05047000	MUSTINKA R NR NORCROSS MN	455230	0960720	SW	1940	1947
USGS05047500	MUSTINKA D AB W BR MUSTINKA R NR CHARLESVILL	455325	0962130	SW	1943	1954
USGS05047600	WEST BRANCH MUSTINKA R. NR GRACEVILLE, MN.	453743	0962635	SW	1963	1969
USGS05047850	TWELVE MILE C NR DUMONT MN			SW	1964	1970
USGS05047950	TWELVE MILE C NR WHEATON MN			SW	1964	1970
USGS05048000	MUSTINKA D BL W BR MUSTINKA R NR CHARLESVILL	455320	0962145	SW	1943	1955
USGS05048500	W BR MUSTINKA R BL MUSTINKA D NR CHARLESVILL	455320	0962145	SW	1943	1955
USGS05049000	MUSTINKA RIVER ABOVE WHEATON, MN	454915	0962925	SW	1914	1958

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
USGS05049500	LK TRAVERSE NR BROWNS VALLEY MN	453750	0965110	LK	1936	1946
USGS05050800	WILKIN COUNTY D NR CAMPBELL			SW	1964	1970
USGS05050900	S F RABBIT R NR CAMPBELL MN			SW	1964	1970
USGS05051000	RABBIT RIVER AT CAMPBELL, MN	460540	0962440	SW	1941	1952
USGS05051700	WILD RICE RIVER NR CAYUGA, ND	460730	0972140	SW	1956	1979
USGS05055000	SHEYENNE RIVER NEAR HARVEY, N. DAK.	474725	0995325	SW	1942	1956
USGS05055100	N FK SHEYENNE R NR WELLSBURG N DAK	475234	0994305	SW	1956	1967
USGS05055200	BIG COULEE NEAR MADDOCK, N. DAK.	475730	0993453	SW	1955	1973
USGS05055500	SHEYENNE RIVER AT SHEYENNE, N. DAK.	475020	0990703	SW	1929	1951
USGS05055520	BIG COULEE NR FT. TOTTEN, N. DAK.	475257	0985802	SW	1962	1969
USGS05056150	MAUVAIS CL NR MAZA ND	482300	0970700	SW	1955	1956
USGS05056300	LITTLE COULEE AT LEEDS, N. DAK.	481715	0992655	SW	1954	1973
USGS05056535	EAST BAY DEVILS LAKE NEAR DEVILS LAKE, N. DA	480138	0985243	LK	1970	1972
USGS05059750	MAPLE R NR ENDERLIN ND	464020	0972930	SW	1954	1955
USGS05060750	BUFFALO LK AT RICHWOOD MN	465900	0954900	LK	1937	1947
USGS05062200	ELM RIVER NEAR KELSO, N. DAK.	471730	0970650	SW	1949	1973
USGS05062260	ROCKSTAD LK NR LAKE ITASCA MN	471700	0952400	LK	1938	1947
USGS05062290	TAMARACK LK NR BAGLEY MN	472500	0952700	LK	1937	1946
USGS05062300	LOWER RICE LK NR ZERKEL MN	472300	0952900	LK	1935	1947
USGS05062350	S TWIN LK NR NAYTAH WAUSCH MN	471500	0953900	LK	1937	1947
USGS05062360	SARGENT LK NR NAYTAH WAUSCH MN	471600	0954100	LK	1939	1954
USGS05062400	MCCRANEY LK NR WAUBON MN	471000	0954300	LK	1937	1947
USGS05062410	WHITE EARTH LK NR WHITE EARTH MN	470900	0954600	LK	1937	1947
USGS05063000	WILD RICE RIVER NEAR ADA, MINN.	471550	0963000	SW	1947	1953
USGS05063400	SOUTH BRANCH WILD RICE RIVER NR FELTON, MN	470700	0962500	SW	1959	1970
USGS05063500	SOUTH BRANCH WILD RICE RIVER NEAR BORUP, MN	471140	0963440	SW	1943	1949
USGS05063800	STATE DITCH NO. 45 NEAR FELTON, MN	470200	0963000	SW	1959	1970
USGS05065000	BEAVER C NR HATTON ND	473700	0974000	SW	1954	1957

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
USGS05066000	SB GOOSE R NR PORTLAND ND	473100	0972700	SW	1939	1942
USGS05067000	MARSH RIVER BELOW ADA, MINN.	471750	0963350	SW	1947	1973
USGS05068000	SAND HILL RIVER AT BELTRAMI, MN	473250	0963200	SW	1942	1958
USGS05068500	SAND HILL DITCH AT BELTRAMI, MN	473210	0963200	SW	1943	1958
USGS05073500	UPPER RED LK AT WASKISH MN			LK	1930	1946
USGS05073530	TAMARACK R AT WASKISH MN			SW	1964	1966
USGS05073700	BLACKDUCK LK NR BLACKDUCK MN	474500	0943700	LK	1938	1947
USGS05074000	LOWER RED LAKE NR RED LAKE MN	475727	0951634	LK	1930	1967
USGS05075400	THIEF LK NR MIDDLE RIVER MN	482900	0955700	LK	1933	1946
USGS05075500	THIEF R NR GATZKE MN	482630	0955800	SW	1953	1956
USGS05076500	RED LAKE RIVER AT THIEF RIVER FALLS, MINN.	480640	0961050	SW	1909	1930
USGS05077000	CLEARWATER RIVER NEAR PINEWOOD, MINN.	473900	0950900	SW	1939	1972
USGS05077480	CLEARWATER LK NR LEONARD MN	474400	0951300	LK	1934	1947
USGS05077500	CLEARWATER RIVER NEAR LEONARD, MINN.	474405	0951226	SW	1934	1947
USGS05077700	RUFFY BROOK NEAR GONVICK, MN	474450	0952445	SW	1960	1978
USGS05078000	CLEARWATER RIVER AT PLUMMER, MN	475524	0960246	SW	1938	1979
USGS05078100	LOST RIVER AT GONVICK, MN.	474415	0953110	SW	1959	1972
USGS05078450	MAPLE LK NR MENTOR MN	474100	0960800	LK	1941	1946
USGS05082650	TURTLE R AT MEKINOCK ND	480255	0972150	SW	1954	1955
USGS05084500	FOREST RIVER NEAR MINTO, N. DAK.	481600	0972410	SW	1931	1944
USGS05085500	SNAKE R AT WARREN MN	481150	0964645	SW	1945	1956
USGS05086000	SNAKE R AT ALVARADO MN	481150	0970020	SW	1945	1956
USGS05086500	SNAKE R NR ARGYLE MN	482130	0970400	SW	1945	1945
USGS05087000	MIDDLE R NR STRANDQUIST MN	482201	0963353	SW	1953	1956
USGS05088000	SOUTH BRANCH PARK R NR PARK RIVER, N. DAK.	482450	0975140	SW	1938	1950
USGS05090500	TAMARAC R NR STRANDQUIST MN	482530	0963740	SW	1953	1956
USGS05091000	TAMARAC R AT STEPHEN MN	482658	0965322	SW	1945	1945
USGS05091500	TAMARAC R NR STEPHEN MN	482930	0965720	SW	1945	1955

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
USGS05092500	MIDDLE BRANCH TWO RIVERS NEAR HALLOCK, MN	484556	0965312	SW	1931	1938
USGS05093000	SOUTH BRANCH TWO RIVERS AT PELAN, MINN.	483845	0962315	SW	1928	1956
USGS05093500	BRONSON LK NR LAKE BRONSON MN	484400	0933800	LK	1938	1947
USGS05094500	S B TWO R AT HALLOCK MN	484700	0965500	SW	1938	1947
USGS05095000	TWO RIVERS AT HALLOCK, MINN.	484630	0965552	SW	1911	1943
USGS05095500	TWO RIVERS BELOW HALLOCK, MINN.	484650	0970225	SW	1944	1955
USGS05096000	NORTH BRANCH TWO RIVERS NR LANCASTER, MINN.	485321	0964001	SW	1929	1955
USGS05096500	STATE DITCH NO. 85 NEAR LANCASTER, MN	485202	0964001	SW	1928	1955
USGS05097000	NORTH BRANCH TWO RIVERS AT LANCASTER, MINN.	485144	0964858	SW	1940	1956
USGS05097500	NORTH BRANCH TWO RIVERS NEAR NORTHCOTE, MINN	484906	0970311	SW	1940	1951
USGS05098000	TWO RIVERS BL N B NR HALLOCK MN	484750	0970619	SW	1941	1943
USGS05098500	LK UPSILON NP ST JOHN ND	485753	0995014	LK	1931	1933
USGS05099500	PEMBINA RIVER NEAR WALHALLA, N. DAK.	485332	0975909	SW	1939	1972
USGS05100500	HERZOG CREEK NR CONCRETE, ND	484513	0975422	SW	1954	1977
USGS05101500	TONGUE R AT CAVALIER N DAK	484755	0973735	SW	1937	1951
USGS05102000	TONGUE R NR PEMBINA ND	485510	0971930	SW	1939	1942
USGS05103000	ROSEAU RIVER NEAR MALUNG, MINN.	484545	0954205	SW	1928	1946
USGS05104000	SOUTH FORK ROSEAU RIVER NEAR MALUNG, MINN.	484700	0954416	SW	1911	1946
USGS05105000	ROSEAU R AT ROSEAU MN	485102	0954542	SW	1940	1947
USGS05105500	ROSEAU RIVER NEAR ROSEAU, MINN.	485524	0954602	SW	1918	1960
USGS05107000	PINE CREEK NEAR PINE CREEK, MINN.	485935	0955504	SW	1928	1953
USGS05108000	ROSEAU RIVER NEAR BADGER MINN	485442	0960024	SW	1895	1961
USGS05108500	ROSEAU R NR DUXBY MN	485512	0960422	SW	1929	1956
USGS05109000	BADGER CREEK NEAR BADGER, MINN.	484815	0960144	SW	1928	1938
USGS05109500	ROSEAU RIVER NEAR HAUG MINN	485528	0961226	SW	1918	1961
USGS05110000	ROSEAU R AT OUTLET ST DT 69 NR OAK POINT MN	485616		SW	1939	1942
USGS05110500	ROSEAU R AT HD OF ST DCH 51, NR OAK PT, MINN	485653	0962256	SW	1918	1942
USGS05111000	ROSEAU RIVER AT OAK POINT, MINN.	485848	0962419	SW	1918	1960

Table 2b--Streamflow and lake level inactive monitoring sites in the U.S. portion of the Souris-Red Rivers drainage basin--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	SW BEGIN YEAR	SW END YEAR
USGS05112500	ROSEAU R AT INTERNATIONAL BOUNDARY NR CARIBO	485957	0963020	SW	1932	1961
USGS05113500	LONG CREEK NEAR CROSBY, N. DAK.	485830	1031604	SW	1942	1965
USGS05120200	WINTERING RIVER NR BERGEN, ND	475550	1004015	SW	1955	1978
USGS05121500	SOURIS R NR TOWNER ND	481824	1002739	SW	1933	1941
USGS05122500	WILLOW CREEK AT DUNSEITH, N. DAK.	484912	1000345	SW	1952	1973

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
MN00457025	HOOT LAKE STATION	461700	0960400	SW	1948
MN012BR-3	BUFFALO R AT GEORGETOWN	470431	0964703	SW	1971
MN012BS-0	BOIS DE SIOUX R	461550	0963556	SW	1962
MN012MU0	MUSTINKA R W OF WHEATON	454554	0963806	SW	1975
MN012OT-1	OTTERTAIL R	461602	0963523	SW	1953
MN012RE-300	RED R OF THE NORTH	475428	0970132	SW	1953
MN012RE-403	RED R OF THE NORTH	471047	0964927	SW	1967
MN012RE-536	RED RIVER OF THE NORTH	462215	0963856	SW	1953
MN012RE452	RED RIVER AT FARGO MOORHEAD	465226	0964634	SW	1971
MN012RL-0.2	RED LAKE R	475524	0970100	SW	1953
MN012RROT--1---10A53	OTTERTAIL RIVER AT BRECKENRIDGE	461602	0963523	SW	1953
MN012RRRL-.2---10A53	RED LAKE RIVER-EAST GRAND FORKS	475524	0970100	SW	1953
MN012RRRR-13---10E53	RED RIVER CSAH-18 AT BRUSHVALE	462206	0963921	SW	1953
MN012RRRR296---10E53	RED RIVER AT GRAND FORKS	475428	0970132	SW	1953
MN012RRRR403---10E67	RED RIVER CSAH-39 W. OF PERLEY	471047	0964927	SW	1967
MN012RRRR452---10E71	RED RIVER MAIN & FIRST AT FARGO	465226	0964634	SW	1971
MN012RRRR547---10E67	BOISE DE SIOUX R.AT BRECKENRIDGE	461550	0963556	SW	1962
MN012RRSBR-3-B-14A71	BUFFALO R. USH-75 AT GEORGETOWN	470431	0964703	SW	1971
MN012RRSK1.8-B-14A71	SNAKE R, SH-220 N OF BIG WOODS	482449	0970625	SW	1971
MN012RRTMB19CBB14A71	TWO R. MID BR, USH-75 AT HALLOCK	484724	0965724	SW	1971
MN012RRWI--3-B-14A71	WILD RICE R. USH-75 N OF HENDRUM	471721	0964842	SW	1971
MN012SK1.8	SNAKE RIVER NOTH OF BIG WOODS	482449	0970625	SW	1971
MN012WI-3	WILD RICE R NORTH OF HENDRUM	471721	0964842	SW	1971
MN01204-069-01	LAKE: BLACKDUCK	474420	0943745	LK	1976
MN01204-069-02	LAKE: BLACKDUCK	474330	0943600	LK	1976
MN012053	MUSTINKA R AT SH-117 W OF WHEATO	454554	0963806	SW	1975
MN01236-018-01	LAKE: BARTLETT	475245	0941600	LK	1976
MN01236-018-02	LAKE: BARTLETT	475243	0941626	LK	1976

