Compilation of Water-Resources Data for Montana, Water Year 2007

Compiled by P.B. Ladd

Prepared in cooperation with the State of Montana and other agencies

Open-File Report 2008–1325

U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior
DIRK KEMPTHORNE, Secretary

U.S. Geological Survey
Mark D. Myers, Director

U.S. Geological Survey, Reston, Virginia: 2008

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Suggested citation:
Ladd, P.B., comp., 2008, Compilation of water-resources data for Montana, water year 2007: U.S. Geological Survey Open-File Report 2008–1325, 38 p.

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Multiply	By	To obtain
	Length	
inch (in.)	2.54	centimeter (cm)
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
acre	4,047	square meter (m^2)
acre	0.4047	square hectometer (hm^2)
acre	0.004047	square kilometer (km^2)
square mile (mi^2)	2.590	square kilometer (km^2)
	Volume	
cubic foot (ft^3)	28.32	cubic decimeter (dm^3)
cubic foot (ft^3)	0.02832	cubic meter (m^3)
acre-foot (acre-ft or ac-ft)	1,233	cubic meter (m^3)
acre-foot (acre-ft or ac-ft)	0.001233	cubic hectometer (hm^3)
	Flow rate	
cubic foot per second (ft^3/s or cfs)	0.02832	cubic meter per second (m^3/s)
cubic foot per second per square mile [$(ft^3/s)/mi^2$ or cfsm]	0.01093	cubic meter per second per square kilometer [$(m^3/s)/km^2$]
gallon per minute (gal/min)	0.06309	liter per second (L/s)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)
	Mass	
ton, short (2,000 lb)	0.9072	megagram (Mg)
ton per day (ton/d)	0.9072	metric ton per day
ton per day (ton/d)	0.9072	megagram per day (Mg/d)

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$°F = (1.8 \times °C) + 32$$

Datums used in this report:

Vertical coordinate information is referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29), the North American Vertical Datum of 1988 (NAVD 88), or the Canadian Geodetic Vertical Datum of 1928.

Horizontal coordinate information is referenced to the North American Datum of 1927 (NAD 27) or the North American Datum of 1983 (NAD 83).

Altitude, as used in this report, refers to distance above the vertical datum.

Abbreviated water-quality and discharge units used in this report:

cfs	cubic feet per second
cfsm	cubic feet per second per square mile
µg/g	micrograms per gram
µg/L	micrograms per liter
µg/mL	micrograms per milliliter
µS/cm	microsiemens per centimeter at 25 degrees Celsius
mg/L	milligrams per liter
mm	millimeters
mm Hg	millimeters of mercury
ng/L	nanograms per liter
pCi/L	picocuries per liter

Symbols used in this report:

e	estimated
E	estimated
<	less than

Acronyms used in this report:

ATG	Aquatics Task Group
HUC	hydrologic unit code
NTRU	nephelometric turbidity ratio units
NWISWeb	National Water Information System Web page
PDF	portable document format
SDS	site-data sheet
USGS	U.S. Geological Survey
WDR	Water-Data Report
WSP	Water-Supply Paper
WY	water year

Water-year definition:

Water year is the 12-month period from October 1 through September 30 of the following calendar year. The water year is designated by the calendar year in which it ends. For example, water year 2007 is the period from October 1, 2006, to September 30, 2007.

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Abstract

The U.S. Geological Survey, Montana Water Science Center, in cooperation with other Federal, State, and local agencies, and Tribal governments, collects water-resources data at hundreds of locations in Montana each water year. This report is a compilation of Montana site-data sheets for the 2007 water year, which consist of records of stage, discharge, and water quality of streams and ground water; stage and contents of lakes and reservoirs; water levels in wells; and precipitation data. Site-data sheets for selected stations in Canada and Wyoming also are included in this report. The data for Montana, along with data from various parts of the Nation, are included in "Water Resources Data for the United States, Water Year 2007," which is published as U.S. Geological Survey Water-Data Report WDR–US–2007 and is available at *http://wdr.water.usgs.gov/wy2007/search.jsp*. Additional water year 2007 data collected at crest-stage gages and miscellaneous-measurement stations were collected but were not published. These data are included in the peak-streamflow data provided on the Web at *http://nwis.waterdata.usgs.gov/mt/nwis/peak.*

Introduction

Water is one of Montana's most valued renewable resources. A continuing supply of fresh water is vital to the future health and economic welfare of the people of Montana. Montana's water resources include surface water and ground water from diverse sources such as alpine lakes and swift streams in the high mountain ranges, pothole lakes and sluggish streams in the rolling prairies, and aquifers in bedrock and unconsolidated materials. These water resources are withdrawn for drinking water and used for agriculture and industry and used instream for recreation, wildlife, and hydroelectric power generation (Cannon and Johnson, 2004). Long-term data on water quantity and quality, as well as water use, are important for developing an improved understanding of the water resources of the State.

The U.S. Geological Survey (USGS) has provided water resources data in annual State reports since 1961. The USGS adopted a new national framework for the annual water-data reports (WDR) in 2006 that provides access to data from more than 20,000 active sites across the United States. The site-data sheets (SDSs) provided through this national framework contain water-resources data including surface water, ground water, water quality, climatological, and biological data by water year. This single water-data report for the entire Nation is only available on-line. The data for Montana, along with data from various parts of the Nation, are included in "Water Resources Data for the United States, Water Year 2007," which is published as U.S. Geological Survey Water-Data Report WDR–US–2007 and is available at *http://wdr.water.usgs.gov/wy2007/search.jsp*.

Purpose and Scope

The purpose of this report is to provide a compilation of Montana site-data sheets for water year 2007. The report provides viewing without Internet access (CD-ROM version), allows easier printing of multiple site-data sheets, and is a portable reference (CD-ROM version). The site-data sheets consist of records of discharge, stage, and water quality of streams and ground water; elevation and contents (storage) of lakes and reservoirs; water levels in wells; and precipitation data. Data sheets for selected stations in Canada and Wyoming also are included in this report. Additional data collected during water year 2007 at crest-stage gages and miscellaneous-measurement sites were not published. These data are stored in the files of the USGS Montana Water Science Center in Helena and are available on request or can be retrieved via the Web at *http://nwis.waterdata.usgs.gov/mt/nwis/peak*.

General Hydrologic Setting

Montana, with an area of about 147,200 mi^2, is the fourth largest State in the Nation (fig. 1). The major drainage basins in the State are the Columbia River basin (about 25,140 mi^2), the Hudson Bay basin (about 674 mi^2), the lower Missouri River basin (about 56,540 mi^2), the upper Missouri River basin (about 25,230 mi^2), the Yellowstone River basin (about 35,810 mi^2) and the Little Missouri River basin (about 3,520 mi^2). The Hudson Bay and Missouri River basins drain

about 82 percent of the State and provide about 40 percent of the total annual streamflow (1971–2000 average). The Columbia River basin drains about 18 percent of the State and provides about 60 percent of the total annual streamflow (1971–2000 average; U.S. Geological Survey, 2006).

The western and southwestern parts of the State are in the Northern and Middle Rocky Mountains (Fenneman and Johnson, 1946). The central and eastern parts are in the Great Plains. The Northern and Middle Rocky Mountains are characterized by rugged mountains and intermontane valleys, whereas the Great Plains consists of rolling to dissected plains and small mountain ranges. Altitude in Montana ranges from more than 12,000 ft (above NGVD 29) in the mountains northeast of Yellowstone National Park to about 1,850 ft (above NGVD 29) where the Kootenai River flows from the northwestern part of the State.

