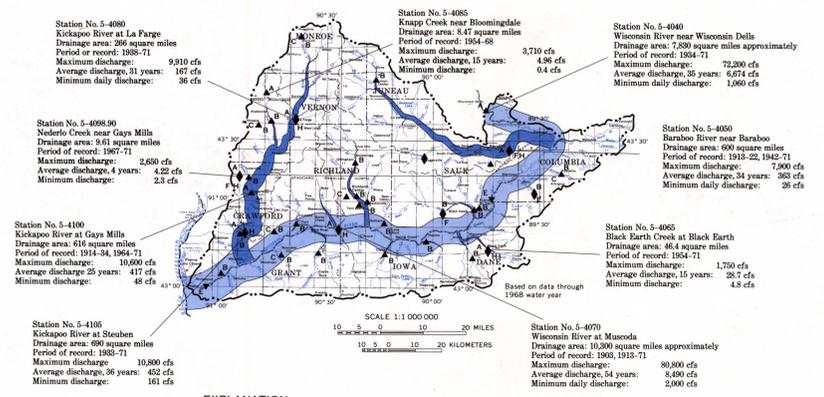
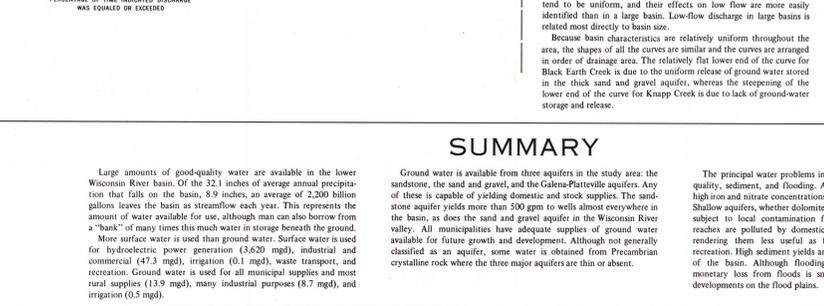
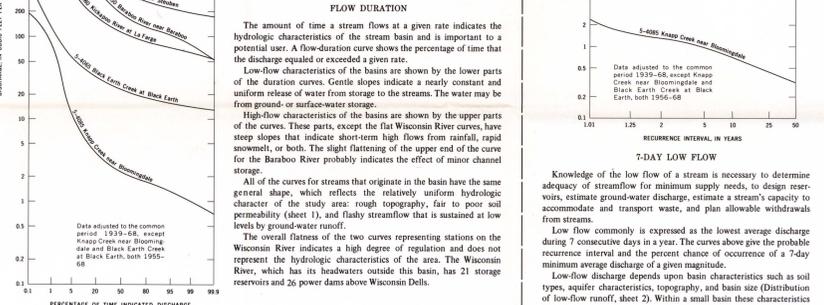