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
ND00146000097211501	TEWAUKAN	460000	0972115	LK	1954
ND00146542009811250 1	MOON LAKE	465420	0981125	LK	1964
ND00147112009713100 1	HUNTER	471120	0971310	LK	1967
ND00147385009822400 1	RED WILLOW	473850	0982240	LK	1954
ND00147450010034450 1	STRAWBERRY	474500	1003445	LK	1967
ND00147474009829000 1	TOLNA	474740	0982900	LK	1954
ND00147501009906300 1	WARSING	475010	0990630	LK	1963
ND00148163010016000 1	ROUND	481630	1001600	LK	1955
ND00148242009747400 1	HOMME	482420	0974740	LK	1956
ND00157373	LAKE DARLING	483000	1013500	LK	1954
ND00157384	S METIGOSHE	485900	1002200	LK	1954
ND00157385	N METIGOSHE	485900	1002200	LK	1954
ND00238000 3	RED R - GRAND FORK, ND	474537	0965615	SW	1968
ND00238000 5	RED R - PEMBINA, ND	485754	0971413	SW	1968
ND00238000 8	SHEYENNE R - VALLEY CITY, ND	465302	0975948	SW	1967
ND00238001 8	SOURIS R - TOWNER, ND	482105	1002509	SW	1968
ND00238002 1	DELACS R - FOXHOLM, ND	482212	1013413	SW	1968
ND00238002 7	GOOSE RIVER NEAR HILLSBORO	472512	0970102	SW	1971
ND00238003 0	ATELOPE CR SOUTH OF ABERCROMBIE	462303	0964543	SW	1973
ND00238003 1	WILD RICE R N-WEST - ABERCROMBIE	462805	0964700	SW	1973
ND00238003 3	BALD HILL CREEK EAST OF DAZEY	471056	0980352	SW	1973
ND00238003 4	MAPLE RIVER WEST OF FARGO N. D.	465544	0965644	SW	1973
ND00238003 5	RUSH RIVER NORTHWEST OF HARWOOD	465950	0965518	SW	1974
ND00238003 6	ELM RIVER NORTHEAST OF GRANDIN	471601	0965833	SW	1973
ND00238003 7	TURTLE RIVER NORTH OF MANVEL	480513	0971102	SW	1974
ND00238003 8	FOREST RIVER NEAR FORDVILLE N. D	481300	0974823	SW	1973
ND00238003 9	FOREST RIVER NEAR MINTO N. D.	481709	0972147	SW	1973
ND00238004 0	FOREST R 8 MILES EAST OF MINTO	481826	0971123	SW	1973

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
ND002380042	PARK RIVER EAST OF HOOPLE N. D.	483207	0973725	SW	1974
ND002380043	PARK RIVER 3 MILES SOUTH HOOPLE	482906	0973733	SW	1974
ND002380044	PARK R 6 MILES EAST OF PARK R.	482451	0973723	SW	1973
ND002380045	PARK RIVER NORTH OF OAKWOOD N D	482558	0971754	SW	1973
ND002380046	PARK RIVER ON I-29 NORTH DAKOTA	482730	0971124	SW	1973
ND002380047	TONGUE RIVER SOUTHWEST PEMBINA	485606	0971808	SW	1974
ND002380048	PEMBINA RIVER SOUTH OF PEMBINA	485730	0971533	SW	1973
ND002380051	WILLOW CREEK WEST OF WILLOW CITY	483615	0995705	SW	1974
ND002380076	SHEYENNE RIVER @ HARWOOD	470005	0965340	SW	1974
ND002380078	SOURIS R KRAMER NORTH DAKOTA	484103	1004846	SW	1979
ND002380200	EDMORE COULEE NEAR WEBSTER	481510	0984203	SW	1979
ND002380201	SWEETWATER LAKE AT SWEETWATER	481240	0984845	SW	1979
ND002380202	COULEE BTWN MORRISON AND DRY LK	481522	0985233	SW	1979
ND002380203	STARKWEATHER COULEE NR GARSKE	482053	0985236	SW	1979
ND002380204	DRY LAKE <	481549	0985838	SW	1979
ND002380205	DRY LAKE OUTLET NR WEBSTER	481931	0985955	SW	1979
ND002380207	MAUVAIS COULEE NR CANDO <	482653	0990608	SW	1979
ND002380208	WEST BR MAUVIS COULEE NR MAZA	482306	0990812	SW	1979
ND002380210	LAKE ALICE OUTLET <	481925	0990833	SW	1979
ND002380211	LAKE IRVINE OUTLET <	481655	0991017	SW	1979
ND002380214	LITTLE COULEE ABOVE SILVER LK	481318	0992119	SW	1979
ND002380217	MINNEWAUKAN FLATS RD AT CULVERT	480355	0990924	SW	1979
ND002380220	GRAHAM IS INLET TO DEVILS LAKE	480226	0990252	SW	1979
ND002380221	SIX MILE BAY OF DEVILS LAKE	480655	0990039	SW	1979
ND002380222	CREEL BAY OF DEVILS LAKE <	480500	0985609	SW	1979
ND002380225	LAKE UPSILON <	485747	0995000	SW	1979
USEPA05114000	SOURIS RIVER NEAR SHERWOOD	485924	1015728	SW	1974
USFS030159	GILSTAD 4MI S BLACKDUCK,MN.	474010	0953200	LK	1976

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
USGS05040500	PELICAN RIVER NEAR FERGUS FALLS, MN	462010	0960710	SW	1966
USGS05051500	RED RIVER OF THE NORTH AT WAHPETON, ND	461555	0963540	SW	1970
USGS05051510	RED RIVER OF THE NORTH BELOW WAHPETON, N. DA	462230	0963925	SW	1969
USGS05051522	RED RIVER OF THE NORTH AT HICKSON, ND	463935	0964744	SW	1974
USGS05051600	WILD RICE RIVER NR RUTLAND, ND	460120	0973040	SW	1971
USGS05051700	WILD RICE RIVER NR CAYUGA, ND	460730	0972140	SW	1956
USGS05053000	WILD RICE RIVER NR ABERCROMBIE, ND	462805	0964700	SW	1965
USGS05054000	RED RIVER OF THE NORTH AT FARGO, ND	465140	0964700	SW	1945
USGS05054020	RED RIVER OF THE NORTH BELOW FARGO, ND	465550	0964705	SW	1969
USGS05054500	SHEYENNE RIVER ABOVE HARVEY, ND	474210	0995655	SW	1952
USGS05056000	SHEYENNE RIVER NR WARWICK, ND	474820	0984257	SW	1950
USGS05056100	MAUVAIS COULEE NR CANDO, ND	482653	0990608	SW	1970
USGS05056200	EDMORE COULEE NR EDMORE, ND	482014	0983933	SW	1971
USGS05056220	SWEETWATER LAKE AT SWEETWATER, ND	481237	0985215	LK	1960
USGS05056250	LAKE ALICE NR CHURCHS FERRY, ND	482107	0990542	LK	1960
USGS05056260	LAKE IRVINE NR CHURCHS FERRY, ND	481657	0991025	LK	1965
USGS05056390	LITTLE COULEE NR BRINSMADE, ND	481118	0991436	SW	1976
USGS05056400	BIG COULEE NR CHURCHS FERRY, ND	481040	0991315	SW	1961
USGS05056405	BIG COULEE AT GRAHAM IS INLET NR FT TOTTEN,	480225	0990250	SW	1955
USGS05056500	DEVILS LAKE NR DEVILS LAKE, ND	480400	0985607	LK	1954
USGS05056505	NARROWS OF DEVILS LAKE NR DEVILS LAKE, ND	480136	0985344	LK	1948
USGS05056506	MISSION BAY OF DEVILS LAKE NR DEVILS LAKE, N	480136	0985343	LK	1949
USGS05056565	EAST BAY OUTLET OF DEVILS LAKE NR CRARY, ND	480013	0984150	LK	1978
USGS05056570	EAST DEVILS LAKE NR HAMAR, ND	475702	0983634	LK	1958
USGS05056630	EASTERN STUMP LAKE NR LAKOTA, ND	475204	0982133	LK	1949
USGS05056670	WESTERN STUMP LAKE NR LAKOTA, ND	475448	0982326	LK	1949
USGS05057000	SHEYENNE RIVER NR COOPERSTOWN, ND	472601	0980143	SW	1959
USGS05057200	BALDHILL CREEK NR DAZEY, ND	471345	0980728	SW	1955

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
USGS05058000	SHEYENNE RIVER BELOW BALDHILL DAM, ND	470150	0980550	SW	1958
USGS05058500	SHEYENNE RIVER AT VALLEY CITY, N. DAK.	465450	0980030	SW	1949
USGS05058700	SHEYENNE RIVER AT LISBON, ND	462649	0974044	SW	1956
USGS05059000	SHEYENNE RIVER NR KINDRED, ND	463735	0970005	SW	1968
USGS05059400	SHEYENNE RIVER NR HORACE, ND	464813	0965413	SW	1975
USGS05059500	SHEYENNE RIVER AT WEST FARGO, ND	465328	0965424	SW	1949
USGS05059600	MAPLE RIVER NR HOPE, ND	471930	0974725	SW	1972
USGS05059700	MAPLE RIVER NR ENDERLIN, ND	463718	0973425	SW	1970
USGS05060000	MAPLE RIVER NR MAPLETON, ND	465140	0970610	SW	1949
USGS05060500	RUSH RIVER AT AMENIA, ND	470100	0971250	SW	1971
USGS05060600	SHEYENNE R NR. HARWOOD N DAK	470005	0965340	SW	1969
USGS05061000	BUFFALO RIVER NEAR HAWLEY, MN	465100	0961945	SW	1965
USGS05061020	BUFFALO RIVER NEAR GLYNDON, MN	465359	0963634	SW	1977
USGS05061040	SOUTH BRANCH BUFFALO RIVER NEAR LAWNDALE, MN	464331	0963059	SW	1977
USGS05061080	DEERHORN CREEK NEAR LAWNDALE, MN	463445	0962917	SW	1978
USGS05061250	WHISKY CREEK NEAR BAKER, MN	464128	0963637	SW	1977
USGS05061490	STONY CREEK NEAR SABIN, MN	464448	0963626	SW	1978
USGS05061500	SOUTH BRANCH BUFFALO RIVER AT SABIN, MN	464620	0963740	SW	1965
USGS05061700	SOUTH BRANCH BUFFALO RIVER NEAR GLYNDON, MN	465236	0963759	SW	1977
USGS05062000	BUFFALO RIVER NEAR DILWORTH, MN	465740	0963940	SW	1962
USGS05062500	WILD RICE RIVER AT TWIN VALLEY, MN	471600	0961440	SW	1971
USGS05064000	WILD RICE RIVER AT HENDRUM, MN	471605	0964750	SW	1962
USGS05064500	RED RIVER OF THE NORTH AT HALSTAD, MN	472100	0965100	SW	1961
USGS05064900	BEAVER CREEK NR FINLEY, ND	473540	0974218	SW	1965
USGS05065500	GOOSE RIVER NEAR PORTLAND, N. DAK.	473220	0972720	SW	1949
USGS05066500	GOOSE RIVER AT HILLSBORO, ND	472420	0970340	SW	1949
USGS05079000	RED LAKE RIVER AT CROOKSTON, MN	474632	0963633	SW	1962
USGS05082500	RED RIVER OF THE NORTH AT GRAND FORKS, ND	475634	0970310	SW	1949

