wild and scenic river study

june 1979

SWEETWATER RIVER

WYOMING

The Heritage Conservation and Recreation Service (formerly the Bureau of Outdoor Recreation) conducted the field investigations for this study and prepared the formal draft report. Following reassignment of the study in March of 1978, the report was revised and reprinted by the National Park Service.

United States Department of the Interior

Wild and Scenic River Study

SWEETWATER RIVER

Prepared by

National Park Service

Denver Service Center

P99/D-1455

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Findings

In accordance with criteria set forth in the Wild and Scenic Rivers Act and in the U.S. Department of the Interior/U.S. Department of Agriculture "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas . . .," the 9.5-mile (15.3-km) segment of the Sweetwater River from Wilson Bar downstream to Spring Creek was determined to be ineligible for inclusion in the National Wild and Scenic Rivers System. This determination was based on the study reach's failure to meet the minimum length criterion of 25 miles, combined with a lack of sufficient areal extent and number of "outstandingly remarkable values" to warrant making an exception to the length criterion.

However, the study team found the segment possesses outstandingly remarkable historic and excellent water quality and fish and wildlife values and is worthy of protection and preservation.

Recommendations

Based on the above findings, the Sweetwater River from Wilson Bar downstream to Spring Creek is not recommended for designation as a component of the National Wild and Scenic Rivers System at this time.

Should a contiguous portion of the river be studied, found eligible, and recommended for inclusion, this segment would qualify as a "wild" river. Assuming no degradation of resource values, the area is recommended for inclusion as such.

Sweetwater Canyon is further recommended for protection by designation and management as Wilderness, assuming the area qualifies for this designation (this evaluation to be completed in 1979).

Should the study area not qualify for Wilderness and not be made part of an extended wild and scenic river area, it should receive some other form of special recognition, designation, and management that guarantees long-term protection of the area and its values; an "Area of Critical Environmental Concern"[1] is a designation that may be appropriate in this case.

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[1]See footnote 1 in chapter V.

CHAPTER I

INTRODUCTION

A. BACKGROUND

This report was prepared under the authority of the Wild and Scenic Rivers Act, P. L. 90-542, dated October 2, 1968. The Act preserves "certain selected rivers" that "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values . . . in their free-flowing condition . . . for the benefit and enjoyment of present and future generations."

The Act named eight rivers as initial components of the National Wild and Scenic Rivers System. Twenty-seven others were listed as potential additions, and a procedure was framed for assessing their eligibility.

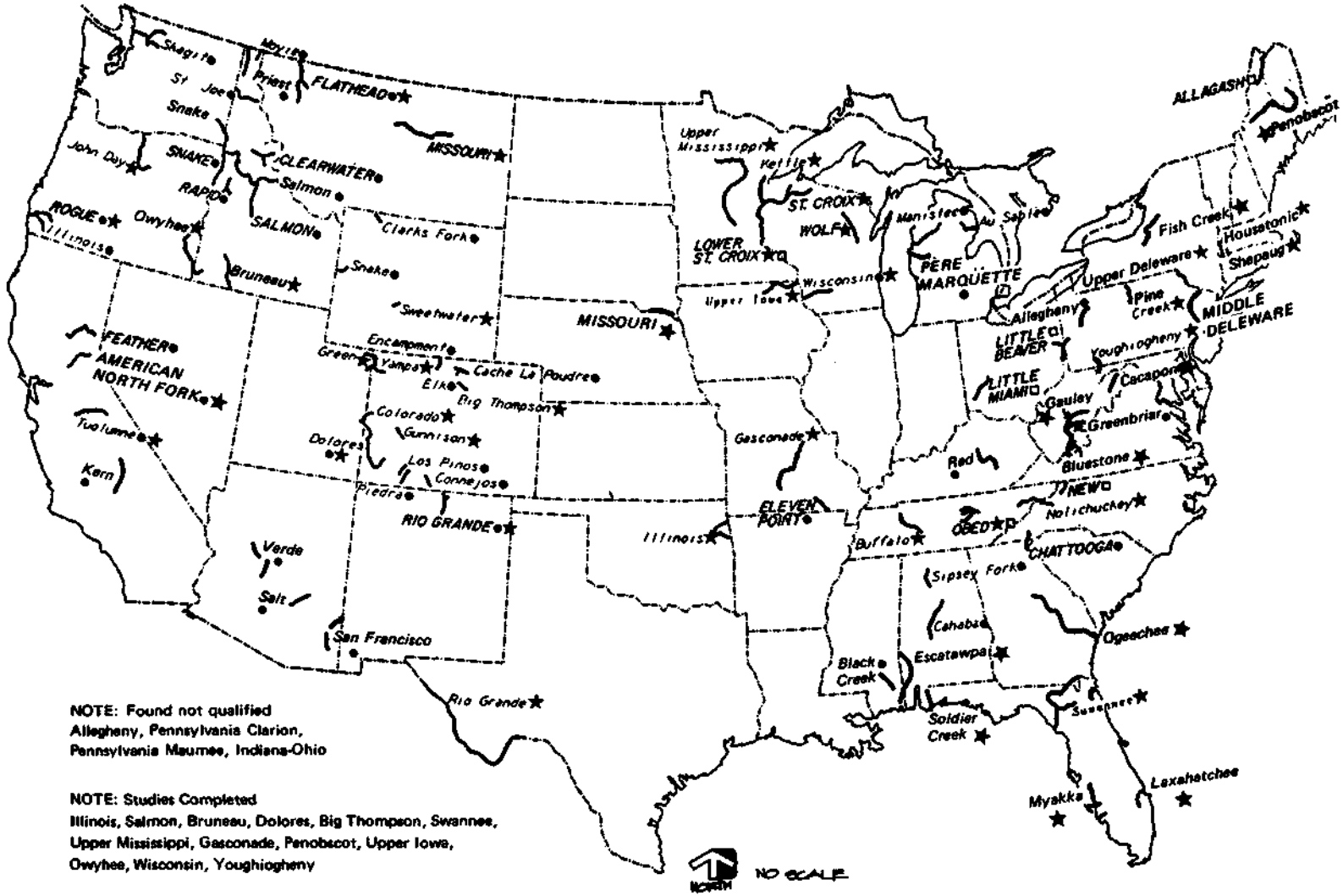
The Act defines three possible classifications for eligible rivers - wild, scenic, and recreational - and requires that consideration be given in the study report to land acquisition, right and use of occupancy, water resource developments, mining, and administration.

Since its passage, the Act has been amended six times. Seven more river segments have been added to the National System through Congressional action, and five others were added as State-administered components. Thirty-one have been added to the list of potential candidates, and procedures for evaluation were refined in 1970 by the joint USDI/USDA "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas Proposed for Inclusion in the National Wild and Scenic Rivers System under Section 2, Public Law 90-542." Figure I-1 shows the components of the National Wild and Scenic Rivers System.

One of the amendments, P. L. 93-621, dated January 3, 1975, listed 29 new "study rivers" in section 5(a). Among these was "(51) Sweetwater, Wyoming: The segment from Wilson Bar downstream to Spring Creek." The location is shown in figure I-2.

B. THE STUDY

In February 1977, an interagency team was formed to conduct the Sweetwater River study. The Bureau of Outdoor Recreation led the study, and the Bureau of Land Management (BLM), as the principal land-management agency, contributed much data and shared an equal role in the decisionmaking process. Several other Federal and State agencies made significant contributions; a list of contributors appears in appendix A.



NOTE: Found not qualified
Allegheny, Pennsylvania Clarion,
Pennsylvania Maumee, Indiana-Ohio

NOTE: Studies Completed
Illinois, Salmon, Bruneau, Dolores, Big Thompson, Swannee,
Upper Mississippi, Gasconade, Penobscot, Upper Iowa,
Owyhee, Wisconsin, Youghiogheny

NO SCALE

NATIONAL WILD AND SCENIC RIVERS SYSTEM

AS AUTHORIZED BY P.L. 90-542, as amended

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

EXISTING COMPONENTS

Study In Progress
MANAGEMENT OR STUDY RESPONSIBILITY
★ Department of the Interior
● Department of Agriculture
□ State/Local

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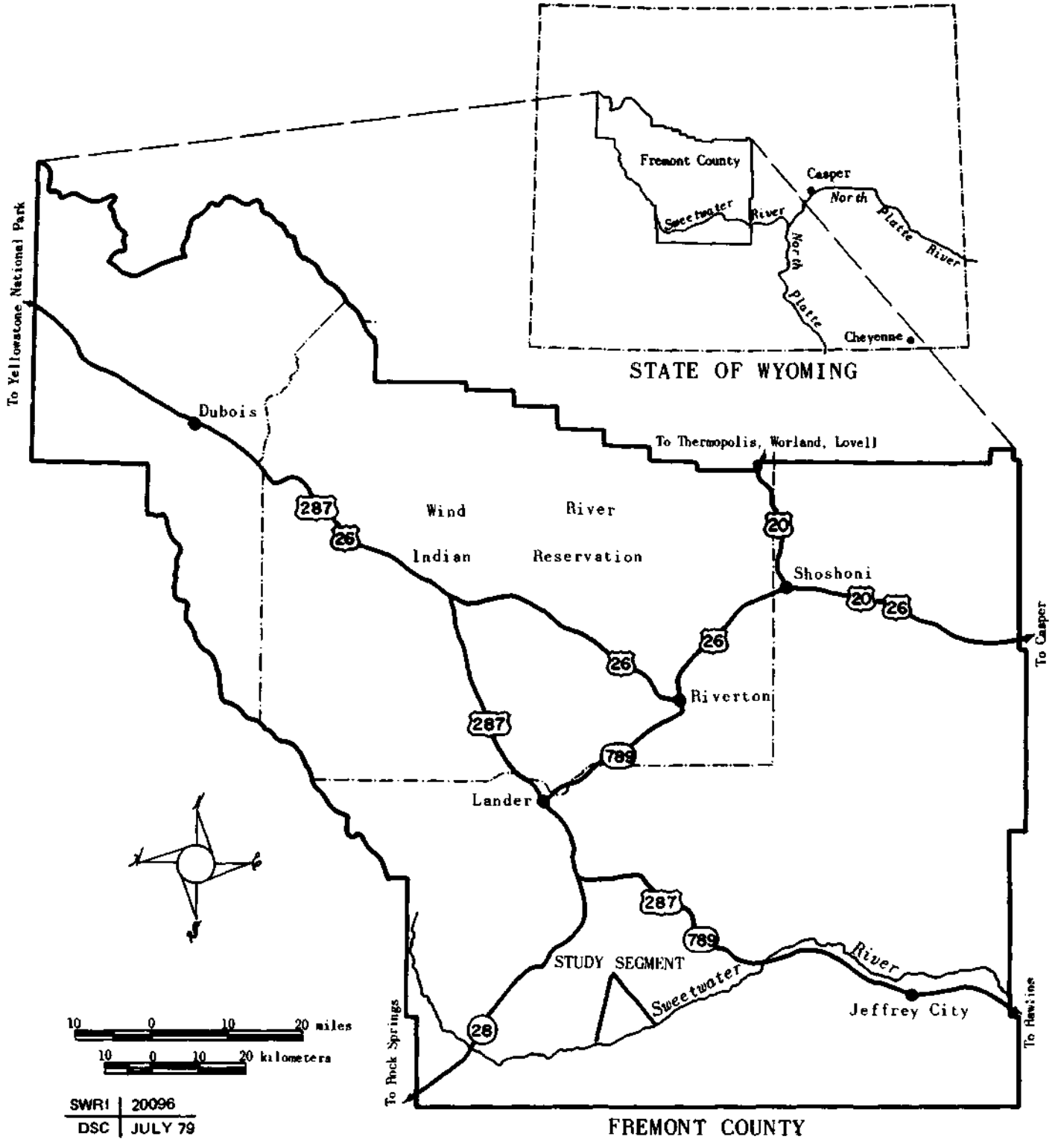
Figure 1-2

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Study Area



The study proceeded in five basic phases:

Collection of Study Data. The team used existing data to full advantage, especially the BLM proposal for a "Natural Area" withdrawal for the Sweetwater Canyon area. The study region was Fremont County, Wyoming; the river corridor was generally the adjacent land within the line of sight or 1/4 mile on either side, whichever was least. Data were provided by Federal, State, and local agencies, citizen groups, and individuals.