Climate and hydrologic conditions differ substantially across the State. Annual precipitation varies considerably throughout the basins, from about 100–120 in. along the Continental Divide in Glacier National Park to about 8–10 in. in parts of south-central Montana and in some of the western intermontane valleys (Cannon and Johnson, 2004). The diverse precipitation patterns in Montana result from the effects of geographic and topographic features on warm, moist air from either the Gulf of Mexico or the Pacific Ocean. In mountainous areas, much of the annual precipitation falls as snow during the winter. Although much of the annual precipitation on the Great Plains also falls as snow during the winter, intense rainstorms during the summer can contribute substantial quantities of precipitation to the annual totals in a short time. In areas east of the mountains, generally one-half of the annual precipitation falls from May through July (U.S. Geological Survey, 2006).

Peak runoff can result from snowmelt, snowmelt mixed with rain, or intense rainfall. In addition, backwater from ice jams commonly creates flooding in many rivers throughout the State. The record flood of April 1952 in northeastern Montana is an example of spring snowmelt flooding. The flood of May 1981 in west-central Montana is an example of flooding caused by snowmelt mixed with rain. The floods of June 1964, June 1975, and May 1978 are examples of flooding predominantly caused by intense rainfall. Flash floods, although restricted in areal extent, are common at times in the north-central and eastern parts of the State. In many areas, peak runoff is stored in reservoirs to decrease flooding. The stored water is used for irrigation (the predominant consumptive use of water statewide), power generation, and recreation (U.S. Geological Survey, 2006).

Surface water throughout the State generally is suitable for most uses except in parts of eastern Montana where, because of large concentrations of dissolved solids and some individual constituents, water-quality standards or recommended guidelines for protecting human health, agricultural irrigation, and freshwater-aquatic life may be exceeded. The ionic composition of surface water is largely influenced by geology and can vary markedly between the western mountains and the eastern plains. In addition, dissolved-solids concentrations can vary substantially between runoff conditions and base flow. In the western mountains, where the rocks generally are older and resistant to weathering, the streamflow characteristically is a calcium bicarbonate type. The dissolved-solids concentrations in mountain streams commonly are less than 100 mg/L and seldom exceed 500 mg/L, even during base flow. In the eastern plains, where sedimentary rocks are less resistant to weathering, streamflow commonly is a sodium sulfate type, with dissolved-solids concentrations ranging from about 100 mg/L during runoff to several thousand milligrams per liter during base flow. In the northeastern part of the State, streamflow typically is a sodium bicarbonate type. Snowmelt and intense rainstorms sometimes produce large quantities of runoff that can dilute concentrations of dissolved solids, modify chemical compositions, and increase concentrations of suspended sediment (U.S. Geological Survey, 2006).

The availability and quality of ground water in Montana are largely controlled by the diverse hydraulic and geochemical properties of the various rocks, sediments, and hydrologic settings in which it occurs. In western Montana, ground water of good quality for most uses is available from alluvium along streams and rivers, from basin fill in intermontane valleys, from glacial deposits, and from fractured consolidated rocks. In eastern Montana, ground water is available from alluvial deposits along larger rivers and streams and from sedimentary rocks. Outside of the alluvial valleys, groundwater availability in sedimentary rock is variable. Quality of ground water in eastern Montana ranges from good quality for most uses to water with large amounts of dissolved solids that is not suitable for irrigation, public-water supply, or domestic uses. Throughout Montana, alluvial deposits along streams generally are the most productive aquifers, and wells completed in alluvium along the major streams may produce several hundred gallons per minute. Alluvium can be readily recharged by precipitation, by streams during periods of high flow, and by applied irrigation water. The particle-size distribution and sorting of glacial deposits largely determines their potential for water development. Where coarse, well-sorted outwash gravels are present, the potential for developing large-yield wells is good, whereas yields from wells completed in poorly sorted glacial till generally are limited to a few gallons per minute. Many fractured consolidated-rock formations are drilled for ground water but, because of the complexity of the geology, fractured rocks might not provide an adequate water supply in all areas. Wells completed in consolidated rocks generally yield only a few gallons per minute. However, several hundred gallons per minute can be obtained from highly fractured or cavernous formations in some areas. The well depth required to reach a given aquifer varies with location (U.S. Geological Survey, 2006).

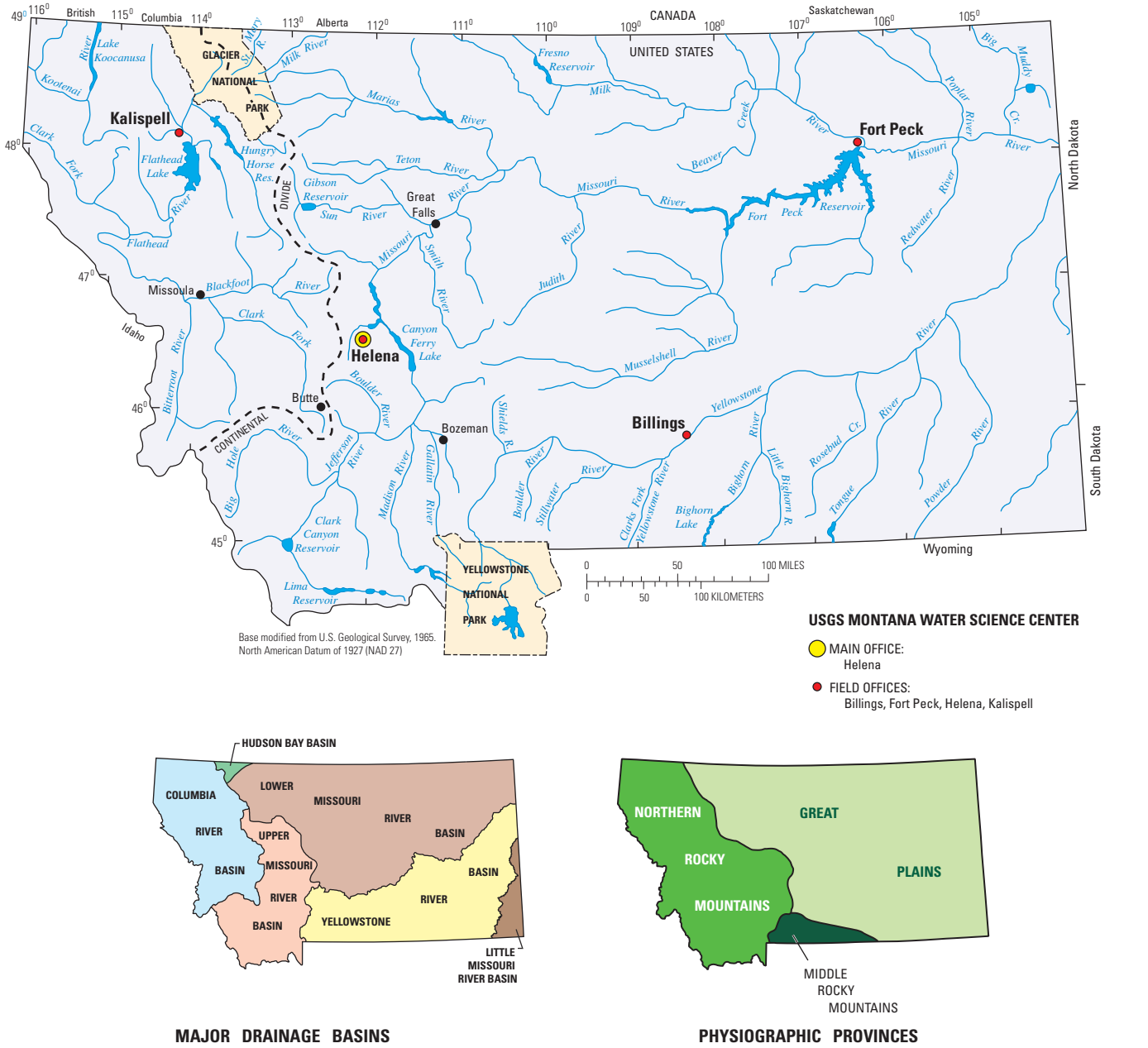

Figure 1. General geographic features of Montana.

