U.S. Geological Survey



Additional Information

In addition to real-time streamflow and stage data, web site users are provided with a description of each river, pictures, streamflow and stage recommendations for optimal canoeing conditions, historical streamflow or stage data to aid in determining the best time of year to canoe a particular river, links to maps, and links to other agencies or organizations that have complementary online information.

Please note, the further a recreationist is away from a gaging station, the less reliable the data are as an index of canoeing conditions. River systems change rapidly due to precipitation or snowmelt, and summer thunderstorms may cause flash flooding. Paddlers should examine the area as a final safety precaution to determine river conditions.

U.S. Geological Survey (USGS) streamflow data on the Internet are provisional and subject to change.

Reasons to Check Streamflow or Stage Data

The benefits of consulting USGS data in conjunction with a canoeing or kayaking trip include:

- Identification of optimal conditions for a paddling trip.
- Elimination of lost time associated with driving to a river that is too low for a canoe trip.
- Identification of the best times of the year to canoe rivers that have highly seasonal flows.
- Availability of information to help match water conditions to recreationists' abilities or skill levels.
- An opportunity to "learn the river" by examining conditions for a range of streamflows and stages. Recreationists may want to consider keeping notes on the reported conditions to plan future trips to match their interests.





Canoeing North Dakota's Rivers

U.S. Geological Survey

821 E Interstate Ave Bismarck, ND

Phone: 701-250-7400 Fax: 701-250-7492 http://nd.water.usgs.gov/canoeing/ http://nd.water.usgs.gov/canoeing/

The USGS Stream-Gaging Program and Recreation



Among the cottonwood trees and the grasslands bordering North Dakota's

rivers, rustic-looking toolsheds and sleek steel boxes can be seen by careful observers. These seemingly low-tech simple shel-

ters are USGS gaging stations and quietly house sophisticated equipment. On the outside, antennas point toward satellites flying 22,300 miles above the Earth; inside, advanced electronics hum with the continuous collection of data about the river.

The USGS maintains more than 100 gaging stations on rivers and streams throughout North Dakota. The gaging stations provide valuable information for local, State, and Federal agencies and for

recreationists. Data collected are used for many purposes, including flood forecasting and detection of changes in streamflow due to human activity. Recreationists also can check the data to determine the feasibility of making a trip to a favorite river.

Real-time data for the gaging stations in

North Dakota appear on the USGS web site at http://nd.water.usgs.gov. To aid recreationists in planning canoe and kayak trips in North Dakota, the real-time data for selected gaging stations along canoeable rivers were incorporated into a web site along with recommendations on optimal canoeing conditions. The canoeing web

site, http://nd.water.usgs.gov/canoeing/,

SASKATCHEWAN MANITOBA **-**52] Pembina River WILLIAMS MOUNTRAI Williston River Devils Lake Lake 2 Grand Forks MC LEAN River MINNESOTA GRAND FORKS Sakakawea STEELE FOSTER SHERIDAN BURLEIGH Valley City MERCER | OLIVER FARGO Dickinson MORTON BISMARCK Jamestown Mandan MONTANA LA MOURE 2817 83 EMMONS LOGAN HETTINGER DICKEY SOUTH DAKOTA

> presents data on both streamflow and stage, when available. To better understand the meaning of the two types of data, a reference document, River Monitoring Makes for Better Paddling Trips, also is included on the web site. This document details streamflow and stage and their relationship to recreation.

North Dakota's Canoeable Rivers

The following rivers are monitored by the USGS, have been identified as canoeable by the North Dakota Tourism Department or the North Dakota Parks and Recreation Department, and are highlighted in green

> on the adjoining map:

Knife River Little Missouri River Missouri River Pembina River Red River of the North Sheyenne River Souris River Yellowstone River

The USGS monitors many other rivers and streams State that are canoeommended streamflow velocities or stages for

canoeing are not currently available.