The development of new data and a detailed inspection of the river were also required. The Sweetwater River was examined on foot, by motor vehicle, and from the air.

The basic information gathered on Fremont County and the Sweetwater River is presented in chapters II and III.

Determination of Eligibility. The Sweetwater River study segment was evaluated to determine its eligibility for inclusion in the National Wild and Scenic Rivers System. Direction for this phase was found in the Wild and Scenic Rivers Act and supplemented in "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas . . . ."

A two-step process for determining eligibility was used:

1) the study segment was evaluated for inclusion in the National System using the data presented in chapter III; and

2) all input from the public, including information obtained in letters and interviews, was utilized by the interagency team to review its eligibility determination.

Classification. Although ineligible because of length, the river was found to be otherwise eligible for designation. The administration has proposed study of the remainder of the Sweetwater River upstream from Wilson Bar, which, if found eligible, could also render the current study segment eligible. Therefore, the classification criteria set forth in the Act and the Guidelines were applied to the study segment so that in the event it should become eligible, the classification process would be complete.

The results of the eligibility and classification determinations are presented in detail in chapter IV, "Eligibility and Classification."

Public Involvement. Public involvement and input were solicited through the BLM Rawlins District Advisory Board, talks to various other groups, news releases, interviews, and public information packets.

Most of the people who responded to the findings advocated maximum wild and scenic river designation and supported the President's proposal that the study be done on the entire river upstream from Wilson Bar.[1]

Conclusions and Recommendations. The final step was evaluation of data, public response, and selection criteria. The findings and recommendations presented at the beginning of the report and in chapter VI are the results of this evaluation.

[1]At the direction of the President, the Secretary of the Interior submitted proposed legislation to the Congress on May 26, 1977. This proposal would have amended the Wild and Scenic Rivers Act by designating 46 miles of the Sweetwater River from its source downstream to Wilson Bar for study as a potential addition to the national system. The 95th Congress took no action on this proposal.

CHAPTER II

REGIONAL SETTING

A. INTRODUCTION

For the purpose of this study, the region was defined as Fremont County, Wyoming. Information was derived from several sources: the 1975 Wyoming Statewide Comprehensive Outdoor Recreation Plan, the Bureau of Land Management's Moneta and Sweetwater Unit Resource Analysis and Management Framework Plans, Bureau of Land Management central files, various Fremont County planning documents, and input from numerous Federal and State agencies and private organizations and individuals.

B. LANDSCAPE

Location and Size

Fremont County is centrally located in Wyoming as shown in figure II-1. It covers about 9,200 square miles (24,000 km^2) or nearly 10 percent of the total land area of Wyoming and is approximately equivalent in size to the State of Vermont. It is the second largest county in Wyoming in land area and one of the largest in the country.

General Landform

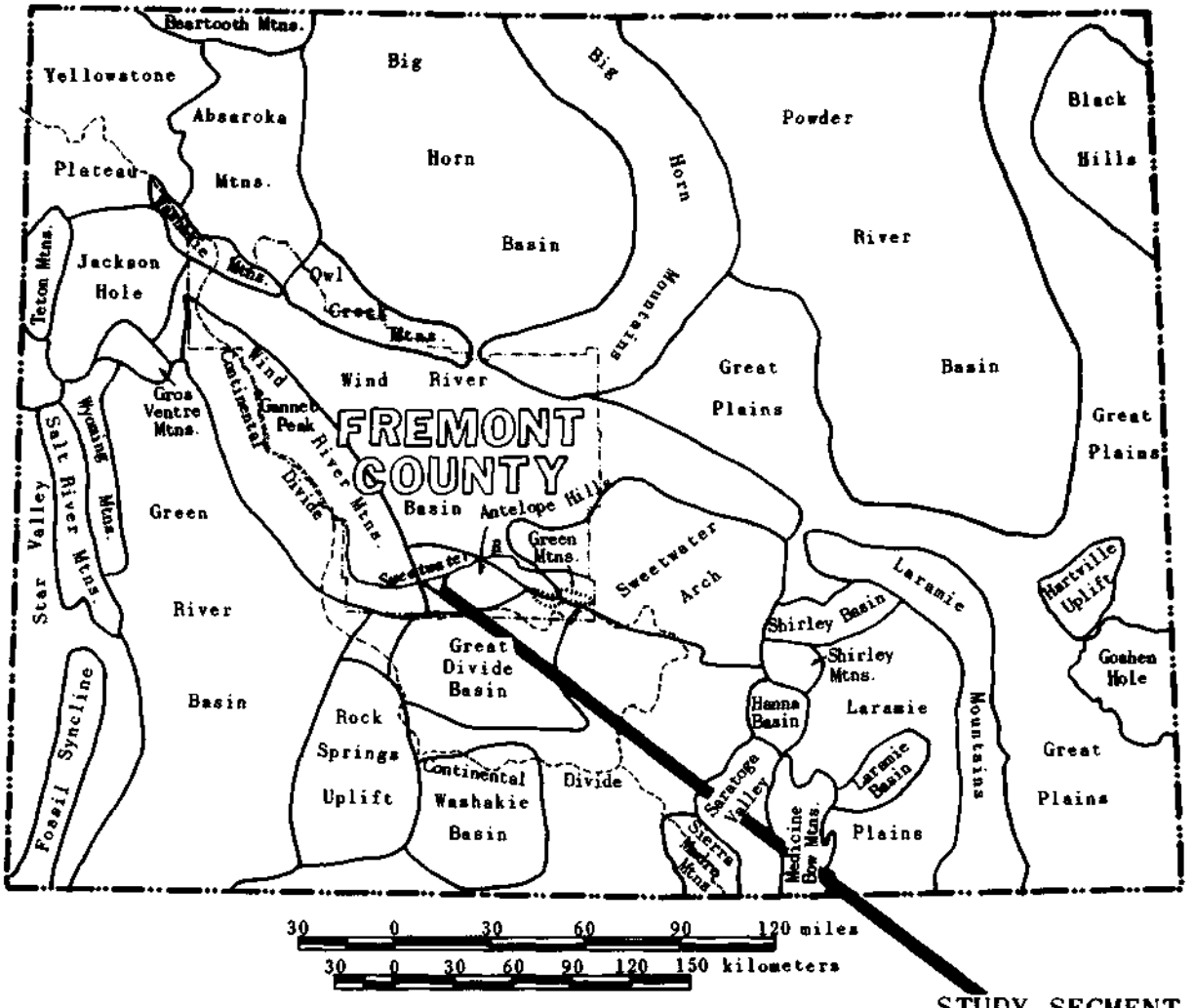
Fremont County is bounded on the west by the Wind River Range, which forms part of the Continental Divide. The southern and southeastern portions of the county contain a variety of topographic features, including high plains, buttes, points, large rock outcroppings, and mountains; e.g., Antelope Hills, the Great Divide Basin, and the Green Mountains, as shown in figure II-1. The northcentral portion of the county is flatter, and the eastern margin is a mixed grouping of lesser foothills, mountains, valleys, and flatlands. The northern and northwestern parts of the county are characterized by high, jagged mountain peaks and high mountain meadows.

The mountains surrounding the county have peaks reaching 13,000 feet (4,000 m) in elevation and contain great living glaciers. Gannett Peak, highest point in Wyoming at 13,783 feet (4,301 m), is located within this mountain range. These high mountains present a sharp contrast to the central part of Fremont County where the terrain slopes off to form a large basin floor with elevations between 4,500 and 6,000 feet (1,370 and 1,830 m). The elevation difference between the highest and lowest points within the county is nearly 9,000 feet (2,750 m).

Figure II-1

SWEETWATER WILD AND SCENIC RIVER STUDY

Wyoming Topographic Features



Source: Robert H. Brown, *Wyoming Occupance Atlas* (Laramie, Wyoming, 1970), p. 9.

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C. CLIMATE

Fremont County, due to the variation of elevation and surface features, exhibits a wide range of temperature and precipitation. Excluding the high mountain areas, the county has a semiarid climate with hot summers, cold winters, and an erratic precipitation of 10-20 inches (25-31 cm) annually, as shown in figures II-2 and II-3.

Wide daily and seasonal variations in temperature, low humidities, and high evaporation rates are characteristic of the area. Temperatures can range from as high as 100°F (38°C) in summer to -40°F (-40°C) in winter. Much of the annual precipitation falls as snow, usually from October through May. The frost-free growing season ranges from 2 to 4 months, decreasing in length with an increase in elevation.

December, January, and February are generally the coldest months, with the mean temperature for each below freezing. Snowstorms which occur during these months produce a snow cover of long duration, often lasting from late fall through spring.

In spring (March, April, and May), the county gets its heaviest snowstorms with the most snow in April. Wind speed, widely variable due to geographical location, elevation, and topography, is highest in the spring. The wind usually blows from the southwest throughout the year.

The typical summer weather pattern consists of cool, clear mornings followed by a cloud buildup in the early afternoon. The clouds are sometimes accompanied by widely scattered thundershowers which bring needed precipitation during this characteristically hot, dry period.

September and October bring dry, sunny days and clear, chilly nights. Periods of Indian summer days may be interspersed with cold spells. Maximum daily temperatures during these months are between 60°F (16°C) and 73°F (23°C).

November marks the onset of winter with snow flurries or light snows likely. The temperature often drops to freezing or below. Although the maximum daily temperature may occasionally reach 50°F (10°C) or 60°F (16°C), the mean is about 43°F (6°C).

The average annual wind speed at Riverton is 12 miles per hour (mph) (19 kilometers per hour; kph), and the Lander weather station reports an average wind speed of 7 mph (11 kph), one of the lowest in the nation. High wind speeds and cool to cold air temperatures sometimes combine to produce harsh weather conditions which can cause frostbite or hypothermia.