SURFACE WATER



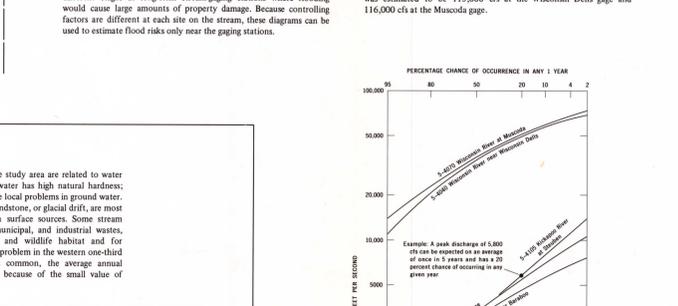
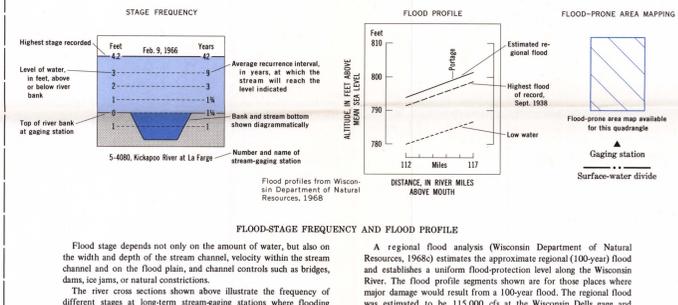
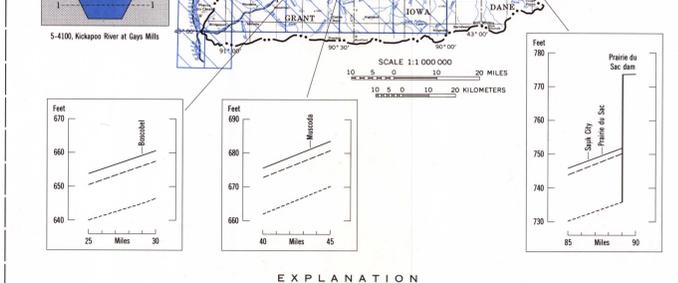
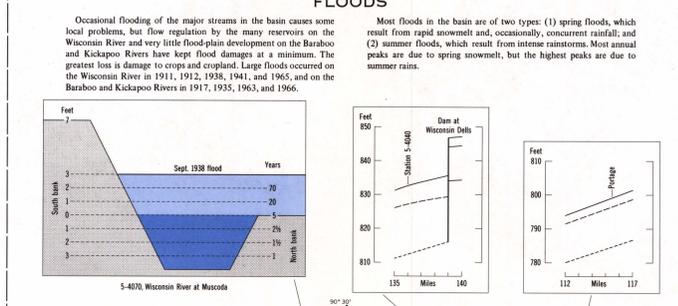
Measurement site symbol	Parameter measured	Frequency of measurement
A	Stream discharge	Continuous
B	Low-flow stream discharge	Intermittent
C	Flood-flow stream discharge	Periodic
D	Lake stage	Periodic
E	Chemical quality	Monthly
F	Chemical quality	Intermittent
G	Sediment	Intermittent
H	Sediment	Daily



Use and criteria	Wisconsin River	Kickapoo River	Baraboo River	Sand and gravel aquifer	Galena-Platteville aquifer	Sandstone aquifer	Precambrian crystalline rocks
Municipal and industrial supplies: Quantity 100,000 gallons per day for a population of about 1,000 in a small industry. Quality: good for domestic use.	Adequate discharge. Fair chemical quality. Treatment necessary for domestic and most industrial uses. Some minor pollution. Highly colored.	Adequate discharge. Good chemical quality. Very little pollution. Treatment necessary for domestic use.	Adequate discharge. Good chemical quality. Treatment necessary for domestic use. Some local pollution. Very hard water.	Large well yields. Good chemical quality. Easily polluted. May be high in nitrate. Limited to flood plain of major streams. Very hard water.	Good chemical quality. Small well yields inadequate for municipal and industrial use. Limited areal extent. Easily polluted. Hard water.	Large well yields. Good chemical quality. Not generally subject to pollution. Underlies most of basin. Deep wells necessary for large supplies. Very hard water.	Good chemical quality. Easily polluted. Hard water.
Rural, domestic, and stock supply: Quantity 5 gallons per minute. Quality: prohibitive cost of treatment of surface water for domestic use.	Adequate discharge. Moderately hard. Limited to riparian land. Some minor pollution. Treatment necessary for domestic use. Fair chemical quality. Highly colored.	Adequate discharge. Good chemical quality. Very little pollution. Limited to riparian land. Very hard water. Treatment necessary for domestic use.	Adequate discharge. Good chemical quality. Limited to riparian land. Some local pollution. Treatment necessary for domestic use.	Adequate well yields. Good chemical quality. Generally shallow water table. Easily polluted. Limited to flood plain of major streams and glacial area. Very hard water.	Adequate well yields. Good chemical quality. Not generally subject to pollution. Underlies most of basin. Very deep water table under ridges. Very hard water.	Adequate well yields. Good chemical quality. Underlies most of basin. Deep wells necessary for large supplies.	Good chemical quality. Adequate well yields. Easily polluted. Hard water.
Irrigation supply: Quantity 1 cubic foot per second or about 450 gallons per minute per 40 to 60 acres.	Adequate discharge. Limited to riparian land.	Adequate discharge. Limited to riparian land.	Adequate discharge. Limited to riparian land.	Adequate well yields. Generally shallow water table. Limited to flood plain of major streams.	Inadequate well yields.	Deep wells necessary for large supplies.	Inadequate well yields.
Recreation: Attractive physical setting. Lack of pollution. Color free. Low sediment load. Adequate public access. Adequate flood flooding.	Suitable for fishing, hunting, boating, and swimming. Public access at many sites. Low sediment load. Some minor pollution. High mercury content in some fish.	Suitable for fishing, hunting, and canoeing. Wisconsin water trail. Public access at many sites. Very little pollution. Some depths very shallow. High sediment loads. Occasional floods.	Suitable for fishing, hunting, and canoeing. Wisconsin water trail. Public access at many sites. Very little pollution. Shallow in places. Some local pollution. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.
Fish and wildlife habitat: Adequate depth. Perennial flow. Less than 2,000 milligrams per liter dissolved solids. Lack of pollution. Low sediment loads. Lack of flooding.	Excellent wildlife habitat in marshes. Large varieties of fish and animals. Low sediment load. Some minor pollution. Mercury in some fish.	Excellent wildlife habitat in marshes. Very little pollution. Trout in headwaters. Shallow in places. High sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.	Good wildlife habitat. Trout in headwaters. Some local pollution. Depth variable. Shallow in places. Moderate sediment loads. Occasional floods.