Acknowledgments

The site-data sheets compiled in this report are the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey, who collected, compiled, analyzed, and verified the data. The following individuals contributed substantially to the collection, processing, and review of the data:

Fred A. Bailey, Hydrologic Technician
Wayne R. Berkas, Supervisory Hydrologist
Donald A. Bischoff, Hydrologic Technician
Bruce M. Bochy, Hydrologic Technician
Gregory K. Boughton, Hydrologist
Craig L. Bowers, Hydrologic Technician
Tyrel F. Brandt, Hydrologic Technician
Rodney R. Caldwell, Hydrologist
Michael R. Cannon, Hydrologist
Thomas E. Cleasby, Hydrologist
Kent A. Dodge, Hydrologic Technician
DeAnn M. Dutton, Hydrologic Technician
James R. Finley, Hydrologic Technician
Kari L. Finley, Hydrologic Technician
Terry L. Heinert, Hydrologic Technician
Arthur W. Johnson, Hydrologic Technician
Philip L. Karper, Hydrologic Technician
Stacy M. Kinsey, Hydrologic Technician
John H. Lambing, Hydrologist
Robert G. Legare, Hydrologic Technician
Stephen V. Lynn, Supervisory Hydrologic Technician
Norman A. Midtlyng, Hydrologic Technican
Evonne S. Mitton, Hydrologic Technician
Timothy J. Morgan, Hydrologic Technician
Steven W. Nichols, Hydrologic Technician
Virginia L. Redstone, Hydrologic Technician
Kevin L. Sattler, Hydrologic Technician
Todd C. Schmitt, Hydrologic Technician
Ronald R. Shields, Scientist Emeritus
Andrew R. Skerda, Hydrologic Technician
William G. Stotts, Hydrologic Technician
Wayne A. Tice, Hydrologic Technician
Greg R. Trunkle, Hydrologic Technician
Melvin K. White, Hydrologic Technician
Aroscott Whiteman, Hydrologic Technician
Peter R. Wright, Hydrologist

Water-Resources Data for Montana

The USGS operates surface-water, ground-water, water-quality, and climatological stations throughout Montana. Stations may be added or removed from year to year as objectives are achieved or modified, or funding levels change. Some stations are operated for only a few years and commonly are part of a short-term investigation. Other stations have been in operation for many years and provide a basis for description of long-term hydrologic conditions or trends that represent a wide range of hydrologic or land-use variability. Long-term stations typically are in locations that represent an important water resource in the area and require data on an ongoing basis for various management concerns.

This report contains water-discharge records for 238 stations and elevation and (or) contents (storage) records for 39 reservoirs or lakes for water year 2007. In water year 2007, Montana had 234 stations with satellite telemetry equipment. This equipment provides provisional real-time data on the Web. Daily, monthly, and annual streamflow statistics also are available as well as annual peak-streamflow data. These data can be viewed at *http://waterdata.usgs.gov/mt/nwis/sw*. In addition, flood-frequency and basin-characteristics information for selected sites in Montana is available at *http://mt.water.usgs.gov/freq*.

Water-year 2007 data from several ongoing water-quality studies in Montana are published in this report. Water-quality records for 107 surface-water stations and 49 ground-water wells are provided. Daily water-quality data included are water temperature for 34 stations, specific conductance for 15 stations, daily suspended sediment for 5 stations, and turbidity for 4 stations.

One long-term water-quality study was initiated in 1985 in response to high trace-element concentrations in the upper Clark Fork basin. In 1993, this study became a long-term monitoring program that was implemented in cooperation with the U.S. Environmental Protection Agency at an expanded

network of sites in the basin. In water year 2006, supplemental sampling was initiated at sites in the lower Clark Fork basin from near Milltown Reservoir downstream to the confluence with the Flathead River to obtain additional water-quality information related to the removal of Milltown Dam. In water year 2007, this supplemental sampling was continued in addition to the long-term monitoring. Current information about this study can be viewed at *http://mt.water.usgs.gov/projects/clarkfork/*.

Coal-bed methane development, which was in the initial stages of exploration and production in the Tongue River watershed of Montana and Wyoming, prompted a sampling program in 2004. Twelve sites were sampled in water year 2007 as part of this ongoing study. Current information about the Tongue River monitoring program can be viewed at *http://mt.water.usgs.gov/projects/tongueriver/*. An interagency Aquatics Task Group (ATG) also studying the effects of coal-bed natural gas development requested aquatic ecology samples at several sites in Montana and Wyoming. Biological data for this study collected at 19 stations in Montana in water year 2007 are published in this report. Additional information about this ATG study is available at *http://wy.water.usgs.gov/projects/atg/index.htm*.

Data for uranium and other radioactive elements obtained from a new study in Jefferson County are included in this report. In cooperation with the Jefferson Valley Conservation District and Jefferson County, the USGS sampled 40 ground-water wells in Jefferson County in water year 2007 for uranium and other radioactive elements. Most of the wells included in the study provide water for human and (or) domestic-animal consumption. The objectives of the USGS study were to evaluate the geologic setting in which elevated uranium concentrations occur in Jefferson County and to provide information about the occurrence and concentration of uranium and other radioactive elements that had not been studied previously. The presence of uranium in area ground water had previously been documented by required monitoring of public-supply systems, information from private citizens, and a Montana Department of Health and Human Services biomonitoring study.

Water levels were measured in 28 observation wells during water year 2007. Water levels in most of these wells primarily reflect the response of the ground-water system in the area to natural climatic conditions. However, several wells are within the zone of influence of human activities, and water levels in these wells can be affected by pumping or infiltration of applied irrigation water. Water levels commonly fluctuate throughout the year and from year to year as a result of changes in climatic conditions or human activities. Eighteen of the observation wells are equipped with continuous water-level recorders and have varying lengths of record, and 10 wells have periodic water-level data.

The Montana Water Science Center helps support two stations that are part of the National Atmospheric Deposition Program/National Trends Network. This program is a network of 250 monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. Precipitation data for sites in Clancy and Havre are published in this report. Additional information, as well as data from the 250 individual sites, may be accessed from *http://bqs.usgs.gov/acidrain/*.

Organization of Water-Resources Data

The SDSs included in this report for surface water and ground water have been organized into Appendixes 1–4 according to the major river drainage basins in Montana: Hudson Bay (SDSs show Saskatchewan basin), Upper Missouri River, Lower Missouri River, Yellowstone River, and the Pend Oreille subbasin of the Columbia River (SDSs show Pend Oreille basin). The stations are listed in downstream order by geographic location. Appendix 5 lists stations, by county, in Montana's ground-water monitoring network. Appendix 6 lists stations that are part of the National Atmospheric Deposition Program and have precipitation data.