Figure II-2

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Average Temperature (Degrees above zero Fahrenheit)

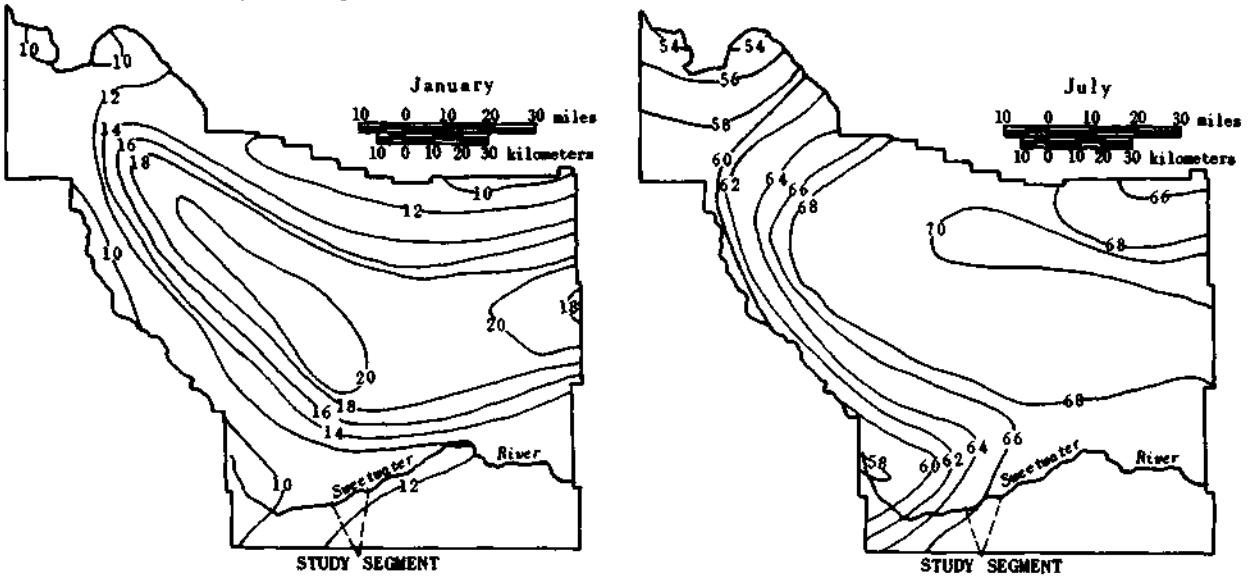
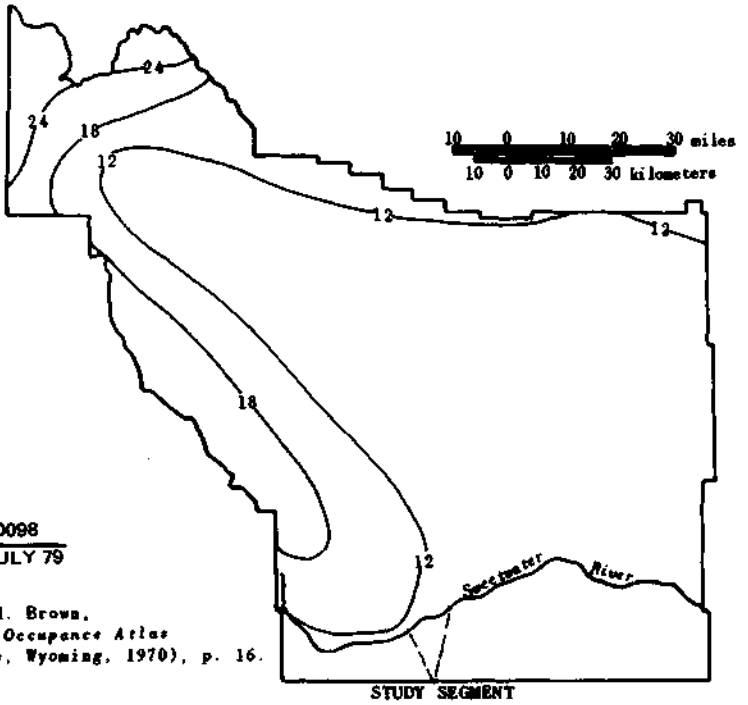


Figure II-3

Average Precipitation (inches per year)



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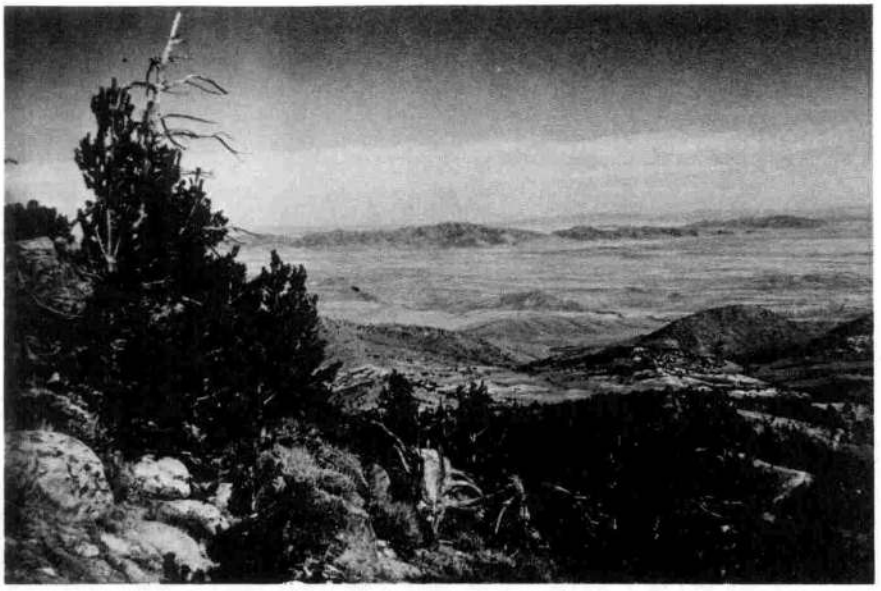
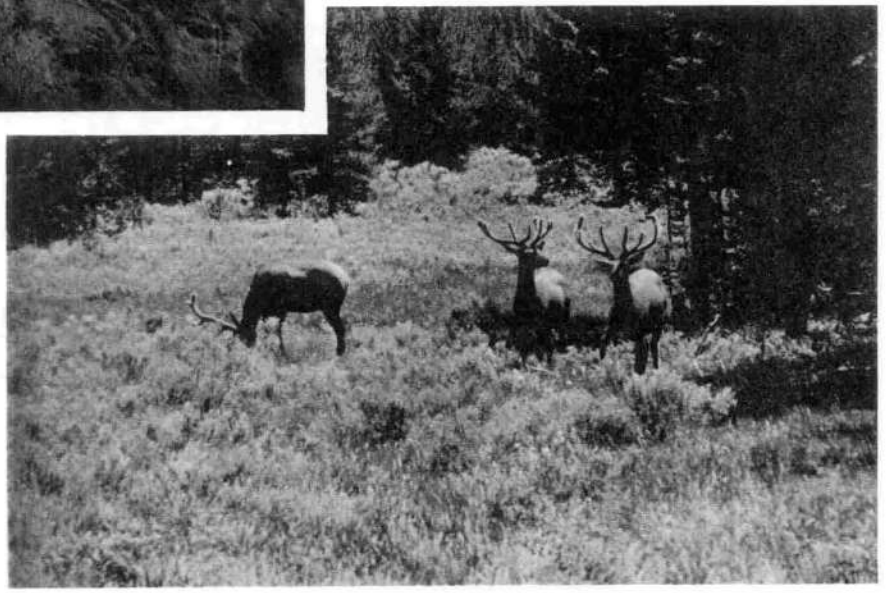
SOURCES: Robert H. Brown, *Wyoming Occupance Atlas* (Laramie, Wyoming, 1970), p. 16.



Wild Horse Point Overlook in the Green Mountains.

An aerial view of the Sweetwater River with the Wind River Mountains in the background.



Large game such as these elk are abundant in Fremont County.

D. SOILS

Throughout Fremont County are portions of 20 major soil associations. These range from dark-colored soils and rock outcrops in the alpine region to grey-brown soils in the dry basin areas. The general discussion on soils that follows is based on a very broad survey. Figure II-4 defines the location and components of these soil units. The 20 soil associations are divided into two groups of mountain soils and two groups of basin soils as follows:

Mountain Soils

Soil associations 1-6 are dark- and light-colored moist soils of the high mountains. The topography varies from steep to sloping or rolling, and the soils are developing in residuum and transported materials from igneous, metamorphic, and sedimentary bedrocks. Some soils are developing in gravelly, cobbly, and stony glacial moraines and outwash. Vegetation is predominantly forest but includes grass-shrub parks. Logging, grazing, recreation, and wildlife habitat are the principal uses. These soils are present in the mountainous areas in the western and northwestern portions of Fremont County and in the northeastern corner.

Dark-colored soils of the mountains and valleys as represented by soil associations 7 and 8 are moist in some parts during the summer and are developing in residuum and transported materials from igneous and sedimentary bedrocks. Vegetation is predominantly grass-shrub and scattered patches of timber, with grazing and wildlife habitat as the principal uses. These soils are restricted to northeastern and southwestern areas of the county.

Basin Soils

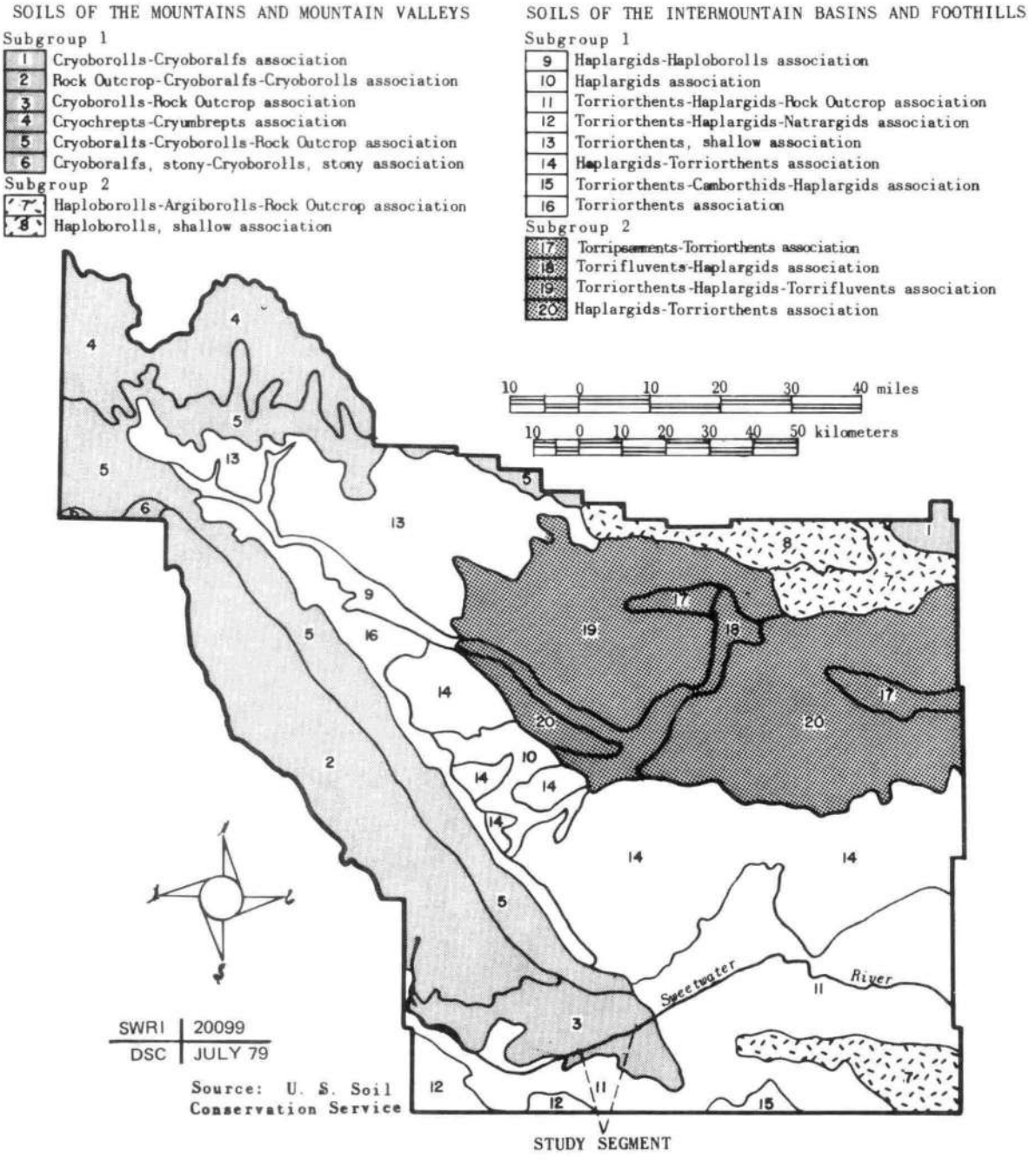
Soil associations 9-16 are dominantly light-colored in basins, terraces, and fans and are usually dry but may be moist in some parts during the summer. Soil topography ranges from nearly level to steep, rolling, or undulating, and supports grass-shrubs as the predominant vegetation. The soils are developing in alluvium on stream terraces, alluvial fans, and flood plains or in residuum from soft sandstone, shale, or siltstone bedrock uplands, or glacial till on rolling moraines. Irrigated hayland and pasture, grazing, and wildlife habitat are the principal uses. The largest category, these soils extend throughout all but the northeastern corner of the county.