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
USGS05083500	RED RIVER OF THE NORTH AT OSLO, MN	481135	0970825	SW	1973
USGS05083600	MIDDLE BRANCH FOREST RIVER NR WHITMAN, ND	481450	0980700	SW	1972
USGS05084000	FOREST RIVER NR FORDVILLE, ND	481150	0974349	SW	1970
USGS05085000	FOREST RIVER AT MINTO, ND	481610	0972210	SW	1971
USGS05087500	MIDDLE RIVER AT ARGYLE, MN	482027	0964902	SW	1954
USGS05089000	SOUTH BRANCH PARK RIVER BELOW HOMME DAM, ND	482407	0974655	SW	1970
USGS05089100	MIDDLE BRANCH PARK RIVER NR UNION, ND	483232	0980110	SW	1971
USGS05089130	MIDDLE BRANCH PARK RIVER NR EDINBURG, ND	483012	0974553	SW	1978
USGS05089250	NORTH BRANCH PARK RIVER NR CRYSTAL, ND	483441	0974621	SW	1978
USGS05089500	CART CREEK AT MOUNTAIN, ND	484037	0975141	SW	1971
USGS05089950	NORTH BRANCH PARK RIVER NR NASH, ND	482814	0972857	SW	1978
USGS05090000	PARK RIVER AT GRAFTON, ND	482524	0972430	SW	1969
USGS05092000	RED RIVER OF THE NORTH AT DRAYTON, ND	483420	0970850	SW	1954
USGS05092200	PEMBINA COUNTY DRAIN 20 NR GLASSTON, ND	484149	0972303	SW	1972
USGS05098700	HIDDEN ISLAND COULEE NR HANSBORO, ND	485710	0992535	SW	1971
USGS05098800	CYPRESS CREEK NR SARLES, ND	485635	0985705	SW	1972
USGS05099100	SNOWFLAKE CREEK NEAR SNOWFLAKE, MANITOBA	490117	0983613	SW	1975
USGS05099300	PEMBINA RIVER NEAR WINDYGATES, MANITOBA	490153	0981640	SW	1978
USGS05099380	PEMBINA RIVER NR VANG, ND	485500	0980323	SW	1962
USGS05099400	LITTLE SOUTH PEMBINA RIVER NR WALHALLA, ND	485155	0980020	SW	1961
USGS05099600	PEMBINA RIVER AT WALHALLA, ND	485450	0975500	SW	1962
USGS05100000	PEMBINA RIVER AT NECHE, ND	485920	0973305	SW	1971
USGS05100500	HERZOG CREEK NR CONCRETE, ND	484513	0975422	SW	1971
USGS05101000	TONGUE RIVER AT AKRA, ND	484642	0974443	SW	1970
USGS05102490	RED RIVER OF THE NORTH NEAR PEMBINA, N. DAK.	490010	0971315	SW	1969
USGS05102500	RED RIVER AT EMERSON, MANITOBA	490030	0971240	SW	1977
USGS05105300	ROSEAU RIVER BELOW ROSEAU, MN	485328	0954350	SW	1972
USGS05112000	ROSEAU RIVER BELOW STATE DITCH 51 NR CARIBOU	485854	0962746	SW	1972

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
USGS05113600	LONG CREEK NR NOONAN, ND	485852	1030434	SW	1971
USGS05113700	WEST BRANCH SHORT CREEK NR COLUMBUS, ND	485804	1025104	SW	1978
USGS05114000	SOURIS RIVER NR SHERWOOD, ND	485924	1015728	SW	1970
USGS05116000	SOURIS RIVER NR FOXHOLM, ND	482220	1013018	SW	1970
USGS05116500	DES LACS RIVER AT FOXHOLM, ND	482214	1013411	SW	1946
USGS05117500	SOURIS RIVER ABOVE MINOT, ND	481445	1012215	SW	1969
USGS05120000	SOURIS RIVER NR VERENDRYE, ND	480935	1004345	SW	1946
USGS05120200	WINTERING RIVER NR BERGEN, ND	475550	1004015	SW	1957
USGS05120500	WINTERING RIVER NR KARLSRUHE, ND	481014	1003220	SW	1971
USGS05122000	SOURIS RIVER NR BANTRY, ND	483020	1002604	SW	1970
USGS05123100	OAK CR AT LAKE METIGOSHE OUTLET NR BOTTINEAU	485756	1002147	SW	1971
USGS05123400	WILLOW CREEK NR WILLOW CITY, ND	483520	1002630	SW	1959
USGS05123510	DEEP RIVER NR UPHAM, ND	483503	1005144	SW	1972
USGS05123600	EGG CREEK NR GRANVILLE, ND	482118	1004919	SW	1971
USGS05123700	CUT BANK CREEK AT N LAKE OUTLET NR GRANVILLE	482310	1004600	SW	1971
USGS05123750	CUT BANK CREEK AT UPHAM, ND	483429	1004439	SW	1978
USGS05123760	DEEP RIVER BELOW CUT BANK CREEK NR UPHAM, ND	483614	1004741	SW	1973
USGS05123900	BOUNDARY CREEK NR LANDA, ND	484846	1005146	SW	1971
USGS05124000	SOURIS RIVER NR WESTHOPE, ND	485947	1005729	SW	1953
USGS475750100582500	BOWERS COULEE NEAR VELVA ND	475750	1005825	SW	1975
USGS475840101045500	BONNES C NR SAWYER N.DAK.	475840	1010455	SW	1975
USGS480351100555000	153-080-22AA	480351	1005550	SW	1977
USGS480535100515700	153-079-07AA	480535	1005157	SW	1977
USGS480604100392200	153-078-02DBB	480604	1003922	SW	1977
USGS480732100450600	154-078-30CC	480732	1004506	SW	1977
USGS481047100395600	154-078-11BB	481047	1003956	SW	1977
USGS481337100321100	155-077-23CC	481337	1003211	SW	1977
USGS481850100275800	156-076-20CD	481850	1002758	SW	1977

Table 3a--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, active sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR
USGS482420100314300	157-076-19CA	482420	1003143	SW	1977
USGS484129102144000	NIOBE COULEE NR NIOBE N.DAK 160-090-12DDC	484129	1021440	SW	1975

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
CAX0200MA05OB0001	PEMBINA R NR WINDYGATES	490200	0981630	SW	1960	1977
MN012LRRS-55-BB15E67	ROSEAU RIVER CR-55 AT CARIBOU	485859	0962657	SW	1967	1968
MN012LRRS121-BB15E67	ROSEAU R, CSAH-2 BR AT MALUNG	484634	0954329	SW	1967	1968
MN012OT-49	OTTERTAIL R	461632	0960821	SW	1967	1968
MN012OT-67	OTTERTAIL R	461846	0955847	SW	1967	1968
MN012RE-274	RED R OF THE NORTH	481139	0970826	SW	1960	1974
MN012RE-459	RED R OF THE NORTH	465134	0964647	SW	1967	1971
MN012ROS-121	ROSEAU R	484701	0954405	SW	1967	1968
MN012ROS-55	ROSEAU R	485852	0962655	SW	1967	1968
MN012RROT-49---10A67	OTTERTAIL R., W OF FERGUS FALLS	461632	0960821	SW	1967	1968
MN012RROT-67---14A67	OTTERTAIL R., E OF FERGUS FALLS	461846	0955847	SW	1967	1968
MN012RRRL-23---10A55	RED LAKE RIVER CSAH-12 AT FISHER	474804	0964813	SW	1955	1965
MN012RRRL-56CBB14A55	RED LAKE RIVER W. OF GENTILLY	474722	0962926	SW	1955	1965
MN012RRRR206---10E62	RED R, SH-11 BR W OF ROBBIN	483342	0971031	SW	1962	1965
MN012RRRR274---10E60	RED RIVER, SH-1 BRIDGE AT OSLO	481139	0970826	SW	1960	1974
MN012RRRR358---10E63	RED RIVER, CAR-9, W. OF SHELLY	472719	0965114	SW	1963	1965
MN012RRRR447---10E53	RED R, BR ON BROADWAY ST, FARGO	465548	0964707	SW	1953	1965
MN012RRRR451---10E53	RED R,DOCK AT W.W. INTAKE, FARGO	465135	0962908	SW	1953	1965
MN012RRRR459---10E67	RED RIVER, W.W. INTAKE, MOORHEAD	465134	0964647	SW	1967	1971
MN012TMB-19	MB TWO RIVERS NORTH OF HALLOCK	484724	0965724	SW	1971	1976
ND002CAYUGAND	WILD RICE R	460447	0972325	SW	1968	1973
ND002COOPERSTOWNND	SHEYENNE RIVER HWY 7 CROSSING	472600	0980200	SW	1968	1973
ND002FARGO	RED R	465124	0964810	SW	1968	1973
ND002LAMOURE	JAMES R	462124	0981820	SW	1968	1973
ND002LISBONND	SHEYENNE R CROSSING SOUTH OF TOWN	462500	0974100	SW	1968	1973
ND002MINOT	SOURIS R	481424	1011910	SW	1968	1973
ND002WALHALLAND	PEMBINA R AT WALHALLA	485557	0975416	SW	1968	1973
ND002WARWICKND	SHEYENNE R - HWY 20 CROSSING	474742	0983515	SW	1968	1973

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
ND002WESTHOPE	SOURIS R	485445	1010115	SW	1968	1974
ND002380006	WILD RICE R - CAYUGA, ND	460452	0972328	SW	1968	1972
ND002380007	SHEYENNE R - LISBON, ND	462420	0974022	SW	1968	1973
ND002380009	SHEYENNE R - COOPERSTOWN, ND	472621	0980108	SW	1968	1973
ND002380010	SHEYENNE R - WARWICK, ND	474820	0984302	SW	1968	1973
ND002380011	PEMBINA R - WALHALLA, ND	485449	0975501	SW	1968	1973
ND002380012	JAMES R - LA MOURE, ND	462119	0981821	SW	1967	1973
ND002380019	SOURIS R - WESTHOPE, ND	485430	1005735	SW	1968	1974
ND002380020	SOURIS R - MINOT, ND	481342	1011854	SW	1968	1973
ND002380041	CART C AT HOOPLE	483411	0973720	SW	1975	1975
ND002380050	SOURIS R. NORTH OF SAWYER	480538	1010257	SW	1973	1977
ND002380052	DEEP RIVER WEST OF UPHAM	483615	1004741	SW	1973	1977
ND002380075	SOURIS RIVER WEST OF MOHALL	484550	1014632	SW	1974	1974
USEPAND-0000094-1	AMERICAN CRYSTAL DRAYTON ND	483600	0970900	SW	1974	1975
USEPAND-0000230-2	BURLINGTON NORTHERN MINOT ND	481400	1011730	SS	1975	1979
USEPAND-0000230-4	BURLINGTON NORTHERN RR MINOT	481400	1011730	SW	1975	1975
USEPAND-0022888-1	GRAND FORKS STP	475837	0970331	SW	1975	1975
USEPAPMN803	RGN 8	481500	1014000	ES	1969	1974
USEPAPMR008	RGN 08	481418	1011748	ES	1973	1974
USEPA05060600	SHEYENNE R NR HARDWOOD, N. D.	470005	0965340	SW	1972	1974
USEPA05120000	SOURIS R. NEAR VERENDRYE N. D.	480935	1004345	SW	1972	1974
USEPA05124000	SOURIS RIVER NEAR WESTHOPE, N.D.	485947	1005729	SW	1972	1974
USEPA260501	R R OF NO NEAR MOORHEAD'S STP EF	465315	0964630	SW	1969	1970
USEPA260503	BELOW FARGO-MOORHEAD EFFLUENTS	465600	0964730	SW	1969	1970
USEPA260504	NORTHWEST OF GEORGETOWN, MINN	470530	0964900	SW	1969	1970
USEPA260505	WEST OF PERLEY, MINN	471100	0964915	SW	1969	1970
USEPA260507	WEST OF CLIMAX, MINN	473630	0965130	SW	1969	1970
USEPA260508	WEST OF OSLO, MINN.	481145	0970815	SW	1969	1970