For ease of viewing and printing, the SDSs for the stations in each of the major river drainage basins are provided in separate files (portable document format or PDF files), which are linked in Appendixes 1–6. Provided in each appendix is a table that lists the stations in that basin(s). The table can be used (and printed) as a table of contents for the basin(s) and includes the station name, station number, and page number in the PDF file (page number added to upper right or left side of page). The appendix link allows viewing/printing of all the stations listed for that basin. Each station also has an individual link in the table for single viewing/printing. The letter after the station name designates the type of data collected at the site: b, biological; c, chemical; d, discharge; e, elevations or contents; s, sediment; t, daily water temperature; u, daily specific conductance; v, daily turbidity; and x, daily suspended sediment. Each SDS also has a Web link to the USGS National Water Information System Web page (NWISWeb), which is accessed by clicking on the station name on the first page of the SDS. This Web site (*http://waterdata.usgs.gov/nwis*) serves real-time and historical data as well as many other types of water data.

Active and Discontinued Stations and Index of Stations for the 2007 Water Year

Appendix 7 provides a link to a table of the active (water year 2007) and discontinued stations (having 8-digit station numbers). The table lists the station number, station name, drainage area, and the period of record for discharge or contents (storage) data, for daily or monthly discharge, and annual peaks. The period of record also is listed for daily (sediment, specific conductance, and water temperature) and periodic (biology, chemistry, and sediment) water-quality data. Appendix 8 provides an index of all stations with links for individual viewing.

Documentation, Definition of Terms, and Related Water-Resources Information

Appendix 9 provides documentation about downstream order and station number, numbering system for wells and miscellaneous sites, explanation of stage- and water-discharge records, explanation of precipitation records, explanation of water-quality records and parameter codes, surface-water-quality records, explanation of ground-water-level records, and ground-water-quality data. In addition, policies and procedures for activities related to the collection of surface-water and water-quality data in Montana are documented in Lambing (2006), Dodge and Lambing (2006), and White and others (1998).

Appendix 10 presents a list of specialized technical terms related to streamflow, water-quality and other hydrologic data, as used in this report. Not all terms defined in this list apply to data collected in Montana. Other glossaries that also define water-related terms are accessible at *http://water.usgs.gov/glossaries.html*.

The locations of the stations where data were collected can be viewed using the Annual Water Data Reports Mapper, which is a map interface tool that can be used to view the SDSs. The tool (*http://wdr.water.usgs.gov/adrgmap/index.html*) allows users to locate stations in the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Somoa, and affiliated Pacific Islands. The map also allows users to download data for any station. The map is clickable for Montana (or any other area) for detailed viewing. Data can also be retrieved by site number, state, county, or hydrologic unit code (HUC) at *http://wdr.water.usgs.gov/wy2007/search.jsp*.

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and provides historical daily mean and peak-flow discharge data for most active or discontinued gaging stations through the World Wide Web. These data may be accessed at *http://waterdata.usgs.gov/mt/nwis/nwis*. Water-quality and ground-water data also are available through the Web at *http://waterdata.usgs.gov/mt/nwis/qw* and *http://waterdata.usgs.gov/mt/nwis/gw*, respectively. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from the Montana Water Science Center, Helena, Mont.

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White, M.K., Shields, R.R., Dodge, K.A., 1998, Surface-water quality-assurance plan for the Montana District of the U.S. Geological Survey: U.S. Geological Survey Open-File Report 98–173, 54 p.

Appendixes

Appendix 1. Hudson Bay and Upper Missouri River Basins

The above link is provided for ease of printing/viewing all the stations listed in the table below. Individual links next to the station name also are provided for printing/viewing single stations.

Table 1. Stations 05013900, Grinnell Creek at Grinnell Glacier, near Many Glacier through 06077500, Smith River near Eden.

[Letter after station name designates types of data: c, chemical; d, discharge; e, elevation or contents; s, sediment; and t, daily water temperature]

Station name	Station number	Appendix 1 page number
Grinnell Creek at Grinnell Glacier, near Many Glacier (d)	05013900	1
Swiftcurrent Creek above Swiftcurrent Lake, at Many Glacier (d)	05014300	4
Swiftcurrent Creek at Many Glacier (d)	05014500	7
Lake Sherburne at Sherburne (e)	05015500	10
St. Mary River near Babb (d)	05017500	11
St. Mary Canal at intake, near Babb (d)	05018000	14
St. Mary Canal at St. Mary Crossing, near Babb (d)	05018500	17
St. Mary River at international boundary (d)	05020500	20
Red Rock Creek above Lakes, near Lakeview (d)	06006000	24
Lima Reservoir near Monida (e)	06012000	27
Red Rock River below Lima Reservoir, near Monida (d)	06012500	28
Clark Canyon Reservoir near Grant (e)	06015300	31
Beaverhead River at Barretts (d)	06016000	32
Beaverhead River at Dillon (d)	06017000	36
Beaverhead River near Twin Bridges (d)	06018500	39
Ruby River above reservoir, near Alder (d)	06019500	43
Ruby River below reservoir, near Alder (d)	06020600	46
Big Hole River below Big Lake Creek, at Wisdom (dt)	06024450	49
Big Hole River below Mudd Creek, near Wisdom (d)	06024540	54
Big Hole River near Melrose (dt)	06025500	57
Big Hole River near Glen (d)	06026210	63
Well 01N01W13BDDD01 (c) (Jefferson County uranium study)	455018111401101	66
Well 01N02W21DBAA01 (c) (Jefferson County uranium study)	454922111510901	68
Well 01N03W02BACB01 (c) (Jefferson County uranium study)	455221111563601	70
Well 01N03W03DCCD01 (c) (Jefferson County uranium study)	455136111573001	72
Well 01N06W13BADC01 (c) (Jefferson County uranium study)	455028112174601	74
Well 01N06W16ADCA01 (c) (Jefferson County uranium study)	455019112205701	76
Well 02N01W18ACDD01 (c) (Jefferson County uranium study)	455533111460701	78
Well 02N04W09ACDB01 (c) (Jefferson County uranium study)	455630112061801	80
Well 02N04W32ACBA01 (c) (Jefferson County uranium study)	455304112073601	82
Well 02N05W26DBCB01 (c) (Jefferson County uranium study)	455336112112201	84
Well 02N05W29CABA01 (c) (Jefferson County uranium study)	455342112151901	86
Well 03N01W25ABBC01 (c) (Jefferson County uranium study)	455922111400801	88
Well 04N04W17AAAB01 (c) (Jefferson County uranium study)	460631112071401	90
Big Hole River below Hamilton Ditch, near Twin Bridges (dt)	06026420	92
Jefferson River near Twin Bridges (d)	06026500	96
Jefferson River at Parsons Bridge, near Silver Star (dt)	06027600	99
Well 03N02W33BCBA01 (c) (Jefferson County uranium study)	455819111515101	103

Table 1. Stations 05013900, Grinnell Creek at Grinnell Glacier, near Many Glacier through 06077500, Smith River near Eden.—Continued

[Letter after station name designates types of data: c, chemical; d, discharge; e, elevation or contents; s, sediment; and t, daily water temperature]