The dominantly light-colored soils of associations 17-20 are located in level to undulating basins, terraces, and fans which are usually dry. These soils are developing in alluvium wind-laid sands and residuum on alluvial fans, stream terraces, and bedrock-controlled uplands. Vegetation is grass-shrub; grazing, irrigated cropland, and wildlife habitat are the principal uses. These soils are present only in the northeastern portion of the county.

Figure II-4

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Soil Associations



E. VEGETATION

Four main vegetation patterns predominate. The first includes barren ground supporting primitive plant climaxes, tundra, bare rock, and glacial ice in the high mountain areas, plus barren, shifting sand dunes, especially in the southern lowland desert areas. The second vegetative pattern consists of natural forest cover, primarily on mountain slopes and along streams. Dry basin forage areas, with a combination of grasses and desert scrub, cover well over half of Fremont County, as indicated in figure II-5. Agricultural land under irrigation is the fourth vegetative pattern.

The barren ground class varies the most widely and is probably the least important from an economic standpoint. Natural forested areas include unmixed stands of conifer trees (including dwarf pine at higher elevations), mixtures of conifer and deciduous trees in some locations, and pure stands of deciduous trees along lowland streams. Marketable timber covers a relatively small portion of the county, primarily in the northwest.

Brush and desert scrub predominate in nonirrigated lowland forage areas in the drier southern and eastern parts of the county, with grass predominating on the fringes of the high mountain areas. Agricultural crops and pasture are irrigated extensively where water is available. Soils, degree of slope, availability of moisture, temperature, catastrophic natural forces, and man's agricultural needs combine to produce everchanging vegetation patterns.

A list of plants known or thought to exist in Fremont County is included in appendix C. Included are five species under review or proposed for possible threatened or endangered species status.

F. FISH AND WILDLIFE

Fish and wildlife are important resources, prized for their recreational, aesthetic, and economic values. Game species include both warm and cold water fish, waterfowl, small birds, and large and small mammals. Nongame species include fish, various fowl, small mammals, predators, and carrion eaters.

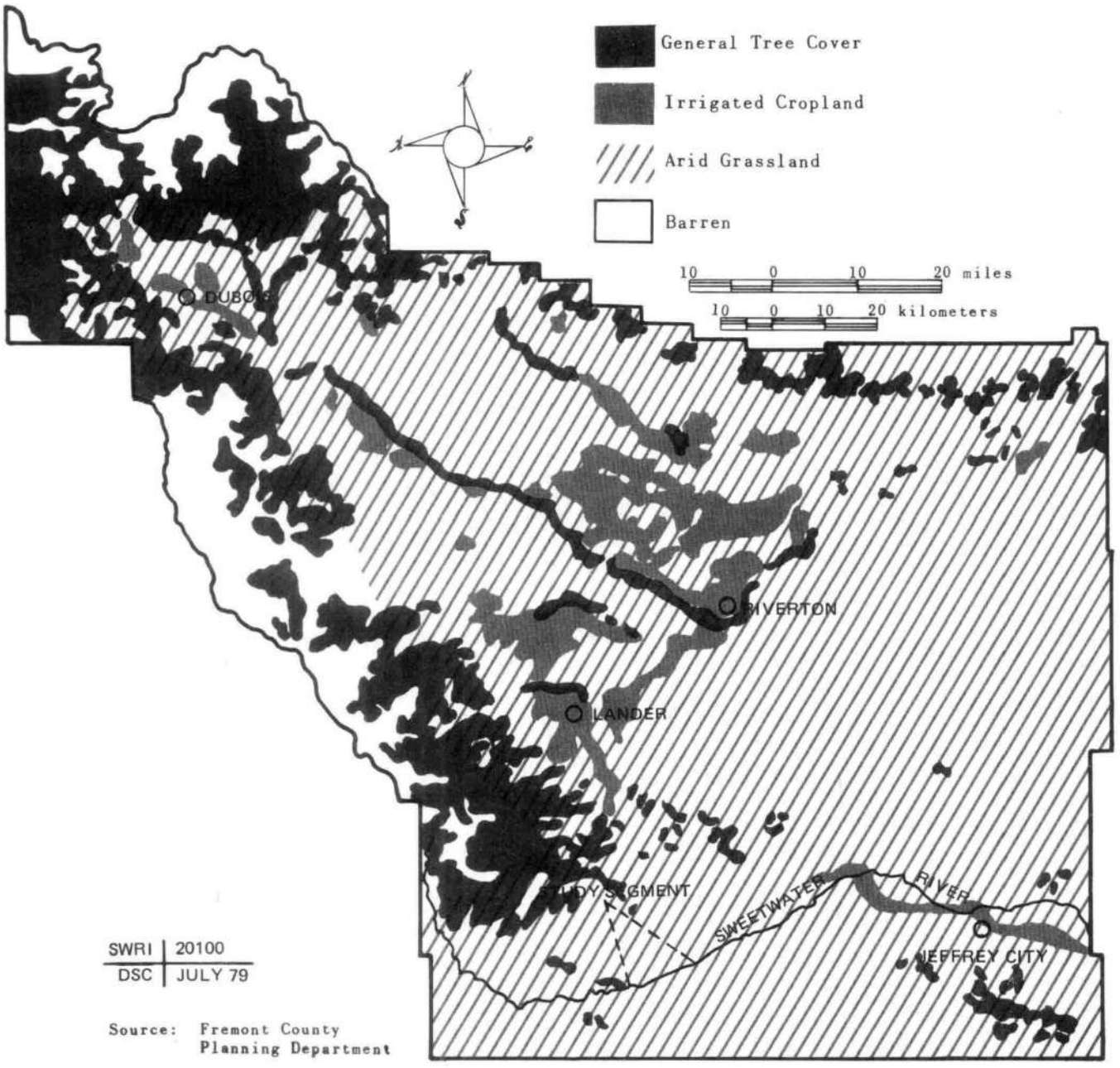
Species of trout include golden, cutthroat, rainbow, brown, brook, mackinaw, and splake. Warm water game fish are walleye, sauger, largemouth bass, black crappie, bluegill, channel catfish, stonecat, black bullhead, and yellow perch. Other species of fish are grayling, whitefish, and ling or burbot.

There are no threatened or endangered fish species known to inhabit Fremont County waters.

Figure II-5

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Vegetation



Source: Fremont County
Planning Department

Sparrows, goldfinches, buntings, bluebirds, jays, blackbirds, ravens, and many other bird species are seen. Golden eagles, prairie falcons, great-horned owls, and red-tailed hawks, along with approximately 25 other species of birds of prey, dwell here as well. Canada geese, mallards, pintails, redheads, loons, and great blue herons are some of the approximately 30 species of waterbirds and waterfowl known to inhabit the county.

Sage grouse are common throughout the plains area, and chukar and Hungarian partridge are present throughout most of the central and northern portions. Pheasants inhabit irrigated cropland near Riverton. Blue and ruffed grouse dwell in parts of the Wind River and Absaroka Mountains.

Many small mammals such as the coyote, bobcat, mink, weasel, skunk, ground squirrel, beaver, muskrat, cottontail rabbit, jack rabbit, and prairie dog inhabit the county.

Indigenous large mammals include the pronghorn antelope, white-tailed deer, mule deer, elk, moose, bighorn sheep, and black bear. Selected big game ranges are shown in figure II-6.

Game animal and upland bird populations and annual hunting harvests are shown in table II-1.

Threatened or endangered wildlife species known or suspected to live in the county are the grizzly bear, black-footed ferret, American peregrine falcon, northern Rocky Mountain wolf, and bald eagle.

G. WATER RESOURCES

Fremont County straddles the Continental Divide and encompasses lands which drain into several major river basins as shown in Figure II-1. A small part of the southwestern corner drains into the Green River, a tributary of the Colorado River, and part of the southern edge is drained by ephermeral and intermittent streams into the Great Divide basin (a closed basin). The major portion of surface water drains into the Sweetwater and Wind Rivers, both tributaries of the Missouri River System.

The county's contribution of surface water to the Snake River, Green River, and Great Divide basins is minimal. However, about 1,000,000 acre feet (1.23 billion m^3) annually flows from the Wind River, and according to U. S. Geological Survey readings taken at the Sweetwater River near Alcova, Wyoming, for water years 1914 to 1924 and 1939 to 1973, an average of about 91,000 acre feet (112 million m^3) flows from the Sweetwater River, as shown in figure II-7.