Based on data through 1968 water year. Scale 1:1,000,000. Operated by Wisconsin Department of Natural Resources.

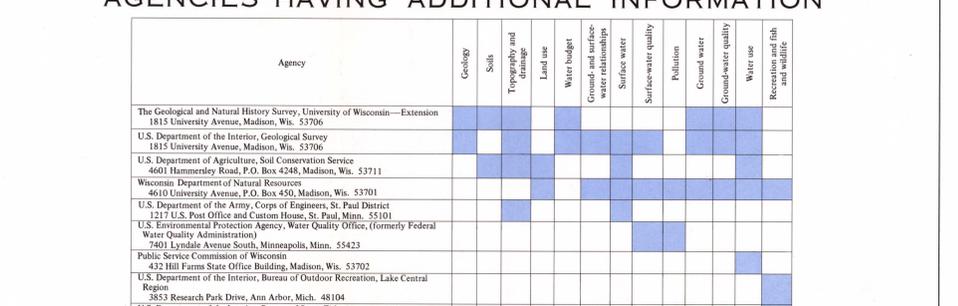
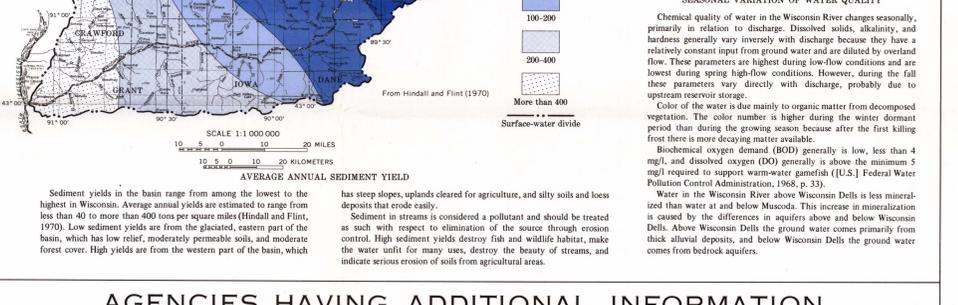
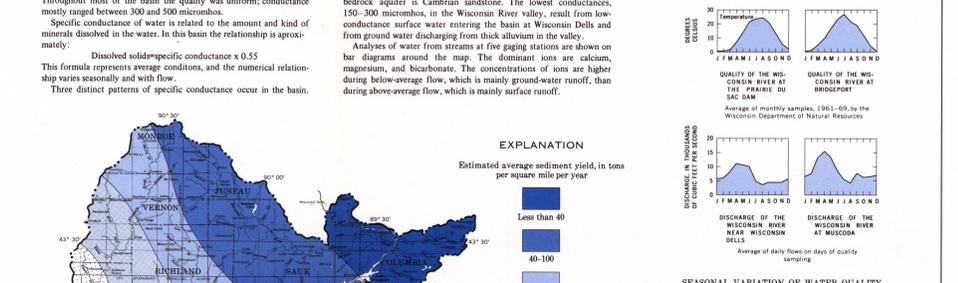
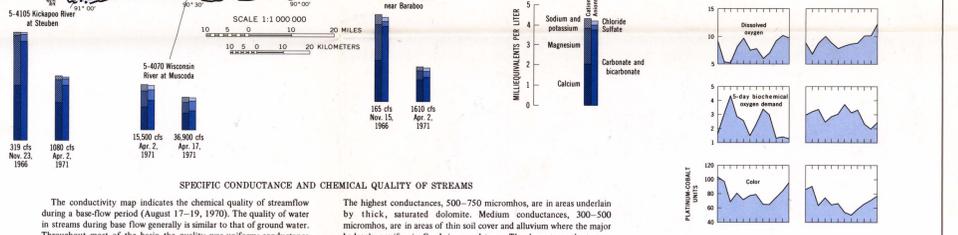
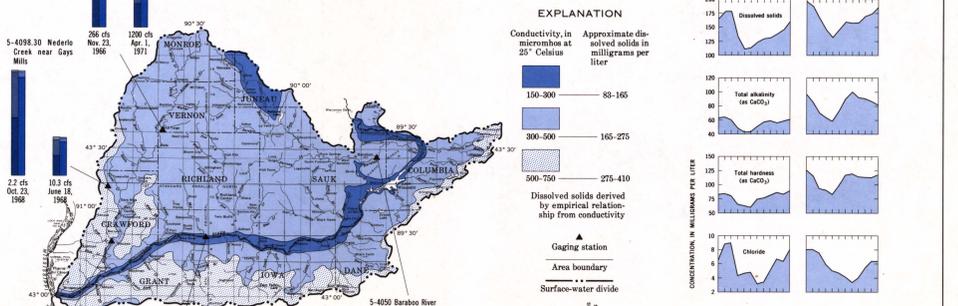
Streams in the lower Wisconsin River basin contain abundant water of good chemical quality. About 1,600 billion gallons of surface water enter the basin each year, and about 2,200 billion gallons leave. The present major uses of this water are transportation of water, fish and wildlife habitat, recreation, and hydroelectric power generation. Man's use of the water, especially upstream from the basin, has altered the chemical quality of the Wisconsin River slightly; several tributary streams are affected by residues. At present surface water is not used for municipal supplies because the cost of treatment is high and ground-water supplies are adequate. Because of the well drained land surface, there are only a few natural lakes in the basin.