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USEPA260509	MOORHEAD STP INFLUENT	465330	0964630	SW	1969	1970
USEPA260510	MOORHEAD STP TRICKLING FILTER	465330	0964630	SW	1969	1969
USEPA260511	MOORHEAD STP ACTIVATED SLUDGE	465330	0964630	SW	1969	1970
USEPA260512	MOORHEAD STP COMBINATION EFF.	465330	0964630	SW	1969	1970
USEPA260514	MOORHEADS 2ND AVE S LIFT STA	465230	0964645	SW	1969	1970
USEPA2704A1	POPLAR RIVER DITCH - BADGER LAKE	474100	0960000	SW	1972	1973
USEPA2704B1	MITCHELL LK/BADGER LK CONN	474030	0960130	SW	1972	1973
USEPA2704C1	BADGER CREEK	474200	0960200	SW	1972	1973
USEPA270401	BADGER LAKE	474055	0960028	LK	1972	1972
USEPA2705A1	UNNAMED STREAM DRNG BARTLET LAKE	475300	0941700	SW	1972	1973
USEPA270501	BARTLETT LAKE	475245	0941600	LK	1972	1972
USEPA2711A1	BLACKDUCK RIVER	474530	0943600	SW	1972	1973
USEPA2711B1	COBURN CREEK	474300	0943530	SW	1972	1973
USEPA2711C1	CRANDALL/BLACKDUCK LAKES COMM	474300	0943530	SW	1972	1973
USEPA271101	BLACKDUCK LAKE	474420	0943745	LK	1972	1972
USEPA271102	BLACKDUCK LAKE	474330	0943600	LK	1972	1972
USEPA271701	CLITHERAL LAKE	461542	0953851	LK	1972	1972
USEPA271702	CLITHERAL LAKE	461455	0954118	LK	1972	1972
USEPA2770A1	PULLMAN LK/NELSON LK CONNECTION	454800	0960830	SW	1972	1973
USEPA2770A2	PULLMAN LK/BIG LK CONNECTION	454800	0960830	SW	1972	1973
USEPA2770B1	UNNAMED OUTLET OF PULLMAN LAKE	454830	0960930	SW	1972	1973
USEPA2785A1	ST CLAIR LAKE/LONG LAKE CONECTN	464830	0955330	SW	1972	1973
USEPA2785B1	ST CLAIR LAKE/PELICAN RIVER CNTS	464800	0955230	SW	1972	1973
USEPA2785C1	STP DRAINAGE DITCH	464830	0955230	SW	1972	1973
USEPA278501	ST CLAIR LAKE	464810	0955300	LK	1972	1972
USEPA278502	ST CLAIR LAKE	464900	0955300	LK	1972	1972
USEPA278751	DETROIT LAKES	464900	0955200	SW	1973	1974
USEPA37001301	SHEYENNE R NORTH OF FARGO	470000	0965330	SW	1969	1970

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USEPA37001402	GRAND FORKS WATER INTAKE	475500	0970415	SW	1969	1970
USEPA37001501	FARGO STP INFLUENT	465515	0964715	SW	1969	1970
USEPA37001602	FARGO STP EFFLUENT	465515	0964715	SW	1969	1970
USEPA370017	SHEYENNE R AT WEST FARGO EFF.	465400	0965430	SW	1969	1970
USEPA370019	SOURIS R NW OF VERENDRYE	480735	1004500	SW	1969	1969
USEPA370020	VELVA, N.D. RAW WASTE OUTFALL	480338	1005524	SW	1969	1969
USEPA37002101	SOURIS R N OF SAWYER	480545	1010255	SW	1969	1969
USEPA37002202	SOURIS R SE OF MINOT	481255	1011426	SW	1969	1969
USEPA37002301	SOURIS R AT MINOT WATER PLANT	481336	1011937	SW	1969	1969
USEPA370024	MINOT SEWAGE LAGOON EFFLUENT	482205	1010955	SW	1969	1969
USEPA370025	SOURIS R E OF FOXHOLM, N.D.	482220	1013020	SW	1969	1969
USEPA37002601	MACKOBEE COULEE N OF FOXHOLM	482840	1013455	SW	1969	1969
USEPA37002702	SOURIS R N OF TOLLEY	484825	1014920	SW	1969	1969
USEPA370028	DES LACS R SE OF KENMARE	483520	1015955	SW	1969	1969
USEPA37002901	DES LACS R W OF KENMARE, N.D.	484035	1020535	SW	1969	1969
USEPA370030	STONY RUN CREEK S OF NORTHGATE	485530	1021530	SW	1969	1969
USEPA370031	DES LACS R E OF NORTHGATE	485930	1021155	SW	1969	1969
USEPA370032	SOURIS R E OF WESTHOPE, N.D.	485430	1005730	SW	1969	1969
USEPA370035	SOURIS R E OF RUSSELL	484030	1004740	SW	1969	1969
USEPA370036	SOURIS R N OF TOWNER	482955	1002555	SW	1969	1969
USEPA370037	TOWNER, N.D. RAW WASTE DISCHARGE	482053	1002451	SW	1969	1969
USEPA370038	SOURIS R SW OF TOWNER	481850	1002805	SW	1969	1969
USEPA370039	SOURIS R NNE OF TOWNER	482428	1002335	SW	1969	1969
USEPA370041	WESTHOPE, N.D. LAGOON EFFLUENT	485447	1005918	SW	1969	1969
USEPA370042	DEEP R SE OF RUSSELL	483815	1004750	SW	1969	1969
USEPA370043	CANADIA SIDE OF US CANADA BORDER	490000	1020000	SW	1969	1969
USEPA370044	SOURIS R S OF US-CAN BORDER	485825	1015630	SW	1969	1969
USEPA370045	SOURIS R NE OF TOLLEY	484807	1014728	SW	1969	1969

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USEPA370046	SOURIS R E OF TOLLEY	484510	1014545	SW	1969	1969
USEPA370047	SOURIS R E OF CARPIO	482615	1013500	SW	1969	1969
USEPA370048	SOURIS R NW OF MINOT	481640	1012410	SW	1969	1969
USEPA370049	SOURIS R N OF VELVA	480345	1005535	SW	1969	1969
USEPA370050	SOURIS R SW OF TOWNER	481930	1002755	SW	1969	1969
USEPA370051	SOURIS R ABOVE TOWNER OUTFALL	482118	1002435	SW	1969	1969
USEPA370053	SOURIS R DNSTM FM TOWNER OUTFALL	482210	1002510	SW	1969	1969
USEPA370054	SOURIS R E OF BANTRY	483000	1002600	SW	1969	1969
USEPA370055	SOURIS R 2 MI N OF UPHAM	483640	1004210	SW	1969	1969
USEPA370056	SOURIS R N OF UPHAM	484910	1005520	SW	1969	1969
USEPA370057	SOURIS R BELOW US-CAN BORDER	485940	1005700	SW	1969	1969
USEPA370059	SOURIS R N OF GREEN	484000	1014205	SW	1969	1969
USEPA370060	SOURIS R W OF GRANO	483625	1013605	SW	1969	1969
USEPA370061	SOURIS R S END OF LAKE DARLING	482940	1013400	SW	1969	1969
USEPA370062	DES LACS R N OF KENMARE	484140	1020655	SW	1969	1969
USEPA370063	DES LACS R S OF KENMARE	483900	1020620	SW	1969	1969
USEPA370064	DES LACS R AT DONNYBROOK	483153	1015235	SW	1969	1969
USEPA370065	DES LACS R NW OF FOXHOLM	482240	1013505	SW	1969	1969
USEPA370066	DES LACS RIVER UPSTM CONF SOURIS	481700	1012550	SW	1969	1969
USEPA3801A1	SHEYENNE RIVER	470155	0980502	SW	1974	1975
USEPA3801A2	SHEYENNE RIVER	472601	0980143	SW	1974	1975
USEPA3801B1	UNNAMED CREEK	470403	0980510	SW	1975	1975
USEPA3801C1	BALD HILL CREEK	471100	0980415	SW	1974	1975
USEPA3801TA	COOPERSTOWN	472530	0980600	SW	1974	1975
USEPA380101	LAKE ASHTABULA	470212	0980444	LK	1974	1974
USEPA380102	LAKE ASHTABULA	470929	0980031	LK	1974	1974
USEPA380103	LAKE ASHTABULA	471248	0975745	LK	1974	1974
USEPA380104	LAKE ASHTABULA	471548	0980039	LK	1974	1974

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USEPA380105	LAKE ASHTABULA	470745	0980215	LK	1974	1974
USEPA380303	BRUSH LAKE	473148	1001330	LK	1974	1974
USEPA380304	BRUSH LAKE	473152	1001335	LK	1974	1974
USEPA3804A1	SOURIS RIVER	482725	1013515	SW	1974	1975
USEPA3804A2	SOURIS RIVER	485924	1015728	SW	1974	1975
USEPA3804B1	MACKOBEE COULEE	482836	1015452	SW	1975	1975
USEPA380401	LAKE DARLING	482732	1013514	LK	1974	1974
USEPA380402	LAKE DARLING	483645	1013702	LK	1974	1974
USEPA380403	LAKE DARLING	483848	1014046	LK	1974	1974
USEPA380501	DEVILS LAKE	480152	0985457	LK	1974	1974
USEPA380502	DEVILS LAKE	480338	0985647	LK	1974	1974
USEPA380503	DEVILS LAKE	480213	0985803	LK	1974	1974
USEPA380504	DEVILS LAKE	480331	0990147	LK	1974	1974
USEPA3808A1	MID BRANCH FOREST RIVER	481330	0975530	SW	1974	1975
USEPA3808A2	MID BRANCH FOREST RIVER	481300	0975925	SW	1975	1975
USEPA3808B1	UNNAMED CREEK	481415	0975905	SW	1975	1975
USEPA380801	MATEJCEK LAKE	481328	0975700	LK	1974	1974
USEPA380802	MATEJCEK LAKE	483121	0975530	LK	1974	1974
USEPA38081C	S BRANCH FOREST RIVER	481050	0975435	SW	1975	1975
USEPA380901	LAKE METIGOSHE	485947	1002125	LK	1974	1974
USEPA380902	LAKE METIGOSHE	485835	1002113	LK	1974	1974
USEPA380903	LAKE METIGOSHE	485747	1002102	LK	1974	1974
USEPA381101	PELICAN LAKE	485641	1001604	LK	1974	1974
USEPA3812H1	WHITE EARTH RIVER	484645	1021245	SW	1974	1975
USEPA3812J1	LITTLE KNIFE RIVER	483230	1020445	SW	1974	1975
USEPA3815A1	MID BRANCH FOREST RIVER	481155	0980305	SW	1974	1975
USEPA3815A2	MID BRANCH FOREST RIVER	481415	0980635	SW	1975	1975
USEPA381501	WHITMAN LAKE	481106	0980430	LK	1974	1974

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USEPA381502	WHITMAN LAKE	481106	0980430	LK	1974	1974
USFS090449	JAP LAKE 46 MI NE OF ELY MINN.	480603	0953510	LK	1974	1974
USGS05030140	OTTER TAIL RIVER NORTHWEST OF LUCE, MN	464020	0953956	SW	1970	1973
USGS05030260	TOAD RIVER ABOVE BIG PINE LAKE, NEAR PERHAM,	463905	0953110	SW	1970	1973
USGS05030300	OTTER TAIL RIVER NEAR RICHVILLE, MN	463048	0953104	SW	1970	1973
USGS05030401	OTTER TAIL R AT OTTER TAIL LA OU, NR AMOR, M	462134	0954400	SW	1970	1973
USGS05033800	CAMPBELL CREEK NEAR DETROIT LAKES, MINN.	465329	0955157	SW	1969	1972
USGS05033810	FLOYD LAKE OUTLET NEAR DETROIT LAKES, MINN.	465242	0955023	SW	1969	1972
USGS05033900	PELICAN RIVER AT DETROIT LAKES, MN	464837	0954942	SW	1968	1972
USGS05033940	PELICAN RIVER TRIBUTARY NEAR DETROIT LAKES,	464652	0954801	SW	1968	1970
USGS05033960	SUCKER CREEK NEAR DETROIT LAKES, MINN.	464625	0954823	SW	1968	1970
USGS05035200	W BR CO DITCH NO.14 NR DETROIT LAKES, MINN.	464848	0955220	SW	1973	1973
USGS05035500	ST. CLAIR LAKE OUTLET NEAR DETROIT LAKES, MN	464803	0955237	SW	1971	1973
USGS05035600	PELICAN R AT MUSKRAT LK OUT NR DETROIT LAKES	464655	0955257	SW	1972	1972
USGS05037100	PELICAN R AT SALLIE LK OTLT NR DETROIT LAKES	464527	0955357	SW	1972	1972
USGS05039100	PELICAN R AT LK MELISSA OUT NR DETROIT LAKES	464350	0955340	SW	1968	1972
USGS05046000	OTTER TAIL RIVER BL ORWELL D NR FERGUS FALLS	461235	0961105	SW	1960	1966
USGS05046900	MUSTINKA RIVER NEAR ELBOW LAKE, MN	455419	0960223	SW	1965	1965
USGS05050000	BOIS DE SIOUX RIVER NEAR WHITE ROCK, SD	455145	0963425	SW	1963	1966
USGS05051000	RABBIT RIVER AT CAMPBELL, MN	460540	0962440	SW	1965	1965
USGS05051520	WHISKY CREEK NEAR KENT, MN			SW	1976	1976
USGS05055520	BIG COULEE NR FT. TOTTEN, N. DAK.	475257	0985802	SW	1962	1975
USGS05056217	EDMORE COULEE AB SWEETWATER LK NR WEBSTER, N	481512	0984230	SW	1978	1979
USGS05056238	STARKWEATHER COULEE NR GARSKE, ND	482032	0984021	SW	1978	1979
USGS05056535	EAST BAY DEVILS LAKE NEAR DEVILS LAKE, N. DA	480138	0985243	LK	1960	1972
USGS05056563	BLACK TIGER BAY NR TOKIO, N. DAK.	485815	0984922	LK	1959	1972
USGS05057500	LAKE ASHTABULA AT BALDHILL DAM, N. DAK.	470200	0980500	LK	1960	1971
USGS05063400	SOUTH BRANCH WILD RICE RIVER NR FELTON, MN	470700	0962500	SW	1966	1966