Figure II-6

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Selected Big Game Ranges

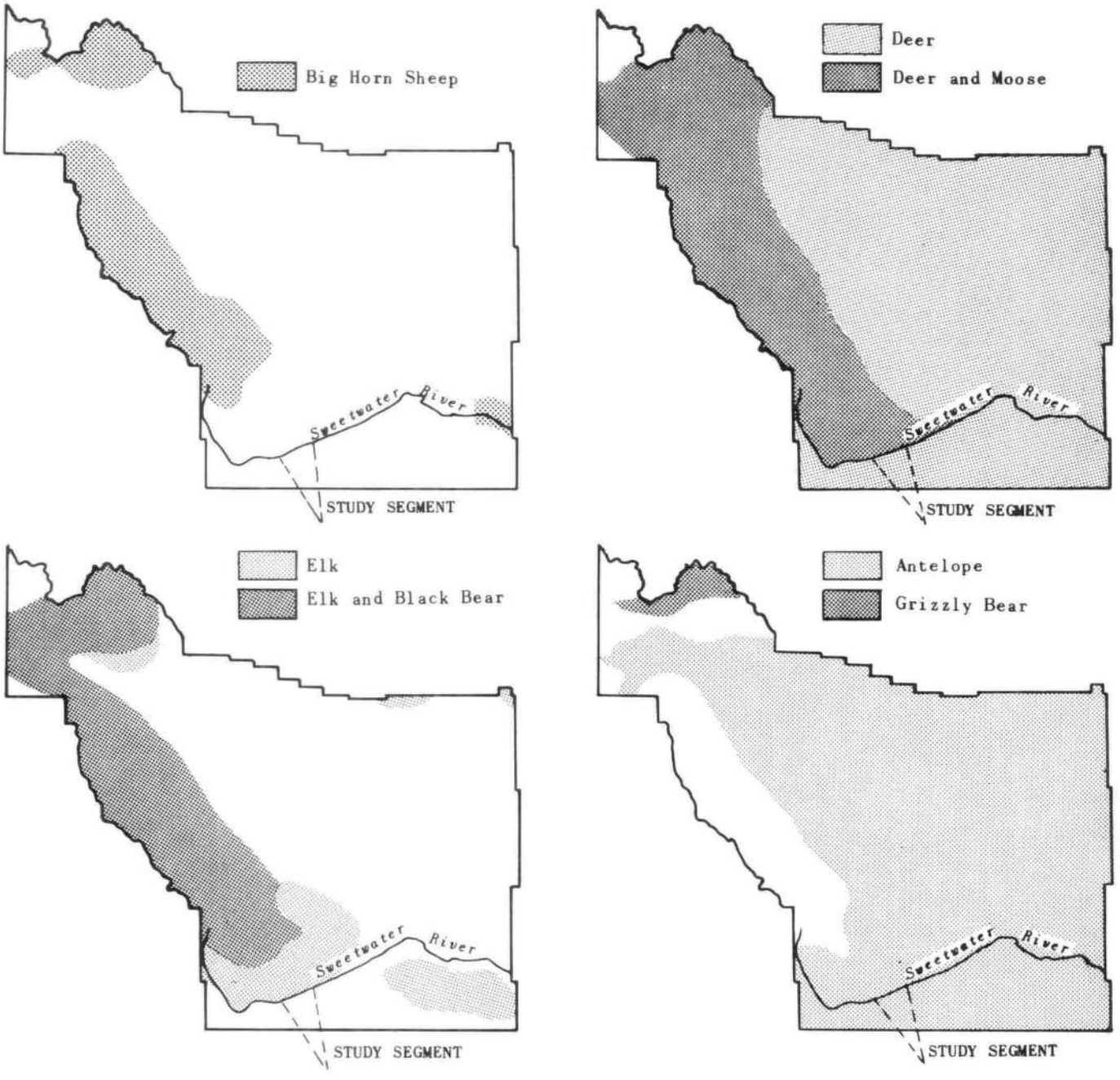


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TABLE II-1

BIG AND SMALL GAME ANIMAL SPECIES
Fremont County, Wyoming

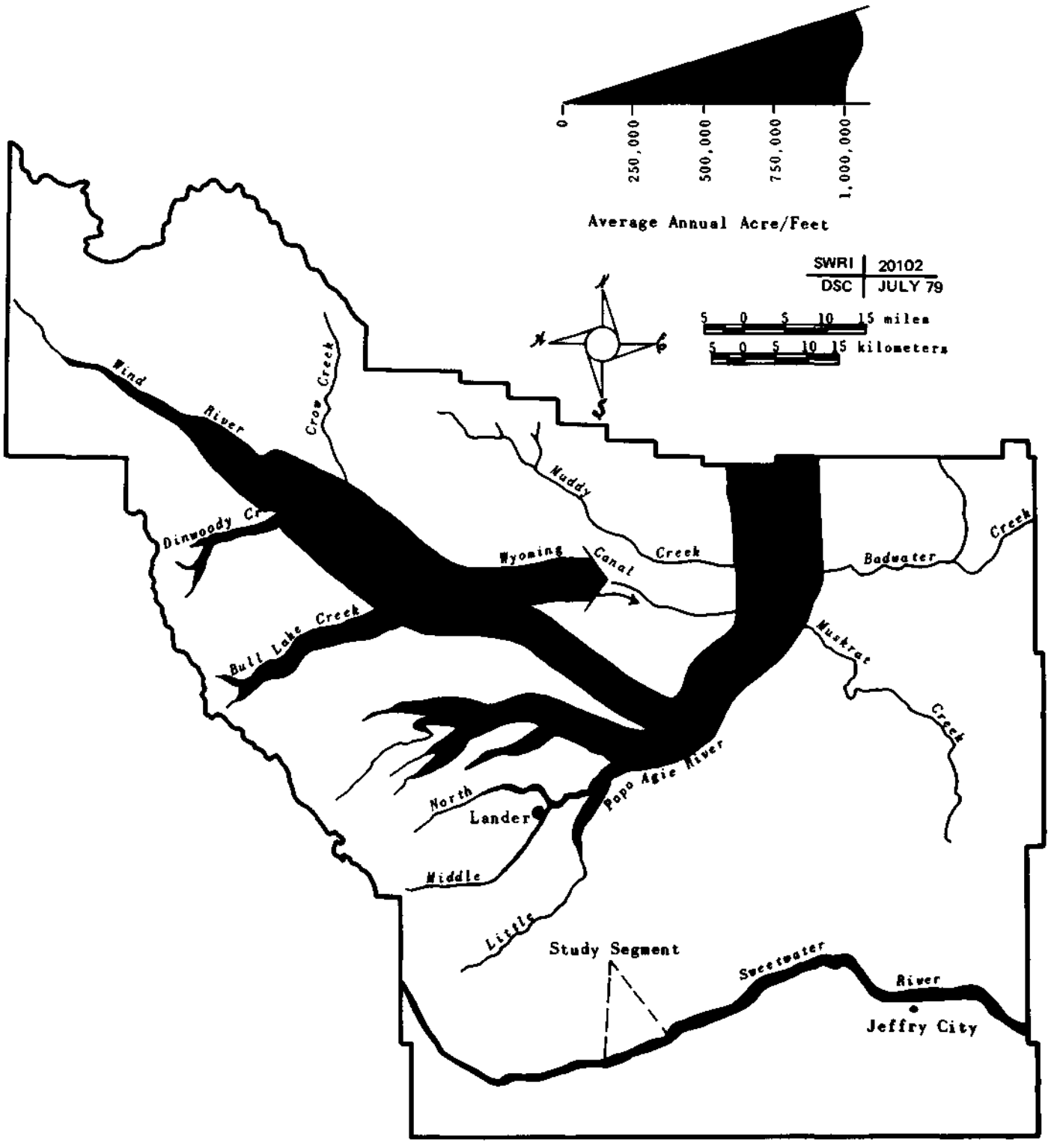
Large Game	Estimated Population	1975 Annual Harvest
Deer	9,500	4,213
Elk	6,800	2,727
Moose	500	10
Antelope	7,350	1,592
Bighorn Sheep	1,800	-0-
Black Bear	200	39
Grizzly Bear	4	-0-
Small Game		
Sage Grouse	29,000	7,281
Chukar	10,800	1,713
Pheasant	17,500	2,835
Blue and Ruffed Grouse	3,300	1,135
Hungarian Partridge	3,000	161
Mourning Dove	*	4,018
Cottontail Rabbit	70,500	12,365
Snowshoe Hare	*	75
Duck	*	8,628
Geese	*	228
Squirrel	*	75

*Estimates not available.

Figure II-7

SWEETWATER RIVER STUDY
FREMONT COUNTY, WYOMING

Average Annual Streamflow



There is a large disparity of available surface water in the county due to the variations in precipitation between the mountains and the semiarid basins. Snow and rainfall which are often abundant in the high mountains are usually lacking in the lowlands during much of the year. As a result, natural lakes, which are numerous in the national forests at higher elevations, are almost nonexistent in the lower basins. However, two water projects have been constructed at lower elevations by the Bureau of Reclamation to offset this imbalance.

Boysen Reservoir, the largest body of water in the county, was constructed for hydroelectric power, irrigation, recreation, fish propagation, sediment retention, and flood control. The Riverton Project was built primarily for irrigation. Project features are Bull Lake Dam, Pilot Butte Dam, Wind River Diversion Dam, and approximately 730 miles of canals. In addition, the Bureau of Indian Affairs has constructed a series of small irrigation projects, including Washakie and Dinwoody Reservoirs and Ray Lake. The major water projects in Fremont County are shown in figure II-8.

H. POPULATION AND LIFESTYLE

Population

Fremont County's population has increased since 1930, but generally at a decreasing rate as shown in table II-2. The 1975 population was estimated by the Fremont County Planning Department to be 31,728. The department also estimated that the 1980 population will be over 36,000, the 1990 population over 47,000, and by 2000, it may exceed 61,000.

TABLE II-2

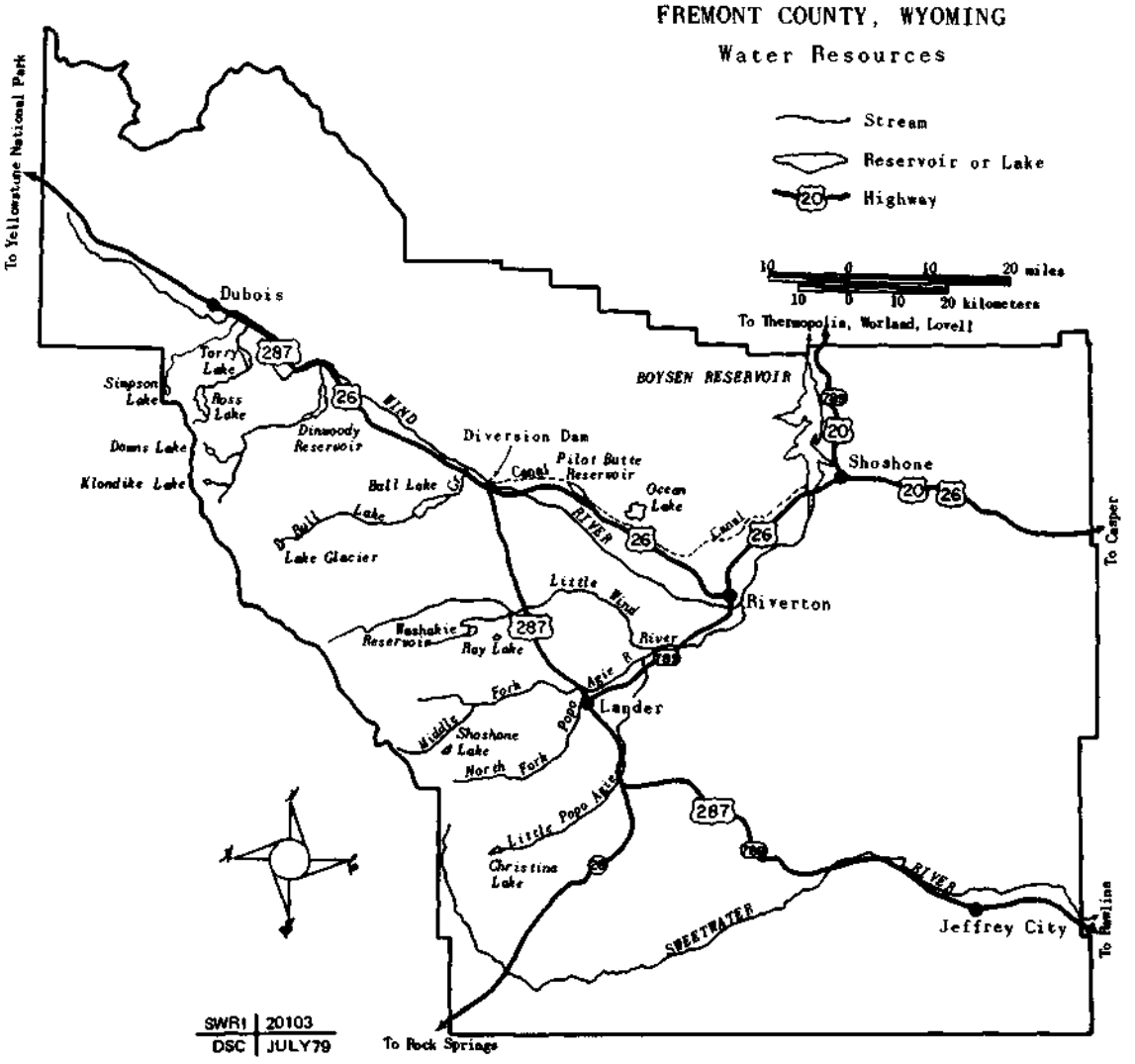
POPULATION
Fremont County, Wyoming

Year	Population	Absolute Differences	Percent of Increase or Decrease
1920	11,820	-	-
1930	10,490	- 1,330	- 11.25
1940	16,095	+ 5,604	+ 53.43
1950	19,580	+ 3,485	+ 21.65
1960	26,168	+ 6,588	+ 33.65
1970	28,352	+ 2,184	+ 8.35

Figure II-8

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Water Resources



More than half the population lives in seven of the county's cities and towns, as shown in figure II-9 and table II-3. This settlement pattern has held relatively constant since 1920, and urban and rural areas have shared equally in the expanding population. This can be explained, in part at least, by the continuing strength in agriculture and mining operations in the economy. In 1970, 47 percent of the residents were classified as rural (35 percent rural nonfarm and 12 percent rural farm), and 53 percent as urban.