Station name	Station number	Appendix 1 page number
Well 04N03W24BABA01 (c) (Jefferson County uranium study)	460540111551701	105
Well 04N06W06ABCD01 (c) (Jefferson County uranium study)	460751112232901	107
Well 04N07W25ADCA01 (c) (Jefferson County uranium study)	460425112243401	109
Well 05N03W13CCAD01 (c) (Jefferson County uranium study)	461052111554201	111
Well 05N04W03CCCB01 (c) (Jefferson County uranium study)	461231112055801	113
Well 06N03W14BDAB01 (c) (Jefferson County uranium study)	461629111564101	115
Well 06N05W17CACA01 (c) (Jefferson County uranium study)	461613112152801	117
Well 08N05W30BCBD01, Luttrell Well EPA-5 (c)	462500112170701	119
Well 08N06W25ADAC01, Luttrell Well EPA-4 (c)	462503112172301	122
Well 08N06W25ADAC02, Luttrell Well EPA-4S (c)	462503112172302	125
Well 08N06W36DCAC01, Buckeye Well BTMW-1 (c)	462344112173701	128
Well 08N06W36DCBC02, Buckeye Well BTMW-8 (c)	462342112174801	130
Well 08N06W36DCBD02, Buckeye Well BTMW-3 (c)	462342112174201	132
Basin Creek below Buckeye Mine near logging road, near Basin (cs)	462347112180401	134
Unnamed stream (LAD 1) draining Luttrell repository area, near Rimini (c)	462500112170201	136
Unnamed stream (LAD 2) draining Luttrell repository area, near Rimini (c)	462500112170501	138
Settling pond discharge to Grub Creek, near Basin (c)	462442112174603	140
Unnamed tributary to Grub Creek at mouth, SS No. 6, near Rimini (c)	462442112174602	142
Grub Creek above mouth of unnamed tributary (GC03), near Rimini (c)	462442112174601	144
Jack Creek above Bullion Mine tributary, near Basin (cs)	462155112181501	146
Bullion Mine Adit near Basin (c)	462120112173701	148
Bullion Mine tributary at mouth, near Basin (cs)	462153112181701	150
Jack Creek at mouth, near Basin (cs)	462047112201901	152
Basin Creek at Basin (cs)	06031600	154
Cataract Creek above Uncle Sam Gulch, near Basin (cs)	461905112144201	156
Crystal Mine Adit near Basin (c)	462053112153601	158
Uncle Sam Gulch at mouth, near Basin (cs)	461904112144401	160
Cataract Creek at Basin (cs)	06031960	162
Boulder River below Little Galena Gulch, near Basin (cs)	06032400	164
Boulder River near Boulder (d)	06033000	166
Willow Creek near Harrison (dt)	06035000	169
Jefferson River near Three Forks (d)	06036650	174
Firehole River at Old Faithful, Yellowstone National Park (dt)	06036805	177
Firehole River near West Yellowstone (dt)	06036905	183
Tantalus Creek at Norris Junction, Yellowstone National Park (dt)	06036940	190
Gibbon River at Madison Junction, Yellowstone National Park (dt)	06037100	196
Madison River near West Yellowstone (d)	06037500	202
Hebgen Lake near West Yellowstone (e)	06038000	205
Madison River below Hebgen Lake, near Grayling (d)	06038500	206
Madison River at Kirby Ranch, near Cameron (d)	06038800	209
Ennis Lake near McAllister (e)	06040500	212
Madison River above powerplant, near McAllister (d)	06040800	213

Table 1. Stations 05013900, Grinnell Creek at Grinnell Glacier, near Many Glacier through 06077500, Smith River near Eden.—Continued

[Letter after station name designates types of data: c, chemical; d, discharge; e, elevation or contents; s, sediment; and t, daily water temperature]

Station name	Station number	Appendix 1 page number
Madison River below Ennis Lake, near McAllister (dt)	06041000	216
Gallatin River near Gallatin Gateway (d)	06043500	223
East Gallatin River below Bridger Creek, near Bozeman (d)	06048700	226
Gallatin River at Logan (dt)	06052500	229
Well 05N02W02AAAB01 (c) (Jefferson County uranium study)	461322111482901	235
Well 07N03W08DCCD01 (c) (Jefferson County uranium study)	462155112002001	237
Well 07N04W15CCAC01 (c) (Jefferson County uranium study)	462109112055001	239
Well 08N03W04CDCA01 (c) (Jefferson County uranium study)	462807111592501	241
Well 08N03W09BCAC01 (c) (Jefferson County uranium study)	462745111593501	243
Well 08N03W10CDAC01 (c) (Jefferson County uranium study)	462717111580701	245
Well 08N03W15CBBA01 (c) (Jefferson County uranium study)	462640111582801	247
Well 08N03W15CBDA01 (c) (Jefferson County uranium study)	462634111581501	249
Well 08N03W16ADAC01 (c) (Jefferson County uranium study)	462651111584101	251
Well 08N03W22BDDB01 (c) (Jefferson County uranium study)	462555111580601	253
Well 08N03W30DCCD01 (c) (Jefferson County uranium study)	462432112013301	255
Well 08N03W31ABDA01 (c) (Jefferson County uranium study)	462422112012701	257
Well 08N05W30BBCD01, Luttrell Well EPA-6 (c)	462507112170601	259
Well 08N06W24DDCD01, Luttrell Well EPA-3 (c)	462522112172401	261
Well 08N06W24DDCD02, Luttrell Well EPA-3S (c)	462522112172402	263
Well 08N06W25AABB01, Luttrell Well EPA-1 (c)	462517112173001	266
Well 09N03W02BCCB01 (c) (Jefferson County uranium study)	463402111571801	269
Well 09N03W04DBDC01 (c) (Jefferson County uranium study)	463346111590401	271
Well 09N03W33CCDD01 (c) (Jefferson County uranium study)	462911111593701	273
Well 09N03W33DBBD01 (c) (Jefferson County uranium study)	462931111590501	275
Well 09N03W34BCBD01 (c) (Jefferson County uranium study)	462944111575001	278
Well 09N04W30DCAA01 (c) (Jefferson County uranium study)	463011112090001	280
Missouri River at Toston (dt)	06054500	282
Canyon Ferry Lake near Helena (e)	06058500	289
Tenmile Creek above Monitor Creek, near Rimini (c)	462720112165101	290
Monitor Creek SS 12 near Rimini (c)	462542112173101	292
Monitor Creek at mouth (MCM), near Rimini (c)	462721112164801	294
Ruby Creek RC2A above Scott Reservoir, near Rimini (c)	462544112162001	296
Banner Creek at bridge, 0.5 mile above City diversion, near Rimini (cs)	462657112143501	298
Poison Creek at mouth near Rimini (cs)	462838112143901	300
Tenmile Creek above City diversion, near Rimini (cs)	462853112144101	302
Beaver Creek tributary No. 2 near Rimini (cs)	462758112123001	304
Tenmile Creek below Spring Creek, at Rimini (cs)	462922112145401	306
Moores Spring Creek at mouth, near Rimini (cs)	462932112145801	308
Minnehaha Creek above Justice Mine, near Rimini (cs)	462818112171001	310
Minnehaha Creek above Armstrong Mine, near Rimini (cs)	462844112165401	311
Minnehaha Creek below Armstrong Mine, near Rimini (cs)	462917112165601	312
Beatrice Mine tributary at mouth, near Rimini (cs)	462918112170801	313

Table 1. Stations 05013900, Grinnell Creek at Grinnell Glacier, near Many Glacier through 06077500, Smith River near Eden.—Continued

[Letter after station name designates types of data: c, chemical; d, discharge; e, elevation or contents; s, sediment; and t, daily water temperature]

Station name	Station number	Appendix 1 page number
Minnehaha Creek above City diversion, near Rimini (cs)	463023112153701	314
Prickly Pear Creek near Clancy (d)	06061500	316
Tenmile Creek near Rimini (cds)	06062500	319
Lake Helena near Helena (e)	06064500	323
Hauser Lake near Helena (e)	06065000	324
Missouri River below Hauser Dam, near Helena (d)	06065500	325
Holter Lake near Wolf Creek (e)	06066000	328
Missouri River below Holter Dam, near Wolf Creek (dt)	06066500	329
Little Prickly Pear Creek at Wolf Creek (d)	06071300	336
Dearborn River near Craig (dt)	06073500	339
Smith River below Newlan Creek, near White Sulphur Springs (d)	06076560	344
Smith River near Fort Logan (d)	06076690	347
Smith River below Eagle Creek, near Fort Logan (dt)	06077200	350
Smith River near Eden (d)	06077500	355

Appendix 2. Lower Missouri River Basin

The above appendix link is provided for ease of printing/viewing all the stations listed in the table below. Individual links next to the station name also are provided for printing/viewing single stations.