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USGS05063500	SOUTH BRANCH WILD RICE RIVER NEAR BORUP, MN	471140	0963440	SW	1966	1966
USGS05063800	STATE DITCH NO. 45 NEAR FELTON, MN	470200	0963000	SW	1966	1966
USGS05067500	MARSH RIVER NEAR SHELLY, MN	472445	0964550	SW	1975	1975
USGS05067900	SAND HILL RIVER AT FERTILE, MN	473150	0961550	SW	1966	1966
USGS05069000	SAND HILL RIVER AT CLIMAX, MN	473643	0964852	SW	1966	1975
USGS05074000	LOWER RED LAKE NR RED LAKE MN	475727	0951634	LK	1962	1965
USGS05074500	RED LAKE RIVER NEAR RED LAKE, MN	475727	0951635	SW	1964	1966
USGS05076000	THIEF RIVER NEAR THIEF RIVER FALLS, MN	481108	0961011	SW	1963	1975
USGS05077700	RUFFY BROOK NEAR GONVICK, MN	474450	0952445	SW	1966	1966
USGS05078230	LOST RIVER AT OKLEE, MN	475035	0955130	SW	1966	1966
USGS05078500	CLEARWATER RIVER AT RED LAKE FALLS, MN	475315	0961625	SW	1963	1966
USGS05082200	RED LAKE RIVER AT EAST GRAND FORKS, MINN.	475524	0970059	SW	1969	1972
USGS05083000	TURTLE RIVER AT MANVEL, N. DAK.	480443	0971103	SW	1970	1972
USGS05088500	HOMME LAKE NEAR PARK RIVER, N. DAK.	482420	0974710	LK	1959	1971
USGS05089200	NORTH BRANCH PARK RIVER AT GARDAR, ND	483530	0975250	SW	1978	1979
USGS05094000	SOUTH BRANCH TWO RIVERS AT LAKE BRONSON, MN	484350	0963950	SW	1954	1968
USGS05107500	ROSEAU RIVER AT ROSS, MN	485437	0955518	SW	1962	1968
USGS05113750	E BR SHORT CR RES NEAR COLUMBUS, N. DAK.	485926	1024707	LK	1970	1971
USGS05118015	SOURIS RIVER BELOW MINOT, N. DAK.	481302	1011408	SW	1970	1970
USGS05123000	LAKE METIGOSHE NEAR BOTTINEAU, N. DAK.	485905	1002052	LK	1970	1974
USGS465914102530200	GREEN RIVER AT NEW HRADEC N D	485914	1025302	SW	1975	1975
USGS470601097250501	ERIE DAM NR ERIE, ND	470601	0972505	SW	1975	1975
USGS471121097132001	HUNTER DAM NR HUNTER, ND	471121	0971320	SW	1975	1975
USGS474540099554301	HARVEY RES. AT HARVEY, ND	474540	0995543	LK	1974	1974
USGS475756100564101	SPRING CREEK NEAR VELVA ND	475756	1005641	SW	1975	1975
USGS475847101022901	BONNES COULEE TRIB 2 NEAR VELVA ND	475847	1010229	SW	1975	1975
USGS480049099504601	BUFFALO LAKE NR ESMOND N.D.	480049	0995046	LK	1974	1974
USGS480357098560202	153-064-18CDC2	480357	0985602	SW	1974	1974

Table 3b--Surface-water quality sites in the U.S. portion of the Souris-Red Rivers drainage basin, inactive sites--continued

NAWDEX SITE IDENTIFIER	STATION NAME AND LOCATION	LATITUDE	LONGITUDE	TYPE OF SITE	QW BEGIN YEAR	QW END YEAR
USGS481352101200701	155-83-22CB	481352	1012007	SW	1971	1971
USGS482421097481601	HOMME DAM RESERVOIR NR PARK RIVER, ND	482421	0974816	SW	1975	1975
USGS482708097320700	MIDDLE BRANCH PARK RIVER NR NASH, ND	482708	0973207	SW	1978	1979
USGS483209097372400	NORTH BRANCH PARK RIVER BL HOOPLE, ND	483209	0973724	SW	1978	1980
USGS483209097383300	NORTH BRANCH PARK RIVER AB HOOPLE, ND	483209	0973833	SW	1978	1980
USGS483216097380300	NORTH BRANCH PARK RIVER AT HOOPLE, ND	483216	0973803	SW	1978	1980
USGS483236097351600	CART CREEK NR HOOPLE, ND	483236	0973516	SW	1978	1980
USGS483606097412800	CART CREEK AB CRYSTAL, ND	483606	0974128	SW	1978	1980
USGS483639097423600	CART CREEK AB CRYSTAL, ND	483639	0974236	SW	1978	1979
USGS484132102172001	ANKENBAUER COULEE TRIP NR NIOBE, ND	484132	1021720	SW	1976	1976
USGS484132102183801	STONY CR TRIB NR NIOBE, ND	484132	1021838	SW	1976	1976
USGS485159102570401	162-095-12CDD	485159	1025704	SW	1975	1975
USGS485212102570401	162-095-12CAD	485212	1025704	SW	1975	1975
USGS485219102570401	162-095-12CAA	485219	1025704	SW	1975	1975
USGS485225102563501	162-095-12ADC1	485225	1025635	SW	1975	1975
USGS485225102563502	162-095-12ADC2	485225	1025635	SW	1975	1975
USGS485225102564501	162-095-12ACD	485225	1025645	SW	1975	1975
USGS485225102565401	162-095-12ACC	485225	1025654	SW	1975	1975
USGS485225102570401	162-095-12BDD	485225	1025704	SW	1975	1975
USGS485225102571401	162-095-12BDC	485225	1025714	SW	1975	1975
USGS485250099252501	AMOURDALE DAM NR AMOURDALE, ND	485250	0992525	SW	1975	1975
USGS485340102483300	WEST BRANCH SHORT CREEK NEAR COLUMBUS N D	485340	1024833	SW	1975	1975
USGS485340102541700	WEST BRANCH SHORT CREEK NEAR LARSON N D	485340	1025417	SW	1975	1975
USGS485344102551401	W BRANCH SHORT CREEK TRIB 2 NEAR NOONAN ND	485344	1025514	SW	1975	1975
USGS485345102591001	LONG CREEK TRIB NEAR NOONAN ND	485345	1025910	SW	1975	1975
USGS485515102163301	NORTH GATE RES. NR NORTH GATE, ND	485515	1021633	LK	1974	1974
USGS485540098192801	MOUNT CARMEL DAM, ND	485540	0981928	SW	1975	1975
USGS489008102163701	BIG SPRING COULEE NR NIOBE ND	484008	1021637	SW	1976	1976

Ground-Water Data Sites

Ground-water data are available for wells listed in the tables 4-6 for Minnesota, North Dakota, and South Dakota, which were compiled from information supplied by Survey District offices. Tables 4a and 4b list active and inactive observation wells for ground water level monitoring, and table 4c shows observation wells sampled for water-quality analysis in Minnesota. Tables 5a and 5b list active and inactive observation wells and springs in North Dakota respectively. Table 6 lists active observation wells in South Dakota. The local number in the tables is an expression containing township, range, and section in a manner commonly used in the west. The system is illustrated in figure 4. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principle meridian, and the third numeral denotes the section in which the well is located. The letters, a, b, c, and d designate, respectively, the northeast, northwest, southwest, and southeast quarter sections, quarter-quarter sections, and quarter-quarter-quarter sections (10-acre tracts).

The location of a number of wells that are currently measured for water level is indicated on figure 5. Water levels for wells in the U.S. part of the Souris-Red Rivers basin are available from the District offices or in the annual data reports.