TABLE II-3

POPULATION FOR SELECTED CITIES AND TOWNS
Fremont County, Wyoming

City or Town	1920	1930	1940	1950	1960	1970
Riverton	2,023	1,608	2,540	4,142	6,845	7,995
Lander	2,133	1,826	2,594	3,349	4,182	7,125
Shoshoni	561	263	226	891	766	562
Dubois	243	177	412	279	574	898
Hudson	977	328	330	293	369	381
Jeffrey City	--	--	--	--	--	574
Pavillion	--	--	176	241	190	181

Nine percent of the residents are 18 years of age or under, 75 percent are between 18 and 60, and the remaining 16 percent are over 60 years old. The median age is 25 years, as compared to the State average of 27 years and the national average of 29 years.

Median family income for Fremont County residents in 1970 was $8,932, while that for the State was $8,943 and that for the Nation was $9,590. In 1973 the per capita income was $3,496, compared with $4,696 for the State and $5,041 for the Nation.

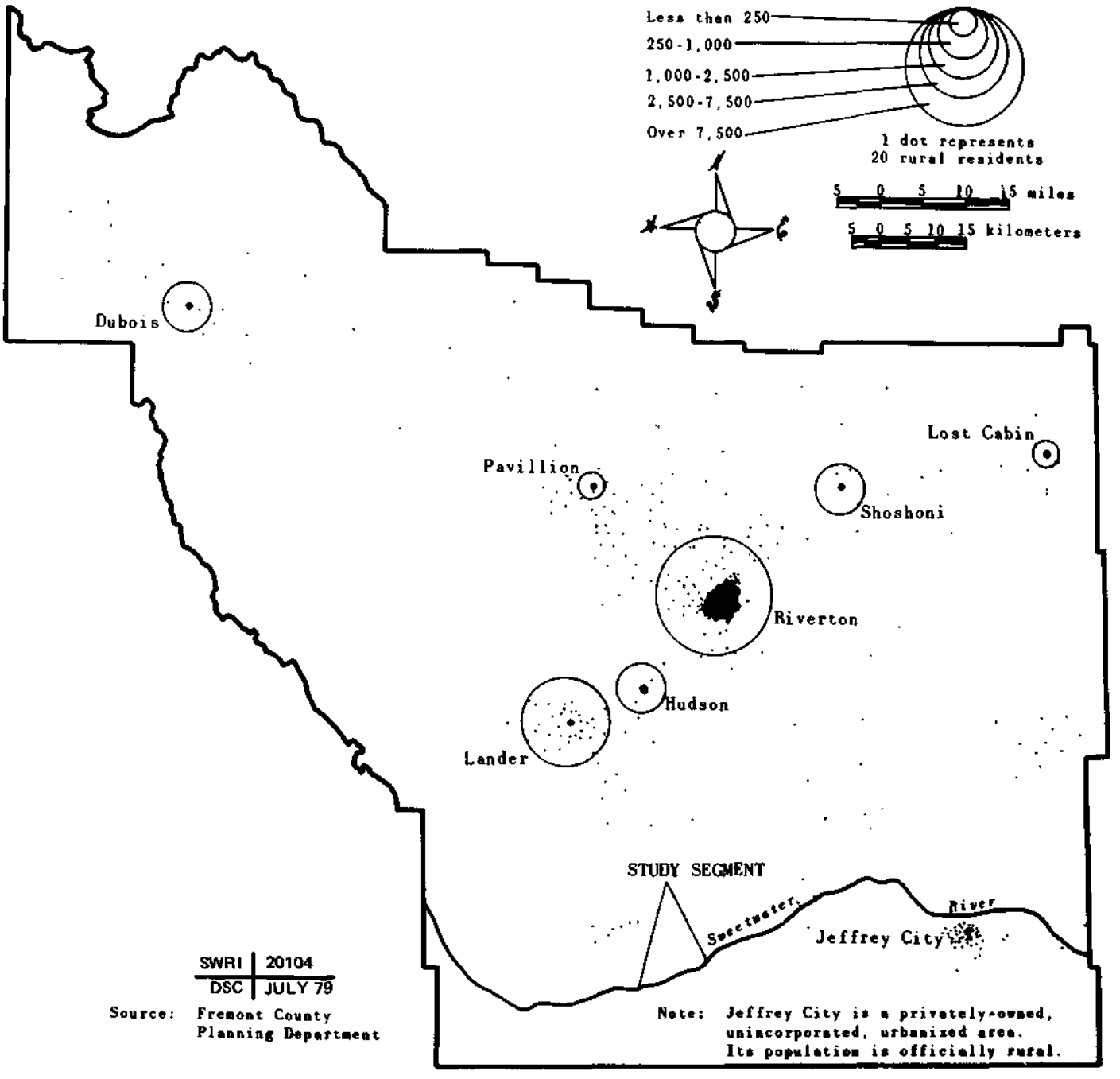
Population characteristics differ markedly from those of the Nation. For example, the density of the county is only 3.2 persons per square mile (1.2 persons per km^2), as compared to the Nation with 57.8 persons per square mile (22.3 persons per km^2). Wyoming has 3.4 persons per square mile (1.3 persons per km^2).

Lifestyle

Except for the two largest towns, Lander and Riverton, the county is basically rural in lifestyle. A distinct "small town" flavor and slower pace of life are prevalent. In each community, mining, agriculture (farming and ranching), and tourist-related services are the major employers.

Figure II-9

SWEETWATER RIVER STUDY
FREMONT COUNTY, WYOMING
Population Distribution



Many people have begun to move into the area because of energy-related jobs. A healthful climate and abundant outdoor recreational opportunities have attracted and will probably continue to attract people to the area as permanent residents.

I. ECONOMY

The economy, although composed of many general types of industry, is supported most strongly by government, mining, agriculture, tourism, and retail trade.

Mining

Mining is the largest industry and second largest employer, providing jobs for about 1,860 people; it has, however, the largest dollar payroll and produces the highest assessed value of products. The overall assessed value of minerals produced annually within the county has increased from approximately $53 million in 1970 to over $73 million in 1975. Of greatest importance are uranium and iron. Mineral locations are shown in figure II-10.

Government

Government is the single largest employer. Current figures indicate that Federal, State, and local governmental agencies employ approximately 2,440 people. The current annual combined government payroll amounts to slightly over $21 million, second to mining's annual payroll. Education has the largest single payroll, followed by the State Government, Federal Government, and local agencies.

Agriculture

The amount of land used for agricultural production, yield per acre, quantity of crops grown, and value of agricultural products have shown a steady increase. During the last decade the total annual value of agricultural products has increased from approximately $10 million to $20 million. As elsewhere, the number of farms and ranches has been decreasing, while the average size has been increasing.

The chief agricultural products include livestock (sheep and cattle) and hay. Some dairy products and vegetables are produced for local consumption.

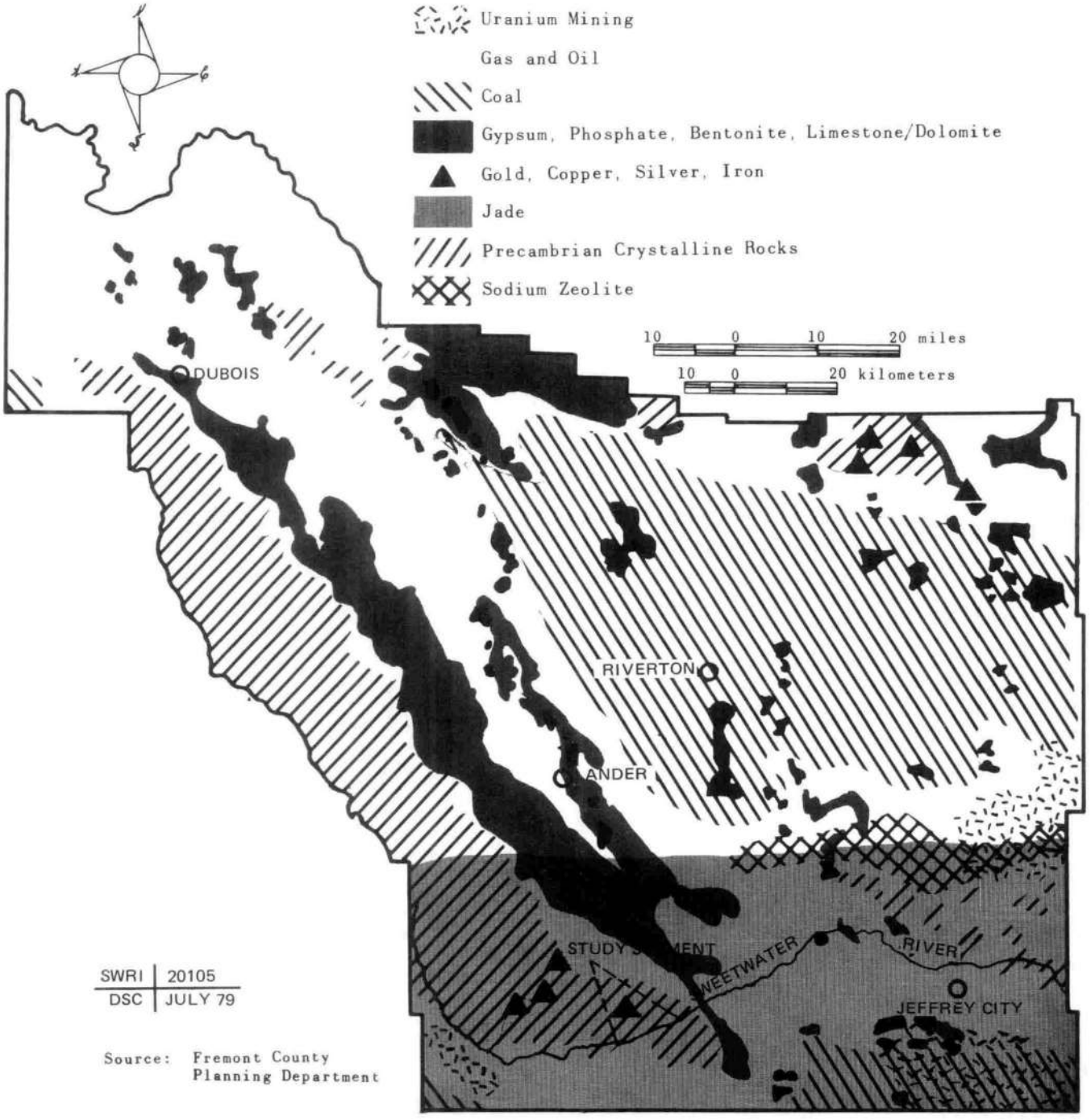
Tourism

Fremont County's wilderness areas, high mountain forests and lakes, abundant fish and wildlife, scenic beauty, and location on one of the principal access routes to Yellowstone and Grand Teton National Parks make it a popular tourist area.

Figure II-10

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Minerals



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DSC	JULY 79

Source: Fremont County
Planning Department

Tourism is of growing importance. Statistics from the Wyoming Travel Commission and Wyoming State Highway Department portray gradual increases each year in tourism. The Wyoming Highway Department's traffic records reveal that average daily traffic on the principal arteries within the county fluctuates greatly with the seasons. U.S. 287/ Wyoming 789 in the Lander area experiences an increase of 120 percent in its average daily traffic load between the slowest months of January, February, and March and the busiest months of June, July, and August. U.S. 26/287 in the Dubois area experiences an increase in traffic of 360 percent between the same time periods that can be linked to the popularity of Grand Teton and Yellowstone National Parks.

The amount of money spent by tourists and visitors is included in figures portrayed for retail trade and selected services. Annual tourism expenditures are difficult to quantify but are estimated by the Wyoming Department of Revenue and Taxation to be approximately $10 million.