Table 2. Stations 06078200, Missouri River near Ulm through 06185500, Missouri River near Culbertson.

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; and u, daily specific conductance]

Station name	Station number	Appendix 2 page number
Missouri River near Ulm (d)	06078200	1
Gibson Reservoir near Augusta (e)	06079500	4
Sun River at Simms (dt)	06085800	5
Muddy Creek near Vaughn (cds)	06088300	10
Muddy Creek at Vaughn (cds)	06088500	14
Sun River near Vaughn (cdst)	06089000	19
Missouri River near Great Falls (d)	06090300	27
Lake Creek near Power (d)	06090650	30
Missouri River at Fort Benton (d)	06090800	33
Two Medicine River below South Fork, near Browning (d)	06091700	36
Badger Creek below Four Horns Canal, near Browning (d)	06093200	39
Cut Bank Creek near Browning (d)	06098500	42
Marias River near Shelby (d)	06099500	45
Marias River near Chester (d)	06101500	48
Marias River near Loma (d)	06102050	51
Teton River below South Fork, near Choteau (cds)	06102500	54
Teton River near Dutton (cds)	06108000	59
Teton River at Loma (cdst)	06108800	64
Missouri River at Virgelle (d)	06109500	70
Judith River near mouth, near Winifred (dt)	06114700	73
Missouri River near Landusky (d)	06115200	78
Musselshell River near Martinsdale (d)	06119600	81
Musselshell River at Harlowton (d)	06120500	84
Musselshell River above Mud Creek, near Shawmut (d)	06123030	87
Musselshell River near Lavina (d)	06126050	90
Musselshell River near Roundup (d)	06126500	93
Musselshell River at Musselshell (d)	06127500	96
Musselshell River at Mosby (d)	06130500	99
Nelson Creek near Van Norman (d)	06131200	102
Fort Peck Lake at Fort Peck (e)	06131500	105
Missouri River below Fort Peck Dam (d)	06132000	106
South Fork Milk River near Babb 9d)	06132200	109
Milk River at western crossing of international boundary (d)	06133000	112
North Fork Milk River above St. Mary Canal, near Browning (d)	06133500	115
North Milk River near international boundary (d)	06134000	118
Milk River at Milk River, Alberta (d)	06134500	121
Milk River at eastern crossing of international boundary (d)	06135000	124

Table 2. Stations 06078200, Missouri River near Ulm through 06185500, Missouri River near Culbertson.—Continued

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; and u, daily specific conductance]

Station name	Station number	Appendix 2 page number
Fresno Reservoir near Havre (e)	06136500	127
Big Sandy Creek near Havre (d)	06139500	128
Milk River at Havre (d)	06140500	131
Clear Creek near Chinook (d)	06142400	135
Altawan Reservoir near Govenlock, Saskatchewan (e)	06144260	138
Spangler Ditch near Govenlock, Saskatchewan (d)	06144270	139
Middle Creek near Saskatchewan boundary (d)	06144350	142
Middle Creek below Middle Creek Reservoir, near Govenlock, Sask. (d)	06144395	145
Middle Creek near Govenlock, Saskatchewan (d)	06144440	148
Middle Creek above Lodge Creek, near Govenlock, Saskatchewan (d)	06144450	151
Lodge Creek below McRae Creek, at international boundary (d)	06145500	154
Gaff Ditch near Merryflat, Saskatchewan (d)	06147950	157
Cypress Lake west inflow canal near West Plains, Saskatchewan (d)	06148500	160
Cypress Lake west inflow canal drain near Oxarat, Saskatchewan (d)	06148700	163
Cypress Lake west outflow canal near West Plains, Saskatchewan (d)	06149000	166
Vidora Ditch near Consul, Saskatchewan (d)	06149100	169
Richardson Ditch near Consul, Saskatchewan (d)	06149200	172
McKinnon Ditch near Consul, Saskatchewan (d)	06149300	175
Nashlyn Canal near Consul, Saskatchewan (d)	06149400	178
Battle Creek at international boundary (d)	06149500	181
Battle Creek near Chinook (d)	06151500	184
Milk River near Harlem (d)	06154100	187
Peoples Creek near Hays (d)	06154400	190
Little Peoples Creek near Hays (d)	06154410	193
Peoples Creek below Kuhr Coulee, near Dodson (d)	06154550	196
Milk River near Dodson (d)	06155030	199
Milk River at Cree Crossing, near Saco (d)	06155900	202
Belanger Creek diversion canal near Vidora, Saskatchewan (d)	06156500	205
Cypress Lake near Consul, Saskatchewan (e)	06157000	208
Cypress Lake east outflow canal near Vidora, Saskatchewan (d)	06157500	209
Eastend Canal at Eastend, Saskatchewan (d)	06158500	212
Eastend Reservoir near Eastend, Saskatchewan (e)	06159000	215
Huff Lake pumping canal near Val Marie, Saskatchewan (d)	06161300	216
Huff Lake gravity canal near Val Marie, Saskatchewan (d)	06161500	219
Huff Lake near Val Marie, Saskatchewan (e)	06162000	222
Newton Lake main canal near Val Marie, Saskatchewan (d)	06162500	223
Newton Lake near Val Marie, Saskatchewan (e)	06163000	226
Frenchman River at international boundary (d)	06164000	227
Milk River at Juneberg Bridge, near Saco (d)	06164510	230
Beaver Creek below Guston Coulee, near Saco (d)	06166000	233
Rock Creek below Horse Creek, near international boundary (d)	06169500	236

Table 2. Stations 06078200, Missouri River near Ulm through 06185500, Missouri River near Culbertson.—Continued

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; and u, daily specific conductance]

Station name	Station number	Appendix 2 page number
Milk River at Tampico (d)	06172310	239
Milk River at Nashua (d)	06174500	242
Missouri River near Wolf Point (d)	06177000	245
Poplar River at international boundary (cds)	06178000	249
East Poplar River at international boundary (cdsu)	06178500	254
Poplar River near Poplar (cds)	06181000	262
Big Muddy Creek near Antelope (d)	06183450	267
Big Muddy Creek diversion canal near Medicine Lake (d)	06183700	270
Lake Creek near Dagmar (d)	06183750	273
Cottonwood Creek near Dagmar (d)	06183800	276
Sand Creek near Dagmar (d)	06183850	279
Missouri River near Culbertson (bcds)	06185500	282

Appendix 3. Yellowstone River Basin

The above appendix link is provided for ease of printing/viewing all the stations listed in the table below. Individual links next to the station name also are provided for printing/viewing single stations.

Table 3. Stations 06186500, Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park through 06329500, Yellowstone River near Sidney.