Use and criteria	Wisconsin River	Kickapoo River	Baraboo River	Sand and gravel aquifer	Galena-Platteville aquifer	Sandstone aquifer	Precambrian crystalline rocks
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Based on data through 1968 water year. Scale 1:1,000,000. Operated by Wisconsin Department of Natural Resources.

Surface water is generally of good quality, although most is very hard (181 mg/l or greater). Water in the Wisconsin River is only moderately hard (61-120 mg/l). Most streams in the basin are relatively unpolluted, although the quality in some streams has been degraded locally. Nutrients and biological and chemical contaminants have caused much of this degradation. Wisconsin has set standards of surface-water quality, and the Department of Natural Resources is responsible for the detection and abatement of pollution. Sportmen have been warned by the department to limit consumption of fish caught in the Wisconsin River to meet per week due to high concentrations of mercury in the fish. Stream sediment yields are less than 40 tons per square mile per year in the eastern part of the basin but are more than 400 tons per square mile per year in the western part.



Agency	Geology	Soils	Topography and drainage	Land use	Water budget	Ground- and surface-water relationships	Surface water	Surface-water quality	Pollution	Ground-water quality	Water use
The Geological and Natural History Survey, University of Wisconsin—Extension 1815 University Avenue, Madison, Wis. 53706											
U.S. Department of the Interior, Geological Survey 1815 University Avenue, Madison, Wis. 53706											
U.S. Department of Agriculture, Soil Conservation Service 4601 Hammenry Road, P.O. Box 4248, Madison, Wis. 53711											
Wisconsin Department of Natural Resources 4610 Hammenry Road, P.O. Box 450, Madison, Wis. 53701											
U.S. Department of the Army, Corps of Engineers, St. Paul District 1717 U.S. Post Office and Custom House, St. Paul, Minn. 55101											
U.S. Environmental Protection Agency, Water Quality Office (formerly Federal Water Quality Administration) 7411 Lyndale Avenue South, Minneapolis, Minn. 55423											
Public Service Commission of Wisconsin 432 Hill Farm State Office Building, Madison, Wis. 53702											
U.S. Department of the Interior, Bureau of Outdoor Recreation, Lake Central Region 3853 Research Park Drive, Ann Arbor, Mich. 48104											
U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife Room 630 Federal Building, Fort Snelling, Minn. 55111											

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