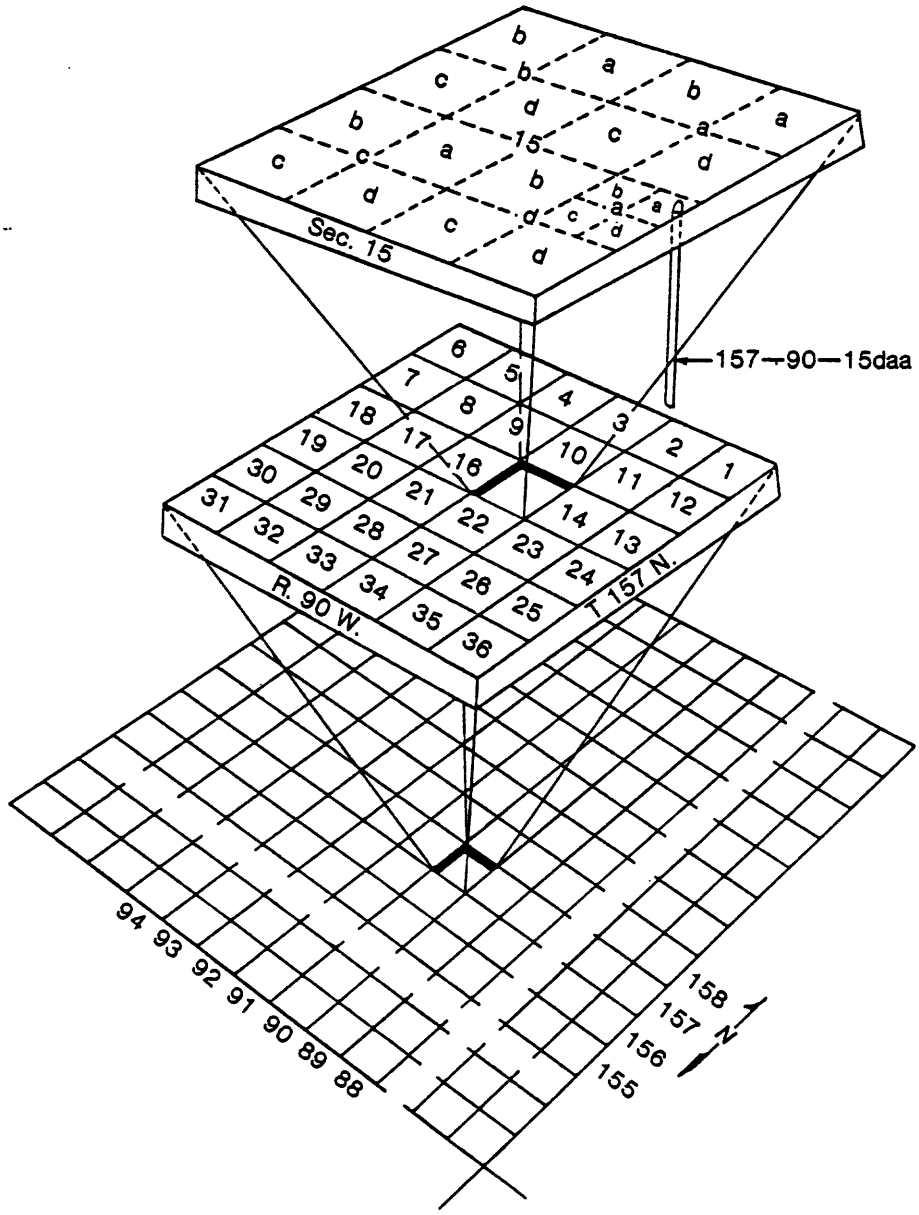

Figure 4. System of numbering wells

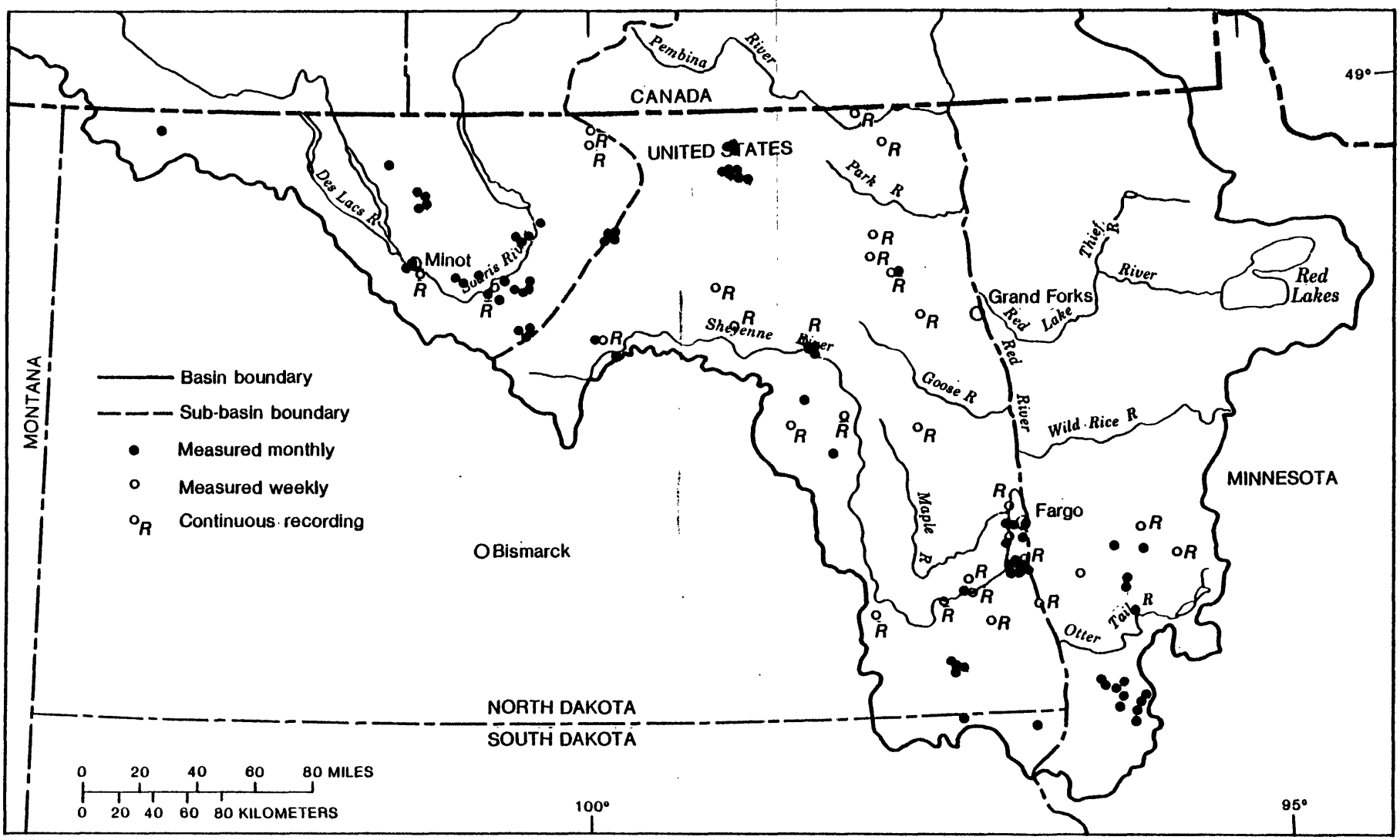

Figure 5. Location of U.S. Geological Survey observation wells in the United States part of the Souris-Red Rivers drainage basin--1980

Table 4a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, Minnesota
Active wells

Local number	Latitude	Longitude
	Continuous measurements	
137.39.22acd1	46°39'56"	95°35'26"
138.41.17ada1	46°46'13"	95°52'48"
	Weekly measurements	
137.45.30cdb1	46°38'54"	96°25'07"
	Monthly measurements	
138.42.26cda1	46°44'01"	95°57'13"
138.43.18cda1	46°45'50"	96°09'59"
140.41.26ccd1	46°54'22"	95°49'50"
128.43.21cbb1	45°52'54"	96°05'19"
128.43.28cdc1	45°51'43"	96°05'02"
129.42.09ccc1	45°59'32"	95°58'26"
129.43.34dba1	45°56'30"	96°03'54"
130.44.25bcb1	46°02'44"	96°09'43"
134.43.14adb1	46°25'22"	96°03'19"
136.43.10aaa1	46°36'50"	96°04'28"
136.43.22cda2	46°34'30"	96°05'02"
130.45.15bcc1	46°04'22"	96°19'37"
129.44.04dac1	46°00'39"	96°12'32"
130.44.29acc1	46°02'36"	96°14'05"
130.45.14cbb1	46°04'18"	96°18'17"
129.44.16ccc1	45°58'42"	96°13'22"
	Bimonthly measurements	
139.47.05cdc1	46°52'37"	96°38'39"
139.47.06aaa1	46°53'27"	96°39'08"
139.48.11aba1	46°52'31"	96°41'58"
136.39.23dcc1	46°34'18"	95°33'42"
129.47.25cdc1	45°57'00"	96°31'40"
136.47.23ccc1	46°34'22"	96°34'17"
156.31.36daa1	48°17'11"	94°33'16"
156.31.36daa2	48°17'11"	94°33'16"
156.31.36daa3	48°17'11"	94°33'16"

Table 4a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, Minnesota--continued
Active wells

Local number	Latitude	Longitude
	Quarterly measurements	
159.48.14aad1	48°35'57"	96°48'06"
160.48.27dcd1	48°38'43"	96°49'50"
144.42.20bba1	47°16'53"	96°02'03"
155.47.11aaa3	48°16'04"	96°39'15"
155.47.11cab1	48°15'38"	96°40'02"
156.48.10daa2	48°20'48"	96°48'19"
156.48.15aad2	48°20'08"	96°48'20"
157.48.27baa1	48°23'54"	96°50'10"
154.43.33ada1	48°07'07"	96°10'35"

Table 4b
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, Minnesota
Inactive wells

Local number	Latitude	Longitude
138.40.22baa	46°45'21"	95°43'16"
138.40.35aad	46°43'42"	95°41'24"
139.45.01cdd2	46°52'45"	96°19'10"
139.48.04dcc1	46°52'38"	96°44'39"
147.37.29bed1	47°31'25"	95°24'02"
160.46.05dcc1	48°42'13"	96°36'52"
161.49.13bcd1	48°46'06"	96°56'52"
143.42.25abb	47°10'48"	95°56'28"
144.41.30caa1	47°15'32"	95°54'50"
145.42.03aaa	47°24'44"	95°58'34"
146.42.23ccc1	47°26'31"	95°58'30"
157.43.11bdb	48°26'15"	96°09'35"
144.44.27cbb2	47°15'33"	96°15'28"
145.48.30bac1	47°21'05"	96°49'44"
136.43.27bdd2	46°33'58"	96°05'10"
152.39.28bba1	46°13'27"	95°36'02"
133.39.10ccd1	46°20'24"	95°35'22"
133.39.33cdd1	46°16'57"	95°36'17"
133.40.13cca1	46°19'42"	95°40'24"
133.41.04aaa1	46°16'56"	95°49'58"
134.39.01acd2	46°27'00"	95°32'20"
134.41.08ccc1	46°25'38"	95°52'57"
134.41.15cbc1	46°25'02"	95°50'33"
135.39.11bbb1	46°31'40"	95°34'46"
136.38.29bbb1	46°34'16"	95°30'44"
136.39.14dad2	46°35'24"	95°33'20"
136.39.19abd2	46°35'00"	95°39'54"
150.46.30ccc1	47°46'31"	96°36'26"
151.44.22acd1	47°53'02"	96°16'27"
162.40.24bba1	48°50'50"	95°45'40"

Table 4c
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, Minnesota
Wells where quality of water samples are obtained

Local number	Latitude	Longitude
137.47.34cdd1	46°37'50"	96°35'57"
134.47.16ccc1	46°38'42"	96°35'18"
137.47.08ccc1	46°41'19"	96°39'00"
137.47.06aaa1	46°43'03"	96°39'18"
138.47.29bbb1	46°44'48"	96°39'06"
138.47.05ccc1	46°47'27"	96°39'04"
139.47.17baa1	46°51'44"	96°38'27"
140.47.32cba1	46°53'52"	96°38'51"
140.47.30aaa1	46°55'10"	96°39'09"
140.47.19cdd1	46°55'12"	96°39'46"
140.47.17ccc1	46°56'03"	96°39'07"
140.47.07ddc1	46°56'55"	96°39'18"
135.47.07bdc1	46°31'21"	96°38'55"
135.47.11bbb1	46°31'44"	96°34'16"
136.47.32cbb1	46°33'03"	96°38'05"
136.47.27dca1	46°33'45"	96°34'45"
136.47.22bbb1	46°35'13"	96°35'30"
136.47.20aaa1	46°35'14"	96°35'51"
136.48.14aaa1	46°36'03"	96°40'40"
136.47.10aaa2	46°36'57"	96°34'20"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota
Active wells