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; u, daily specific conductance; and x, daily suspended sediment]

Station name	Station number	Appendix 3 page number
Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park (d)	06186500	1
Soda Butte Creek at Park boundary, at Silver Gate (dt)	06187915	4
Soda Butte Creek near Lamar Ranger Station, Yellowstone National Park (dt)	06187950	11
Lamar River near Tower Falls Ranger Station, Yellowstone National Park (d)	06188000	18
Boiling River at Mammoth, Yellowstone National Park (dt)	06190540	21
Gardner River near Mammoth, Yellowstone National Park (d)	06191000	28
Yellowstone River at Corwin Springs (d)	06191500	31
Yellowstone River near Livingston (dt)	06192500	34
Shields River near Livingston (d)	06195600	40
Boulder River at Big Timber (d)	06200000	43
Mystic Lake near Roscoe (e)	06204000	46
West Rosebud Creek near Roscoe (d)	06204050	47
West Rosebud Creek at Emerald Lake Campground, near Roscoe (d)	06204070	50
Stillwater River near Absarokee (d)	06205000	53
Clarks Fork Yellowstone River near Belfry (d)	06207500	56
Clarks Fork Yellowstone River at Edgar (d)	06208500	59
Rock Creek near Red Lodge (d)	06209500	62
Red Lodge Creek above Cooney Reservoir, near Boyd (d)	06211000	65
Willow Creek near Boyd (d)	06211500	68
Yellowstone River at Billings (d)	06214500	71
Pryor Creek at Pryor (d)	06216000	74
Bighorn Lake near St. Xavier (e)	06286400	77
Bighorn River near St. Xavier (d)	06287000	78
Little Bighorn River at State line, near Wyola (d)	06289000	82
Pass Creek near Wyola (d)	06290000	85
Lodge Grass Creek above Willow Creek diversion, near Wyola (d)	06291500	88
Little Bighorn River near Hardin (d)	06294000	91
Bighorn River above Tullock Creek, near Bighorn (d)	06294500	94
Yellowstone River at Forsyth (d)	06295000	98
Rosebud Creek at reservation boundary, near Kirby (cdsu)	06295113	101
Rosebud Creek at mouth, near Rosebud (c)	06296003	111
Tongue River at Monarch, Wyoming (bcdsu)	06299980	112
Goose Creek near Acme, Wyoming (bcdsu)	06305700	121
Youngs Creek near reservation boundary, near Decker (bc)	450137106595101	130
Tongue River below Youngs Creek, near Decker (bc)	445957106524701	132
Squirrel Creek near Decker (c)	06306100	134

Table 3. Stations 06186500, Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park through 06329500, Yellowstone River near Sidney.—Continued

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; u, daily specific conductance; and x, daily suspended sediment]

Station name	Station number	Appendix 3 page number
Squirrel Creek above mouth, at Decker (bc)	450047106514201	135
Prairie Dog Creek near Acme, Wyoming (cdsu)	06306250	137
Tongue River at State line, near Decker (bcdsu)	06306300	148
Tongue River Reservoir near Decker (e)	06307000	161
Tongue River at Tongue River Dam, near Decker (cdsu)	06307500	162
Hanging Woman Creek below Horse Creek, near Birney (bc)	06307570	172
Hanging Woman Creek below Hay Gulch, near Birney (bc)	451340106295501	174
Hanging Woman Creek near Birney (bcdsu)	06307600	176
Tongue River at Birney Day School Bridge, near Birney (bcdsu)	06307616	184
Tongue River at Prairie Dog Creek, near Birney (bc)	451607106372801	194
Otter Creek below Taylor Creek, near Otter (c)	451732106085001	196
Otter Creek below Tenmile Creek, near Ashland (bc)	452642106091201	197
Otter Creek at Ashland (cdsu)	06307740	199
Tongue River below Brandenberg Bridge, near Ashland (bcdsu)	06307830	209
Tongue River above T&Y Diversion Dam, near Miles City (cdsu)	06307990	219
Pumpkin Creek near Miles City (bcdsu)	06308400	229
Tongue River at Miles City (cdsu)	06308500	238
Yellowstone River at Miles City (d)	06309000	248
Powder River at Moorhead (bcdsu)	06324500	252
Powder River at Broadus (bc)	06324710	263
Little Powder River at Biddle (bc)	06325000	265
Little Powder River near Broadus (cs)	06325500	267
Powder River below Little Powder River, near Broadus (bc)	453209105201201	271
Powder River near Locate (bcds)	06326500	273
Yellowstone River at Glendive (d)	06327500	281
Yellowstone River near Sidney (cdsx)	06329500	284

Appendix 4. Columbia River Basin

The above link is provided for ease of printing/viewing all the stations listed in the table below. Individual links next to the station name also are provided for printing/viewing single stations.

Table 4. Stations 12301300, Tobacco River near Eureka through 12391400, Clark Fork below Noxon Rapids Dam, near Noxon.

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; u, daily specific conductance; v, daily turbidity; and x, daily suspended sediment]

Station name	Station number	Appendix 4 page number
Tobacco River near Eureka (d)	12301300	1
Lake Koocanusa near Libby (e)	12301920	4
Kootenai River below Libby Dam, near Libby (d)	12301933	6
Fisher River near Libby (d)	12302055	9
Yaak River near Troy (d)	12304500	12
Blacktail Creek at Harrison Avenue, at Butte (cs)	12323230	15
Blacktail Creek at Butte (d)	12323240	17
Silver Bow Creek below Blacktail Creek, at Butte (cds)	12323250	20
Silver Bow Creek at Opportunity (cds)	12323600	25
Mill Creek near Anaconda (cdsv)	12323670	30
Mill Creek at Opportunity (cds)	12323700	38
Willow Creek near Anaconda (cdsv)	12323710	43
Willow Creek at Opportunity (cds)	12323720	51
Silver Bow Creek at Warm Springs (cds)	12323750	56
Warm Springs Creek near Anaconda (cdsv)	12323760	61
Warm Springs Creek at Warm Springs (cdst)	12323770	69
Clark Fork near Galen (cds)	12323800	77
Lost Creek near Anaconda (cdsv)	12323840	82
Lost Creek near Galen (cds)	12323850	90
Clark Fork at Deer Lodge (cdsx)	12324200	95
Little Blackfoot River near Garrison (d)	12324590	102
Clark Fork at Goldcreek (cds)	12324680	105
Flint Creek near Southern Cross (d)	12325500	110
Flint Creek at Maxville (d)	12329500	113
Boulder Creek at Maxville (d)	12330000	116
Flint Creek near Drummond (d)	12331500	119
Clark Fork near Drummond (cds)	12331800	122
Middle Fork Rock Creek near Philipsburg (d)	12332000	127
Rock Creek near Clinton (dt)	12334510	130
Clark Fork at Turah Bridge, near Bonner (cdsx)	12334550	133
Blackfoot River above Nevada Creek, near Helmville (d)	12335100	144
Nevada Creek above reservoir, near Helmville (d)	12335500	147
Nevada Creek at mouth, near Helmville (dt)	12337800	150
North Fork Blackfoot River above Dry Gulch, near Ovando (d)	12338300	158
Blackfoot River near Bonner (cdstx)	12340000	161
Clark Fork above Missoula (cdsx)	12340500	172

Table 4. Stations 12301300, Tobacco River near Eureka through 12391400, Clark Fork below Noxon Rapids Dam, near Noxon. —Continued

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; u, daily specific conductance; v, daily turbidity; and x, daily suspended sediment]