Retail Trade

Retail trade has exhibited the largest recent growth in employment of any industry. There has also been a steady increase in volume of sales, payroll, and number of establishments. Current retail trade payrolls are nearly $10 million. Figures recently published by the Wyoming Department of Revenue and Taxation indicate that the 1975 combined wholesale and retail sales in Fremont County amounted to $144 million.

J. TRANSPORTATION

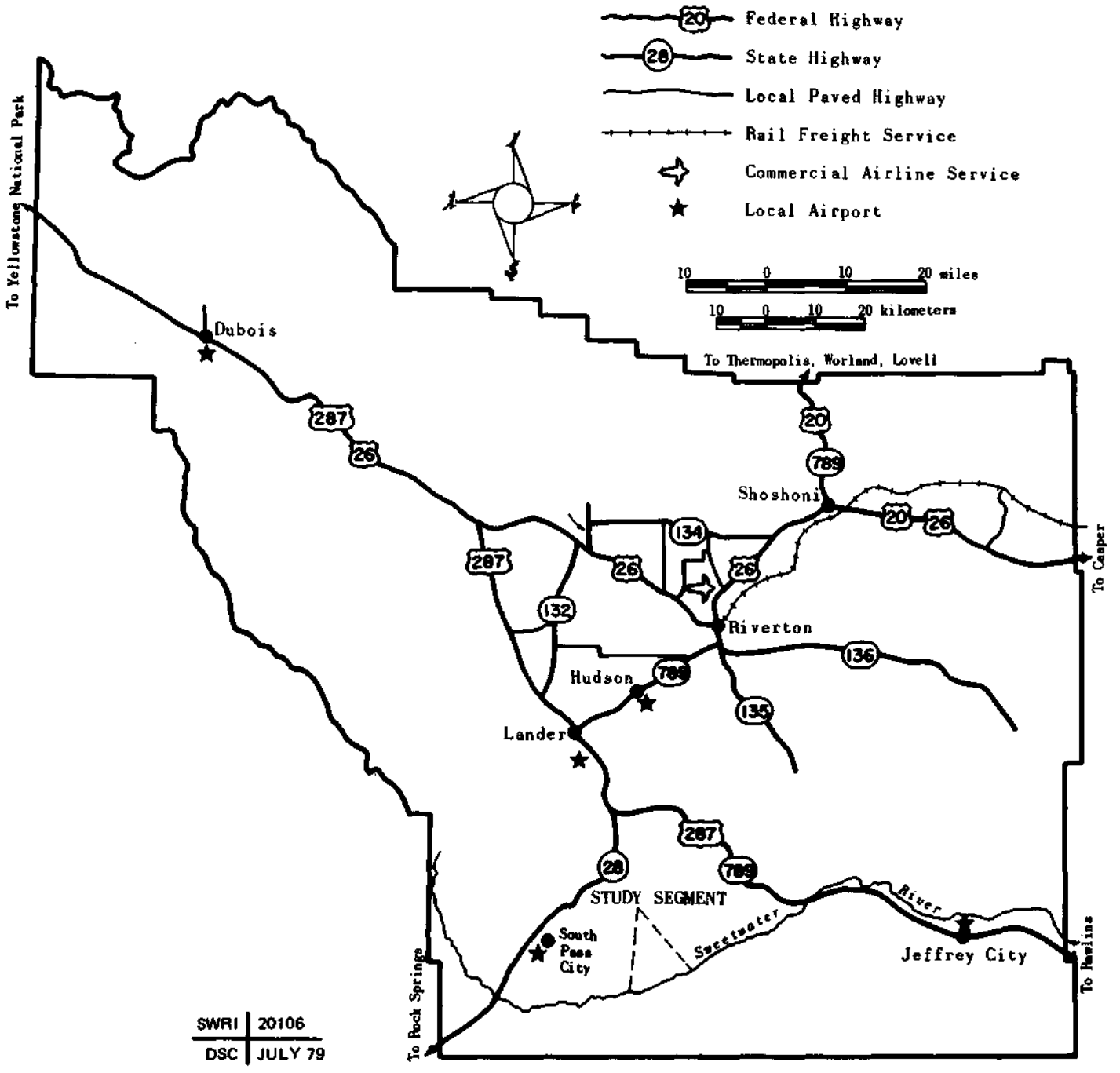
U. S. Highway 287 passes through Fremont County and leads to Yellowstone and Grand Teton National Parks. Interstate 80, a major east-west route parallels the southern border of Wyoming and passes within 50 miles of the Fremont County line. The county is also served by Federal highways 20 and 26. State highways include 28, 132, 133, 134, 135, 136, and 789, as shown in figure II-11.

Road access into and through the Wind River Mountains is limited. Most roads run north and south and skirt the range rather than cut directly east or west across it. The rest of the county is served by a network of county, Bureau of Land Management, Forest Service, and private roads. Most are either unpaved all-weather or unimproved dirt roads.

Regularly scheduled airline service is available only at Riverton. These flights connect with other Wyoming cities and with two major regional transportation hubs, Denver and Salt Lake City. Small planes can land at airports or landing strips in Lander, Dubois, Jeffrey City, South Pass City, and Shoshoni.

Figure II-11

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING
Transportation



There is regular passenger bus service to Jeffrey City, Lander, Hudson, Riverton, and Shoshoni. Rail freight service is provided to Riverton by the Chicago and Northwestern Transportation Company, as shown in figure II-11.

K. LAND OWNERSHIP AND USE

Land Ownership

Most of the land is publicly owned, with the Forest Service and the Bureau of Land Management controlling more than 50 percent of the acreage. Approximately 27.6 percent of the county is owned by the Wind River Indian Reservation and 13.6 percent is under other private ownership. A breakdown of land ownership is given in table II-4 and figure II-12.

TABLE II-4

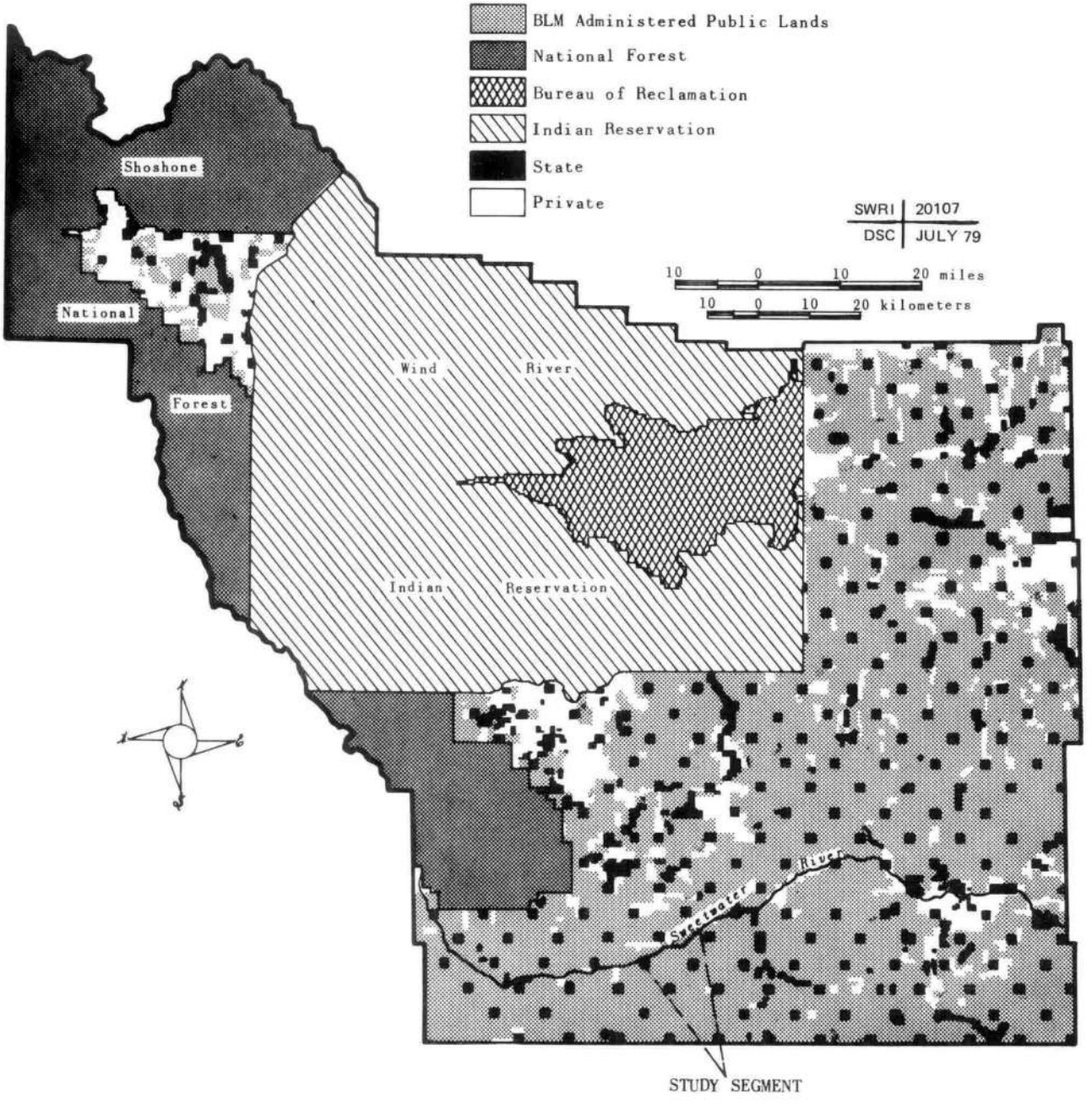
LAND OWNERSHIP
Fremont County, Wyoming

Ownership	Acres	Square km	Percent of Total
Wind River Indian Reservation	1,640,020	6,637	27.6
Other Private	808,782	3,273	13.6
State, County, and Local Governments	260,565	1,054	4.4
Bureau of Land Management	2,116,143	8,564	35.7
Forest Service	853,830	3,455	14.4
Bureau of Reclamation	165,245	669	2.8
Other Agencies	40,913	166	0.7
Major Water Surface	44,740	181	0.8
TOTAL	5,930,238	23,999	100.0

Figure II-12

SWEETWATER WILD AND SCENIC RIVERS STUDY
FREMONT COUNTY, WYOMING

Land Ownership



Land Use

Most of the land in Fremont County is undeveloped, with hundreds of square miles remaining in a natural state or used only for livestock grazing, as shown in table II-5. The outward physical signs of agriculture are very limited since only a small percent of the land is actually irrigated. The most intensive agricultural activity is in the heart of the county near Riverton and Lander and in the Wind River Basin.

TABLE II-5

LAND USE
Fremont County, Wyoming

Use	Acres	Square km	Percent of Total
Noncrop Land	3,151,002	12,752	53
Urban	44,620	181	1
Small water areas	18,810	76	*
Other water areas	44,740	181	1
Crop Land			
Irrigated	208,466	844	4
Nonirrigated	5,616	23	*
Pasture	7,435	30	*
Range	2,209,237	8,940	37
Forest			
Commercial	113,220	458	2
Noncommercial	120,385	487	2
Mining	1,500	6	*
Other	5,207	21	*
TOTAL	5,930,238	23,999	100

*Substantially less than 1 percent of the total area.

Population concentrations and the greatest amount of urban land use are near Riverton and Lander and in the Wind River Basin. Of the total land area, only 0.74 percent is devoted to urban uses such as residential, commercial, public, and industrial, while 0.03 percent is used for mining.

About 4 percent of the land is forested, mostly along the county's western border or in the extreme northwestern corner.