Local number	Latitude	Longitude
	Continuous measurements	
134-052-06ccd2	46°26'33"	97°16'34"
151-063-29aac2	47°52'19"	98°44'26"
156-071-04bba	48°22'12"	99°47'58"
137-049-27bbc	46°39'26"	96°51'38"
139-049-06adb	46°53'12"	96°54'33"
152-054-31bbb	47°56'46"	97°37'22"
154-055-17ccc	48°09'08"	97°45'00"
145-061-04dad1	47°24'12"	98°26'12"
146-058-26cbc	47°25'55"	98°01'35"
154-077-18ccc	48°09'13"	100°37'25"
150-059-20aaa	47°48'09"	98°13'30"
161-055-15bcd6	48°46'07"	97°44'55"
163-056-29cdd2	48°54'25"	97°55'05"
151-072-36aaa1	47°51'39"	99°48'48"
153-064-19aab3	48°03'51"	98°55'23"
134-058-24cdc2	46°24'00"	97°55'25"
134-048-20add	46°24'25"	96°44'12"
135-052-10aca2	46°31'25"	97°12'14"
135-052-22dad	46°29'21"	97°11'55"
136-052-22ddd2	46°34'22"	97°11'56"
161-071-03cdd4	48°47'31"	99°50'41"
161-071-16aab1	48°46'32"	99°51'30"
145-054-27cdc	47°20'24"	97°31'52"
155-056-25bcd	48°13'00"	97°47'22"
156-056-22ddd	48°18'41"	97°49'03"
154-082-03cdc3	48°10'58"	101°12'04"
	Monthly Measurements	
138-049-29ccc	46°43'59"	96°54'13"
144-059-20ccc	47°16'12"	98°11'31"
147-061-01ccc	47°34'25"	98°23'29"
151-069-01bbb	47°56'01"	99°26'47"
151-069-03ccc	47°55'15"	99°29'21"
151-069-15aaa	47°54'16"	99°28'14"
159-082-05ccd	48°37'09"	101°17'39"
159-082-27aad	48°34'19"	101°14'04"
159-082-34ddc	48°32'48"	101°14'13"
159-082-35bbb1	48°33'33"	101°13'54"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Monthly measurements	
159-082-35bbb2	48°33'33"	101°13'54"
137-049-06ccd	46°42'14"	96°55'18"
137-049-08ccc	46°41'23"	96°54'11"
137-049-18bbb	46°41'16"	96°55'27"
137-049-20daa	46°39'59"	96°53'04"
137-049-25ccc	46°38'48"	96°49'06"
137-049-30aaa	46°39'33"	96°54'20"
139-049-09ddd3	46°51'47"	96°51'50"
139-049-18bbb	46°51'40"	96°55'30"
139-049-22bbb	46°50'49"	96°51'40"
139-050-23aaa	46°50'48"	96°56'55"
140-049-29ddd	46°54'24"	96°53'04"
140-049-32bbb	46°54'18"	96°54'10"
140-049-36aaa	46°54'19"	96°48'02"
140-055-25aaa	46°55'09"	97°33'29"
162-097-02bbb	48°53'38"	103°14'38"
163-097-26ddd	48°54'38"	103°13'29"
163-097-35bcc	48°54'13"	103°14'38"
154-055-14ccc	48°09'08"	97°41'06"
153-076-05ddd	48°05'44"	100°27'12"
154-077-27cdd	48°07'28"	100°33'04"
154-077-28add	48°07'55"	100°33'42"
154-077-29bbb	48°08'14"	100°36'08"
154-077-29ccc	48°07'28"	100°36'08"
154-077-35bbb2	48°07'22"	100°32'15"
154-078-26bbb	48°08'14"	100°40'00"
154-078-34ddd	48°06'36"	100°40'10"
154-079-16ccc	48°09'13"	100°50'24"
154-079-24ddd	48°08'20"	100°45'21"
154-080-20bbb	48°09'07"	100°59'28"
154-080-23ccc	48°08'21"	100°55'35"
156-076-08aab	48°21'20"	100°27'24"
156-077-03ddd	48°21'27"	100°32'27"
156-077-13ccb1	48°19'48"	100°30'59"
156-077-13ccb2	48°19'48"	100°30'59"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Monthly measurements	
150-060-09ccc	47°49'02"	98°21'15"
150-060-09ddd	47°49'02"	98°19'57"
150-060-15daa	47°48'35"	98°18'42"
151-073-24ccc	47°52'38"	99°57'38"
157-071-14cdc	48°24'55"	99°47'23"
157-071-23cbb	48°24'22"	99°47'43"
157-071-26bba	48°23'56"	99°47'33"
157-071-26bcb	48°23'43"	99°47'43"
157-071-26cbb	48°23'30"	99°47'43"
157-071-26ccc	48°23'11"	99°47'43"
157-071-31cbc1	48°22'32"	99°52'56"
157-071-31cbc2	48°22'32"	99°52'56"
157-071-34daa	48°22'38"	99°47'53"
157-071-35baa	48°23'04"	99°47'13"
157-072-36add3	48°22'46"	99°53'06"
157-072-36add4	48°22'46"	99°53'06"
161-084-24ddd	48°45'00"	101°29'49"
136-052-29bbb	46°34'15"	97°15'28"
160-071-05baa	48°43'04"	99°51'13"
160-071-07aaa	48°42'12"	99°51'53"
160-071-07bbc	48°42'05"	99°53'01"
160-071-16bbb	48°41'19"	99°50'24"
160-071-19ddd	48°39'42"	99°51'53"
160-071-22ddd	48°39'42"	99°47'58"
160-071-24ddd	48°39'41"	99°45'21"
160-071-26aaa	48°39'35"	99°46'39"
160-071-28aaa	48°39'35"	99°49'16"
160-071-29add	48°39'16"	99°50'34"
160-072-02aaa	48°43'04"	99°54'29"
160-072-02cbc	48°42'31"	99°55'37"
160-072-03bbb	48°43'04"	99°56'55"
160-072-03bbc	48°42'58"	99°56'55"
160-072-05add	48°42'45"	99°58'23"
160-072-06bcc	48°42'45"	100°00'49"
160-072-12aab	48°42'12"	99°53'21"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Monthly measurements	
160-072-12add	48°41'52"	99°53'11"
160-072-12dad	48°41'39"	99°53'11"
160-072-12ddd	48°41'26"	99°53'11"
160-072-13ccc	48°40'34"	99°54'19"
160-072-13ddd	48°40'34"	99°53'11"
160-072-24ccb	48°39'48"	99°54'19"
161-071-03bcc2	48°47'57"	99°51'10"
161-071-08bcb	48°47'12"	99°53'47"
161-071-08cbb	48°46'59"	99°53'47"
161-071-08ccb	48°46'46"	99°53'47"
161-071-08dcd	48°46'39"	99°52'58"
161-071-09aad1	48°47'18"	99°51'20"
161-071-09aad2	48°47'18"	99°51'20"
161-071-09add	48°47'05"	99°51'20"
161-071-09ccc	48°46'39"	99°52'25"
161-071-10bbb	48°47'24"	99°51'10"
161-071-15bba	48°46'32"	99°51'00"
161-071-16bcc	48°46'13"	99°52'29"
161-071-16ccd	48°45'47"	99°52'19"
161-071-16cdd	48°45'47"	99°51'59"
161-071-16dcd	48°45'47"	99°51'40"
161-071-28bab	48°44'48"	99°52'09"
161-071-29aab	48°44'48"	99°52'48"
161-071-29dad	48°44'16"	99°52'39"
161-071-32dcc	48°43'11"	99°52'58"
161-071-33cdd	48°43'11"	99°51'59"
161-071-34ddd	48°43'11"	99°50'01"
161-072-01ddd	48°47'31"	99°55'16"
162-071-36cbc2	48°48'38"	99°48'31"
131-053-03aaa	46°11'41"	97°18'10"
131-053-09aaa	46°10'49"	97°19'25"
131-053-09ccc	46°10'03"	97°20'30"
131-053-10ccc	46°10'03"	97°19'15"
131-053-11ccb	46°10'10"	97°18'01"
131-053-11ccc	46°10'03"	97°18'01"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Quarterly measurements	
131-053-17cbb	46°09'30"	97°21'45"
132-053-29ddd	46°12'39"	97°20'39"
132-053-31ddd	46°11'47"	97°21'55"
132-054-25ddd	46°12'39"	97°23'10"
155-081-11ccc	48°15'19"	101°03'20"
155-081-11ccd	48°15'19"	101°03'01"
155-082-19dbd	48°13'48"	101°15'26"
155-083-22cbb3	48°13'55"	101°20'12"
155-083-23bbb3	48°14'21"	101°18'54"
150-071-29aab	47°47'22"	99°46'23"
153-063-30cbc	48°02'28"	98°48'25"
154-067-15bbb	48°09'58"	99°15'48"
154-071-11aad1	48°10'41"	99°44'27"
163-097-15bcc	48°56'49"	103°15'57"
150-054-04ccd	47°49'57"	97°34'35"
148-059-36aab	47°36'00"	98°06'59"
162-056-01ccc2	48°52'39"	97°50'17"
151-074-20aaa	47°53'23"	100°09'21"
144-055-26bbb	47°16'01"	97°37'10"
147-051-22bbb	47°32'28"	97°05'15"
156-056-36ccc1	48°16'57"	97°47'36"
157-055-21dbc	48°24'08"	97°44'32"
157-058-18ddd	48°24'49"	98°09'58"
154-082-24aba	48°09'12"	101°09'03"
153-063-30cbc	48°02'28"	98°48'25"
156-071-04aba1	48°22'12"	99°47'20"
156-071-04aba2	48°22'12"	99°47'20"
156-071-05aaa	48°22'12"	99°48'17"
163-093-20aaa	48°56'11"	102°45'54"
163-097-25ddd	48°54'38"	103°12'10"
163-097-27ccc	48°54'39"	103°15'57"
163-097-34abb	48°54'32"	103°15'17"
151-055-13aaa	47°54'11"	97°37'30"
151-078-21cbb	47°53'00"	100°40'09"
152-075-20ccc	47°57'53"	100°18'15"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local Number	Latitude	Longitude
	Quarterly measurements	
153-076-25aaa1	48°03'00"	100°22'01"
154-078-31baa1	48°07'22"	100°44'42"
154-078-31baa2	48°07'22"	100°44'42"
154-079-14ccc1	48°09'13"	100°47'47"
154-079-14ccc2	48°09'13"	100°47'47"
156-077-22ccc	48°18'48"	100°33'36"
157-075-20bbb1	48°24'49"	100°22'59"
157-075-20bbb2	48°24'49"	100°22'59"
157-078-13ccc	48°24'57"	100°41'14"
157-078-23ddd	48°24'05"	100°41'24"
158-076-14cdc	48°30'09"	100°26'33"
158-079-23dcc	48°29'17"	100°49'42"
150-059-19bcc	47°47'45"	98°16'06"
151-072-33bbb1	47°51'39"	99°53'47"
151-072-33bbb2	47°51'39"	99°53'47"
151-072-36aaa2	47°51'39"	99°48'48"
151-073-28ccc	47°51'47"	100°01'30"
151-074-27bbc	47°52'25"	100°07'55"
157-071-15ddd	48°24'55"	99°47'53"
157-072-25ddd	48°23'12"	99°53'06"
157-072-36aad	48°22'59"	99°53'06"
157-072-36ddd	48°22'20"	99°53'06"
152-062-27aaa	47°57'43"	98°34'12"
153-062-29ccc	48°02'12"	98°39'30"
153-065-09ddd2	48°04'49"	99°00'24"
156-066-31ddd	48°16'57"	99°10'46"
157-061-13dab1	48°25'09"	98°27'05"
133-054-07aaa	46°21'14"	97°30'43"
133-054-19ccc	46°18'44"	97°31'49"
133-054-32aaa	46°17'45"	97°29'28"
133-057-10aab	46°21'15"	97°49'45"
133-057-14dcc	46°19'37"	97°48'49"
133-058-12aaa	46°21'14"	97°54'38"
134-057-18bbb1	46°25'37"	97°54'28"
135-058-04ddd	46°31'49"	97°58'22"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Quarterly measurements	
135-058-35ddd	46°27'27"	97°55'51"
136-054-28ccc2	46°33'33"	97°29'20"
130-050-17ddd	46°03'58"	96°58'14"
133-047-17ccc1	46°19'37"	96°37'49"
133-047-17ccc2	46°19'37"	96°37'49"
133-047-18ada	46°20'09"	96°37'59"
133-047-20baa1	46°19'30"	96°37'21"
133-047-20baa2	46°19'30"	96°37'21"
133-047-20ddd1	46°18'45"	96°36'43"
133-047-20ddd2	46°18'45"	96°36'43"
133-048-02ada	46°21'53"	96°40'29"
133-048-03abb	46°22'07"	96°42'12"
133-048-12baa	46°21'14"	96°39'51"
134-048-32daa	46°22'34"	96°44'12"
136-052-29ddd	46°33'29"	97°14'23"
129-057-08ccc1	45°59'41"	97°51'41"
129-057-08ccc2	45°59'41"	97°51'41"
130-056-01abb	46°06'30"	97°38'35"
131-057-06ddd	46°10'57"	97°51'48"
132-056-26dad	46°12'58"	97°39'15"
146-074-21ccc	47°26'38"	100°06'59"
147-076-22ccc1	47°31'52"	100°21'04"
147-076-22ccc2	47°31'52"	100°21'04"
148-077-13aaa	47°38'42"	100°25'05"
149-076-29bbb	47°42'08"	100°25'56"
150-074-14bbb	47°49'03"	100°06'38"
150-074-14ccc	47°48'17"	100°06'38"
144-055-06bcb2	47°19'14"	97°42'16"
147-055-11abb	47°34'14"	97°37'52"
147-056-26ddd	47°30'53"	97°45'06"
132-058-01ccc2	46°16'14"	97°54'05"
132-058-26aaa1	46°13'31"	97°54'14"
132-058-26aaa2	46°13'31"	97°54'14"
145-051-01ddc	47°23'52"	97°05'44"
155-056-23aaa2	48°14'15"	97°47'36"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local Number	Latitude	Longitude
	Quarterly measurements	
155-056-25add	48°13'01"	97°46'25"
156-056-16ccb	48°19'39"	97°51'32"
153-081-03cbc	48°06'00"	101°04'37"
154-082-04aba	48°11'46"	101°12'58"
155-082-29bcb	48°13'23"	101°15'08"
155-083-01ccc	48°16'14"	101°17'37"
155-083-04aaa	48°17'00"	101°20'22"
160-088-20dcc	48°39'45"	102°04'05"
	Annual Measurements	
151-063-29dcc	47°51'39"	98°44'45"
151-063-35ccc	47°50'47"	98°41'31"
151-064-10aaa	47°55'02"	98°49'25"
151-065-02cdd	47°55'09"	98°56'31"
151-066-32bbb	47°51'32"	99°08'39"
151-071-32abb	47°51'39"	99°46'42"
152-063-10dac	47°59'44"	98°41'59"
152-064-02cbb	48°00'44"	98°49'22"
152-064-07bca	48°00'05"	98°54'20"
152-064-27bbb	47°57'41"	98°50'39"
152-065-07ccc	47°59'33"	99°02'13"
152-066-21aad	47°58'27"	99°06'15"
152-066-24cab	47°58'07"	99°03'11"
152-071-10ccc	47°59'37"	99°44'48"
153-066-01ddd	48°05'41"	99°04'18"
153-066-21aab	48°03'51"	99°08'21"
153-071-17ddd1	48°03'57"	99°48'19"
153-071-20ccc	48°03'05"	99°49'27"
154-067-03ccc	48°10'53"	99°15'48"
154-067-11ddd1	48°10'01"	99°13'22"
154-067-26baa	48°08'12"	99°14'03"
154-068-01aaa	48°11'41"	99°19'52"
154-069-13ccc	48°09'09"	99°28'45"
154-069-15baa	48°09'55"	99°31'10"
154-070-16bbb	48°09'55"	99°40'24"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Annual measurements	
156-071-04dcd	48°21'25"	99°47'20"
156-071-16bba	48°20'25"	99°47'58"
156-071-17cda	48°19'45"	99°48'56"
156-071-20cdc	48°18'45"	99°49'06"
161-083-23ddd	48°45'00"	101°23'16"
163-074-15aba1	48°57'00"	100°13'59"
163-074-15aba2	48°57'00"	100°13'59"
163-075-15aab1	48°57'00"	100°21'42"
163-075-15aab2	48°57'00"	100°21'42"
160-091-13acd1	48°41'06"	102°22'13"
160-091-13acd2	48°41'06"	102°22'13"
162-092-02cbb	48°53'09"	102°35'16"
163-093-17ddd	48°56'18"	102°45'54"
160-064-11ddd	48°41'22"	98°51'44"
160-064-22bab	48°40'23"	98°53'52"
161-058-20aaa	48°45'33"	98°10'03"
161-060-21bbb	48°45'34"	98°25'44"
161-063-29bbb	48°44'44"	98°50'43"
162-063-15ccc	48°50'57"	98°48'06"
163-064-21aad	48°56'00"	98°56'10"
163-097-23ddd	48°55'30"	103°13'29"
163-097-24aaa	48°56'16"	103°12'10"
163-097-25aaa	48°55'24"	103°12'10"
163-100-09aaa	48°58'02"	103°39'46"
148-062-29daa	47°36'27"	98°35'13"
148-063-11ccb	47°38'48"	98°40'10"
146-062-30ccc	47°25'43"	98°37'33"
147-062-10abb	47°34'19"	98°33'06"
149-052-05dcc	47°44'44"	97°19'56"
150-050-28aaa	47°47'16"	97°02'47"
150-051-36aaa	47°46'23"	97°06'39"
153-055-04ccd	48°05'39"	97°43'31"
153-055-05ccc	48°05'39"	97°44'59"
153-055-32aaa	48°02'05"	97°43'51"
153-055-35bbb	48°02'05"	97°41'06"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Annual measurements	
154-055-18ccc	48°09'08"	97°46'18"
152-075-07bbb	48°00'23"	100°19'32"
152-078-16cba	47°59'05"	100°40'00"
153-076-08dcd	48°04'52"	100°27'32"
154-075-04aaa1	48°11'42"	100°18'09"
154-075-04aaa2	48°11'42"	100°18'09"
154-077-17ccc	48°09'13"	100°36'08"
154-078-24ccc	48°08'21"	100°38'43"
156-077-10bbb	48°21'20"	100°33'36"
149-059-02bbb	47°45'32"	98°10'55"
150-060-05bdb	47°37'32"	98°25'09"
150-061-30abb	47°47'12"	98°30'44"
151-060-07bdd	47°54'45"	98°23'13"
152-061-35baa	47°56'50"	98°25'51"
153-058-32dbb	48°01'38"	98°07'41"
159-056-29ccc	48°33'30"	97°54'11"
160-054-31ccc	48°37'50"	97°39'51"
160-056-16aaa4	48°41'14"	97°51'46"
161-055-15bcd1	48°46'07"	97°44'55"
161-056-21aaa	48°45'36"	97°53'04"
162-056-20aaa	48°50'48"	97°54'22"
163-055-21add	48°55'41"	97°45'14"
163-056-11bbb	48°57'46"	97°51'37"
163-056-24aaa4	48°56'02"	97°49'09"
151-072-16ddc	47°53'30"	99°52'49"
151-072-23bbb	47°53'23"	99°51'13"
151-072-34aaa	47°51'39"	99°51'22"
151-073-32ccc	47°50'53"	100°02'46"
151-074-26aaa	47°52'31"	100°05'30"
152-073-36aaa	47°56'53"	99°56'33"
152-074-01baa	48°01'15"	100°04'51"
153-072-03ddd	48°05'42"	99°53'31"
154-073-19ada	48°08'51"	100°05'09"
154-073-19adb	48°08'51"	100°05'19"
154-074-03bcc	48°11'25"	100°10'08"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Annual measurements	
154-074-17ccc	48°09'12"	100°12'49"
154-074-19aaa	48°09'07"	100°12'55"
156-072-09cdc	48°20'33"	99°55'35"
156-073-12ccc	48°20'33"	99°59'49"
157-071-02ccc	48°26'39"	99°47'43"
157-071-03ccd	48°26'40"	99°48'51"
157-071-11ccc	48°25'47"	99°47'43"
157-071-15ccc	48°24'55"	99°49'01"
157-071-19aaa2	48°24'49"	99°51'48"
157-071-21dcc	48°24'03"	99°49'40"
157-071-22abb	48°24'49"	99°48'22"
157-071-32daa	48°22'39"	99°50'29"
157-072-15ccb	48°25'03"	99°56'51"
157-072-25aaa	48°23'58"	99°53'06"
157-072-25dcc	48°23'12"	99°53'35"
158-071-30daa	48°28'43"	99°51'49"
158-072-23ddc	48°29'16"	99°54'35"
158-073-17bbb	48°30'54"	100°07'19"
151-062-03ddd	47°55'13"	98°34'08"
152-062-21dbd	47°58'03"	98°35'49"
154-064-12ccc	48°10'00"	98°49'53"
154-065-21ccc	48°08'17"	99°01'32"
154-066-01ccc	48°10'53"	99°05'26"
154-066-23ddd	48°08'17"	99°05'36"
155-062-18aaa2	48°15'05"	98°39'38"
155-066-09aaa	48°15'59"	99°08'10"
156-062-20bbb	48°19'29"	98°39'26"
157-063-18aaa	48°25'38"	98°49'05"
134-054-01ddd	46°26'33"	97°24'30"
134-054-16add2	46°25'15"	97°28'15"
136-055-09aaa	46°36'53"	97°35'47"
158-081-36bbb	48°28'21"	101°04'45"
158-082-10aad1	48°31'43"	101°14'03"
158-082-10aad2	48°31'43"	101°14'03"
158-082-26ccc	48°28'27"	101°13'53"