Station name	Station number	Appendix 4 page number
West Fork Bitterroot River near Conner (d)	12342500	183
East Fork Bitterroot River near Conner (cs)	12343400	186
Bitterroot River near Darby (cds)	12344000	189
Bitterroot River at Bell Crossing, near Victor (d)	12350250	194
Bitterroot River near Florence (cds)	12351200	197
Bitterroot River near Missoula (cdst)	12352500	202
Clark Fork below Missoula (d)	12353000	212
Clark Fork at Superior (t)	12353650	215
St. Regis River near St. Regis (d)	12354000	217
Clark Fork at St. Regis (cds)	12354500	220
Clark Fork near Paradise (t)	12354700	226
Flathead River at Flathead, British Columbia (bcds)	12355000	228
North Fork Flathead River near Columbia Falls (bcdst)	12355500	234
Middle Fork Flathead River near West Glacier (bcd)	12358500	242
South Fork Flathead River above Twin Creek, near Hungry Horse (d)	12359800	247
Hungry Horse Reservoir near Hungry Horse (e)	12362000	250
South Fork Flathead River near Columbia Falls (bcdt)	12362500	252
Flathead River at Columbia Falls (cdst)	12363000	260
Stillwater River at Lawrence Park, at Kalispell (bcds)	12365700	268
Whitefish River near mouth, at Kalispell (bcds)	12366080	273
Ashley Creek at Kalispell (bcds)	12367800	278
Flathead River near Bigfork (bcs)	12369000	283
Swan River near Bigfork (d)	12370000	285
Swan River above dam, near Bigfork (cs)	12370100	288
Turtle Lake near Polson (e)	12371000	290
Flathead Lake at Polson (e)	12371550	291
Flathead River near Polson (d)	12372000	293
Little Bitterroot Lake near Marion (e)	12372500	296
Hubbart Reservoir near Niarada (e)	12373500	297
Mill Creek above Bassoo Creek, near Niarada (d)	12374250	298
Upper Dry Fork Reservoir near Lonepine (e)	12375000	301
Dry Fork Reservoir near Lonepine (e)	12375500	302
South Crow Creek near Ronan (d)	12375900	303
Lower Crow Reservoir near Charlo (e)	12376700	306
Mission Creek above reservoir, near St. Ignatius (d)	12377150	307
Mission Reservoir near St. Ignatius (e)	12377200	310
St. Mary's Lake near St. Ignatius (e)	12377300	311
Pablo Reservoir near Polson (e)	12377900	312
McDonald Reservoir near Charlo (e)	12378200	313
Kicking Horse Reservoir near Charlo (e)	12378300	314
Ninepipe Reservoir near Charlo (e)	12378400	315

Table 4. Stations 12301300, Tobacco River near Eureka through 12391400, Clark Fork below Noxon Rapids Dam, near Noxon. —Continued

[Letter after station name designates types of data: b, biological; c, chemical; d, discharge; e, elevation or contents; s, sediment; t, daily water temperature; u, daily specific conductance; v, daily turbidity; and x, daily suspended sediment]

Station name	Station number	Appendix 4 page number
Upper Jocko Lake near Arlee (e)	12380000	316
Lower Jocko Lake near Arlee (e)	12380500	317
South Fork Jocko River near Arlee (d)	12381400	318
Big Knife Creek near Arlee (d)	12383500	321
Valley Creek near Arlee (d)	12387450	324
Jocko River at Dixon (d)	12388200	327
Revais Creek below West Fork, near Dixon (d)	12388400	330
Flathead River at Perma (cdst)	12388700	333
Clark Fork near Plains (d)	12389000	341
Thompson River near Thompson Falls (d)	12389500	344
Thompson Falls Reservoir at Thompson Falls (e)	12390000	347
Prospect Creek at Thompson Falls (d)	12390700	348
Noxon Rapids Reservoir near Noxon (e)	12391300	351
Clark Fork below Noxon Rapids Dam, near Noxon (d)	12391400	352

Appendix 5. Ground-Water Monitoring Network in Montana

The above appendix link is provided for ease of printing/viewing all the stations listed in the table below. Individual links next to the station name also are provided for printing/viewing single stations.

Table 5. Ground-water wells in Montana for which water levels are included in this report.

[Letter after station name designates types of data: cn, continuous water-level data; p, periodic water-level data]

Station name	Station number	Appendix 5 page umber
BEAVERHEAD COUNTY		
Local number 08S09W01CCCC01 (cn)	450937112393701	1
Local number 08S08W31CCAA01 (cn)	450524112380701	4
BIG HORN COUNTY		
Local number 01S25E28CBCAC01 (cn)	454302108392001	7
CASCADE COUNTY		
Local number 20N03E11ABAD01 (cn)	473031111185001	11
Local number 19N04E26CACC02 (cn)	472203111112602	14
GALLATIN COUNTY		
Local number 01N04E25DCDD01 (cn)	454809111095401	17
GARFIELD COUNTY		
Local number 16N44E25BBAC01 (cn)	470709106061401	20
LAKE COUNTY		
Local number 16N19W08ACBD01 (cn)	470946114013201	23
MCCONE COUNTY		
Local number 26N49E13ACAB01 (cn)	480034105195401	26
MINERAL COUNTY		
Local number 18N28W24DCBA01 (p)	471804115060501	29
Local number 18N27W19CBBD01 (p)	471814115052901	30
Local number 18N27W30ABBA01 (p)	471751115045001	31
Local number 17N26W30DAAD01 (p)	471207114555401	32
POWDER RIVER COUNTY		
Local number 04S45E04BDDB01 (cn)	453107106110601	33
POWELL COUNTY		
Local number 15N12W36BCDD01 (cn)	470049113035401	36
RAVALLI COUNTY		
Local number 10N20W13BBA 01 (cn)	463750114033001	39
Local number 06N20W19CCCC02 (cn)	461518114090802	42
ROSEBUD COUNTY		
Local number 06S43E19DDBA02 (cn)	451746106301101	45
SANDERS COUNTY		
Local number 23N24W34ADAA01 (cn)	474251114385201	48
Local number 26N34W03BDAD01 (p)	480248115574901	51
Local number 25N31W30DCCC01 (p)	475316115381901	52
Local number 22N29W32ACDD01 (p)	473717115201501	53
Local number 20N26W22CBBA01 (p)	472837114540201	54
Local number 19N25W07CDDA01 (p)	472448114495201	55

Table 5. Ground-water wells in Montana for which water levels are included in this report.—Continued

[Letter after station name designates types of data: cn, continuous water-level data; p, periodic water-level data]

Station name	Station number	Appendix 5 page umber
Local number 19N25W28BABB01 (p)	472257114473701	56
SHERIDAN COUNTY		
Local number 33N58E17ADDD01 (cn)	483650104084001	57
Local number 32N58E04DBBD02 (cn)	483318104105402	60
TETON COUNTY		
Local number 22N03W15BAAD03 (cn)	474005111583803	63

Appendix 6. National Atmospheric Deposition Program Precipitation Stations in Montana

The above link is provided for ease of printing/viewing the stations listed in the table below.

Table 6. Montana stations for which National Atmospheric Deposition Program precipitation data are included in this report.

Station name	Station number	Appendix 6 page number
McBeath residence near Clancy (MT07)	462905112035401	1
Northern Montana Agricultural Research Center near Havre (MT 98)	482958109475101	3

Appendix 7. Active and Discontinued Stations

Appendix 7 contains table 7, which lists the station number, station name, drainage area, and the period of record for discharge or contents data for daily or monthly discharge and annual peaks. The period of record is also given for daily (specific conductance, water temperature, and sediment) and periodic (chemistry, sediment, and biology) water-quality data.

Table 7. Active and discontinued streamflow-gaging, water-quality, and crest-stage gage stations in Montana for water year 2007.

Appendix 8. Index of Stations in Montana for Water Year 2007

Appendix 9. Documentation

The documentation provides details and explanations regarding site numbering, data reported, and accuracy of data.

Appendix 10. Definition of Terms

Definitions are provided of technical terms related to streamflow, water-quality and other hydrologic data, as used in this report. Not all terms defined in this list apply to data collected in Montana.

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