Table 5a
Ground-water level observation wells in the
Souris-Red Rivers drainage basin, North Dakota--continued
Active wells

Local number	Latitude	Longitude
	Annual measurements	
158-082-34ccd	48°27'35"	101°15'02"
159-084-06bbb	48°37'55"	101°34'46"
161-086-33abb	48°43'59"	101°50'01"
162-087-22aaa	48°50'58"	101°56'04"
163-084-07ccc	48°57'07"	101°37'33"
129-050-05bbb	46°01'18"	96°59'22"
129-051-01bbb	46°01'16"	97°01'52"
130-050-27bbb2	46°03'00"	96°56'50"
130-052-12bcb	46°05'19"	97°09'18"
133-047-07add	46°20'55"	96°37'59"
163-072-14abb	48°56'59"	99°57'05"
163-073-11ccc1	48°57'07"	100°05'37"
163-073-11ccc2	48°57'07"	100°05'37"
163-073-11ccc3	48°57'07"	100°05'37"
146-056-28bab	47°26'26"	97°48'27"
147-057-02ccc	47°34'23"	97°53'54"
147-051-09baa2	47°34'12"	97°10'02"
147-051-34ddd1	47°29'58"	97°08'08"
147-051-34ddd2	47°29'58"	97°08'08"
148-051-32aaa	47°35'56"	97°10'34"
148-053-18abd3	47°38'25"	97°27'31"
155-052-27cdc1	48°12'37"	97°18'47"
155-052-27cdc2	48°12'37"	97°18'47"
157-051-06aaa	48°27'15"	97°15'21"
153-083-13bbb	48°04'48"	101°17'37"
153-084-07aba2	48°05'39"	101°31'04"
154-082-04aad	48°11'35"	101°12'33"
155-083-09aaa1	48°16'08"	101°20'22"
155-086-24bbb	48°14'23"	101°40'58"
156-083-25bbc1	48°02'57"	101°17'37"
160-087-17ddd	48°40'37"	101°55'48"
161-088-11bbb	48°47'29"	102°03'55"
149-072-03aaa2	47°45'36"	99°51'22"
150-071-04ddd	47°50'05"	99°44'56"

Table 5b
Ground-water level observation wells and springs in the
Souris-Red Rivers drainage basin, North Dakota
Inactive wells

Local number	Latitude	Longitude
151-062-15ccc*	47°53'29"	98°35'14"
151-063-32abd*	47°51'31"	98°44'41"
152-067-31ccc	47°56'07"	99°17'46"
159-081-11bbb*	48°37'01"	101°06'04"
160-090-21ddd1*	48°39'48"	102°17'59"
160-090-21ddd2*	48°39'48"	102°17'59"
160-090-23bba*	48°40'33"	102°16'21"
162-093-17ccc*	48°51'07"	102°47'04"
162-093-30ddd1*	48°49'23"	102°47'14"
162-093-30ddd2*	48°49'23"	102°47'14"
162-094-10aaa1*	48°52'45"	102°51'10"
162-094-10aaa2*	48°52'45"	102°51'10"
162-094-26bbb*	48°50'08"	102°51'00"
137-049-28dda	46°38'54"	96°51'48"
137-052-31bbb	46°42'31"	97°22'34"
137-053-34ccc	46°37'50"	97°21'56"
149-064-17abb*	47°43'47"	98°52'42"
149-065-14aab*	47°43'46"	98°56'14"
150-062-06dda1*	47°50'04"	98°37'56"
150-065-29ccc*	47°46'28"	99°01'03"
156-079-14bbb*	48°20'28"	100°47'56"
156-079-16bbb*	48°20'28"	100°50'32"
157-078-19ccc*	48°24'05"	100°47'46"
157-079-26bbb2*	48°23'57"	100°50'23"
158-079-03aaa*	48°32'40"	100°50'32"
158-079-22aaa1*	48°30'03"	100°50'32"
158-079-24aab*	48°30'03"	100°48'04"
158-080-25ccc2*	48°28'25"	100°56'55"
158-080-29ddd2*	48°28'25"	101°01'00"
159-079-25aad*	48°34'18"	100°47'55"
159-080-34ccc*	48°32'47"	100°59'32"
133-052-13ccc2	46°19'41"	97°10'27"
133-047-17ddd	46°19'37"	96°37'49"
134-051-06ddd	46°26'33"	97°08'11"
134-051-09bbb2	46°26'24"	97°06'41"

*indicates QW sampling

Table 5b
Ground-water level observation wells and springs in the Souris-Red Rivers drainage basin, North Dakota--continued
Inactive wells

Local Number	Latitude	Longitude
134-051-29ccc2	46°23'05"	97°08'01"
134-052-03ddd2	46°26'33"	97°11'55"
135-050-05aaa	46°37'50"	96°59'26"
135-051-06ddd	46°31'45"	97°08'12"
135-051-07ddd2	46°36'52"	97°08'14"
135-051-23aaa	46°29'55"	97°03'11"
135-052-10acal	46°31'25"	97°12'14"
135-052-21ccc	46°29'08"	97°14'15"
136-050-19ccc	46°34'23"	97°01'52"
136-051-07aaa	46°36'52"	97°08'12"
136-051-11bbb2	46°36'52"	97°04'21"
136-051-19ddd2	46°34'22"	97°08'14"
136-051-26bbb	46°34'16"	97°04'21"
136-051-34aaa	46°33'24"	97°04'31"
136-052-03aaa2	46°37'44"	97°11'56"
136-052-06bbb2	46°37'44"	97°16'41"
136-052-20dda	46°34'28"	97°14'23"
136-052-34bba	46°33'23"	97°12'51"
161-071-03cdd1	48°47'31"	99°50'41"
161-071-04ccc	48°47'31"	99°52'29"
161-071-22bbb	48°45'40"	99°51'10"
148-053-07aab	47°39'24"	97°27'21"
Springs		
150-062-21acd*	47°47'47"	98°35'43"
150-063-15bbc*	47°48'51"	98°42'55"

*indicates QW sampling

Table 6
Active ground-water level observation wells in the
Souris-Red Rivers drainage basin, South Dakota

Local Number	Latitude	Longitude
128N53W10bbbb	45°53'29"	97°17'25"
127N49W29bbbc	45°45'35"	96°49'58"

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The following list of references has been assembled using U.S. Geological Survey information sheets entitled "Water Resources Investigations . . ." for the States of Minnesota, North Dakota, and South Dakota. District personnel helped identify reports which describe conditions and areas within the Souris-Red Rivers drainage basin. All the included reports were written by Geological Survey authors with the cooperation of the involved States and other Federal agencies. The reports are listed alphabetically by author and State.

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Appendix

More information on appraisals, studies, streamflow, quality sites, and observation wells and the actual data may be obtained from various sources.

Sources for information on appraisals and studies are:

(1) U.S. Geological Survey
Water Resources Division / Management
Information System (WRD/MIS)
Mail Stop 405, National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092

(2) U.S. Geological Survey
Water Resources Division
702 Post Office Building
St. Paul, Minnesota 55101

(3) U.S. Geological Survey
Water Resources Division
821 E. Interstate Avenue
Bismarck, North Dakota 58501

(4) U.S. Geological Survey
Water Resources Division
Room 317, Federal Building
200 4th Street, Southwest
Huron, South Dakota 57350

(5) U.S. Geological Survey
Water Resources Division
Mail Stop 406, Box 25046
Denver Federal Center
Lakewood, Colorado 80225

Actual data from the streamflow and quality sites and from observation wells can be obtained from the appropriate District office--(2), (3), or (4) above. Reports listed may be studied at the District offices; some may be available for sale.

Additional data in the NAWDEX data base may be obtained from:

U.S. Geological Survey
National Water Data Exchange
421 National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092
Telephone: (703) 860-6031
FTS 928-6031

or from local NAWDEX assistance centers at (2), (3), or (4) above.