L. RECREATION

The Forest Service administers two national forests, Bridger-Teton and Shoshone, within which are 13 developed recreational areas. The Forest Service also administers Washakie, Fitzpatrick, Teton, and Bridger Wilderness Areas and Glacier and Popo Agie Primitive Areas. The Bureau of Land Management administers six developed recreation areas.

The Wyoming Game and Fish Department maintains one undeveloped and four developed recreation areas in Fremont County. In addition to Boysen and Sinks Canyon State Parks, the Wyoming Recreation Commission administers a developed recreation area at the South Pass Historic Preserve. In addition to numerous private facilities, there are several developed recreation areas administered by municipalities. A summary of recreation areas by ownership and activities, derived from An Outdoor Recreation Plan for Wyoming, 1975, appears in table II-6. Locations are shown in figure II-13.

Recreation activities include boating and canoeing, camping, driving for pleasure, fishing, hiking and backpacking, mountaineering, rock collecting, golfing and tennis, horseback riding, hunting, picnicking, swimming, ice skating, sledding, snowmobiling, and snowskiing. Because of the heavy tourist traffic en route to Yellowstone and Grand Teton National Parks and since the resident population is low (fewer than 30,000), the majority of the total participation in recreational activities during the summer months is attributable to nonresidents. Estimates and projections of recreation participation are shown in table II-7.

The many high-altitude mountain lakes and reservoirs and a multitude of rivers and streams provide excellent cold water fishing. There is also good warm water fishing at Boysen Reservoir and Ocean Lake. Species available to the angler are discussed in the fish and wildlife section.

Hunting is good to excellent. In 1975 about 1,700 sportsmen hunted antelope, 5,400 hunted deer, 6,400 hunted elk and bear, and 10 hunted moose. Excellent sage grouse hunting is available in addition to small game hunting for partridge and cottontail rabbit. Some waterfowl and predators are also hunted.

Numerous trails used by off-road vehicles are located on BLM-administered public land and Forest Service areas. These support four-wheel-drive traffic, snowmobiles, and cross-country skiing. Many trails suitable for hiking and horseback riding are also available, especially within the two national forests and on BLM-administered public land.

TABLE II-6

DEVELOPED RECREATION AREAS
Fremont County, Wyoming

Area	Activities				
	Camping	Picnicking	Boating	Swimming	Fishing
U. S. Forest Service					
Sinks Canyon	X	X			X
Dickinson Creek	X	X			X
Fiddlers Lake Campground	X	X	X		X
Popo Agie	X	X			X
Louis Lake	X	X	X		X
Falls	X	X			X
Brooks Lake	X	X	X		X
Horse Creek	X	X			X
Double Cabin	X	X			X
Fiddlers Lake Picnic Ground	X	X	X		X
Louis Beach	X	X	X		X
Bruce	X	X			X
Wind River Lake		X			X
Bureau of Land Management					
Atlantic City	X	X			X
Big Atlantic Gulch	X	X			X
Cottonwood	X	X			X
Wild Horse Point		X			
Castle Gardens Archeological Site		X			
Split Rock Historical Site		X			
Wyoming Game and Fish Department					
Ring Lake	X	X			X
Trail Lake	X	X			X
East Fork	X	X			X
East Side of Ocean Lake	X	X		X	X
Wyoming Recreation Commission					
Boysen Reservoir	X	X	X	X	X
South Pass Historic Preserve		X			
Sinks Canyon State Park	X	X			

TABLE II-6 (continued)

DEVELOPED RECREATION AREAS
Fremont County, Wyoming

Area	Activities				
	Camping	Picnicking	Boating	Swimming	Fishing
Municipal					
Riverton City Campground	X	X			
Riverton Picnic Ground		X			
Riverton Picnic Ground		X			
Riverton Picnic Ground		X			
Lander City Park	X	X		X	X
Shoshoni City Park	X	X	X	X	X
Jeffrey City		X			
Private					
KOA Lander	X				
KOA Riverton	X				
Wind River Ranch Dubois	X	X		X	X
Taft Ranch Campsites	X	X			X
Stalnaker's Trailer Park and Campground	X	X			
Rudy's Camper Court	X	X			
Circle-Up Camper Court	X	X			
Rawhide KOA	X	X			
Lava Creek Campground	X	X			X
Bill's Campground	X				
Maverick Mobile Home Park	X	X		X	X
Lakeside Resort	X	X	X	X	X
River Campground	X			X	X
Riverside Trailer Park	X				
Rocky Acres Campground	X	X			

Figure II-13

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Developed Recreation Areas

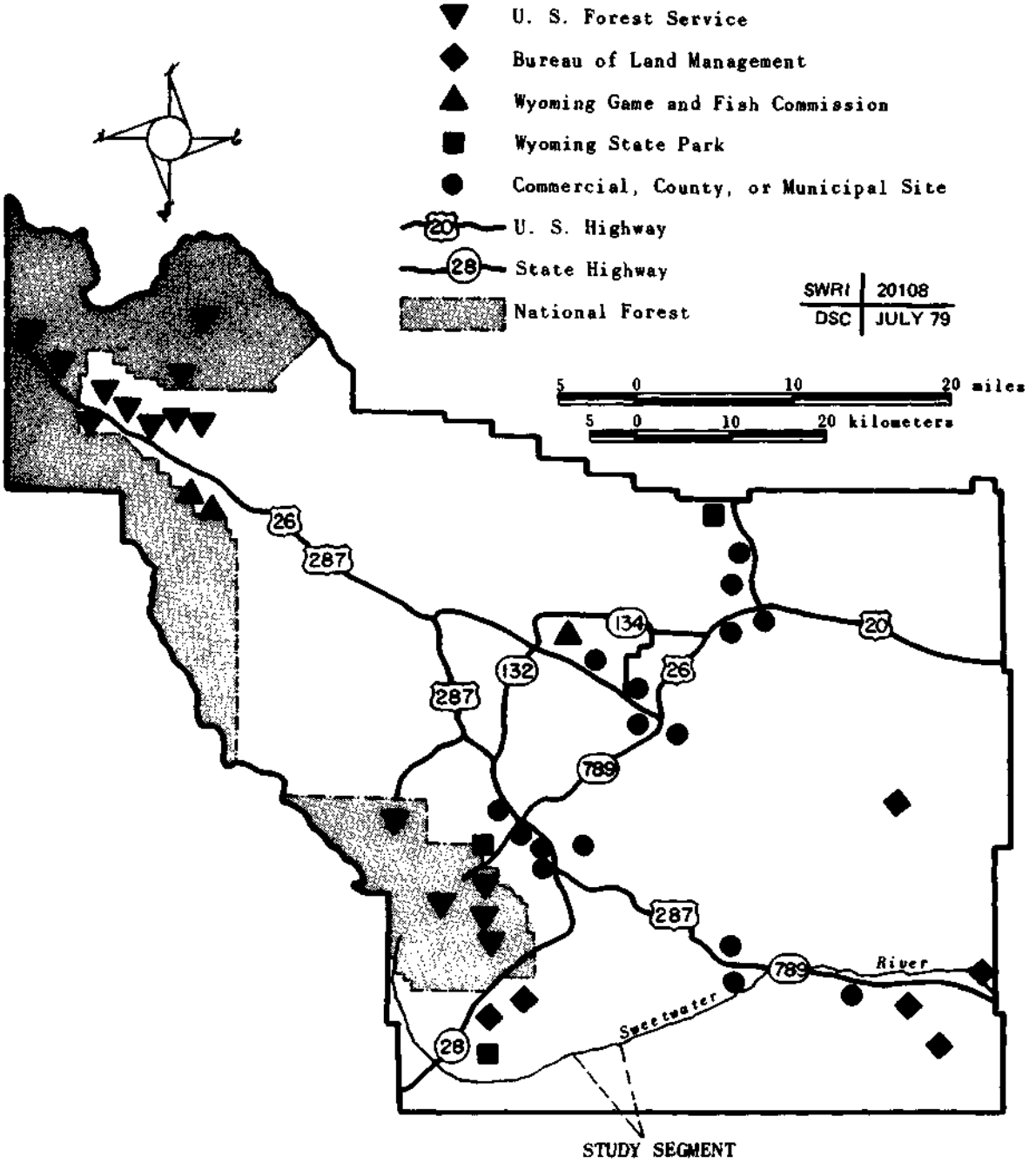


TABLE II-7

ESTIMATED TOTAL RECREATION PARTICIPATION
Fremont County, Wyoming

Activity	Visitor Days[1] 1970	1990	Projected Percent Increase
Boating and Canoeing	69,019	105,447	53
Attending Athletic Events	43,345	99,611	130
Camping	181,836	271,781	49
Fishing	359,715	524,479	46
Golfing	37,068	141,972	283
Hiking	142,787	214,036	50
Softball and Baseball	42,665	75,262	76
Swimming	123,445	205,046	66
Sightseeing and Pleasure Driving	181,997	340,652	87
Skiing	23,927	84,383	253
Picnicking	71,844	117,053	63
Rodeos	41,205	60,288	46
Hunting	70,418	95,853	36
Ice Skating	17,312	30,431	76
Water Skiing	23,588	34,913	48
Tennis	10,062	17,867	78
Sledding and Tobogganing	7,246	12,738	76
Snowmobiling	22,300	53,785	141

[1]A visitor day is defined as 12 visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Rockhounding and gem-mineral collecting are popular activities. Jade, agates, and petrified wood are popular attractions in the area west of Jeffrey City.

The county has long been a favorite hunting ground for artifact collectors. The Antiquities Act, P. L. 209, dated June 8, 1906, makes it illegal to remove artifacts from public lands; nevertheless, many local collectors have amassed large collections from archeological sites not far from the study area.

Although most picnicking and camping is done at developed sites, some of this activity takes place in association with river and trail use as a dispersed type of recreational activity throughout the county.

Major winter sports activities are skiing and snowmobiling. Mountain areas support snowmobiling and cross-country skiing into late spring. Most winter sport participants are local residents.

M. CULTURAL RESOURCES

Archeology

Many significant Indian occupancy sites are present throughout the county. Amateurs have reported 425 sites to the office of the Wyoming State Archeologists, and many more probably exist. Pictographs, petroglyphs, tipi rings, fire rings, arrowheads, and other artifacts can be found at many sites.

The Wyoming State Archeologist describes the sequence of prehistoric archeologic events for the area in terms of five eras. Man seems to have appeared in the region over 11,000 years ago to usher in the first era, the Paleo-Indian Period. Fully developed Homo sapiens, the men of this era possessed an advanced level of stone technology.

The Early Plains Archaic Period began 7,500 years ago and seems to have been a long, warm, climatic episode of low rainfall. The Early Period coincided with a cultural hiatus over much of the Plains. During the Middle Plains Archaic Period, which began 5,000 years ago, an increase in the use of the interior basins for crop growing accompanied a rapid increase in the population. The Late Plains Archaic Period, beginning about 3,000 years ago, was essentially the same as the previous period except for a change in spear-point design. An increase in archeological sites from this period is noted.

The Late Prehistoric Period began about 1,700 years ago and ended about 300 years ago with the Contact Period when European influence began to be felt. During the Late Prehistoric Period, the bow and arrow and pottery were introduced into the area.

Castle Gardens Petroglyph Site, one of the best known archeological sites in the area, is located in the eastern part of Fremont County. Listed in the National Register of Historic Places, 1976, as shown in appendix B, the site is maintained by the Bureau of Land Management. The site has numerous drawings that extensively use circular shield motifs and include several figures of water turtles. The use of non-native turtles suggests a cult that spread west of the Missouri and Mississippi Rivers, probably in the Late Prehistoric Period.

There are also many historic archeological sites that were established since European contact. Many of these are one-time occupation sites which are of increasing importance in analyzing the normal routines of Indian culture.

History

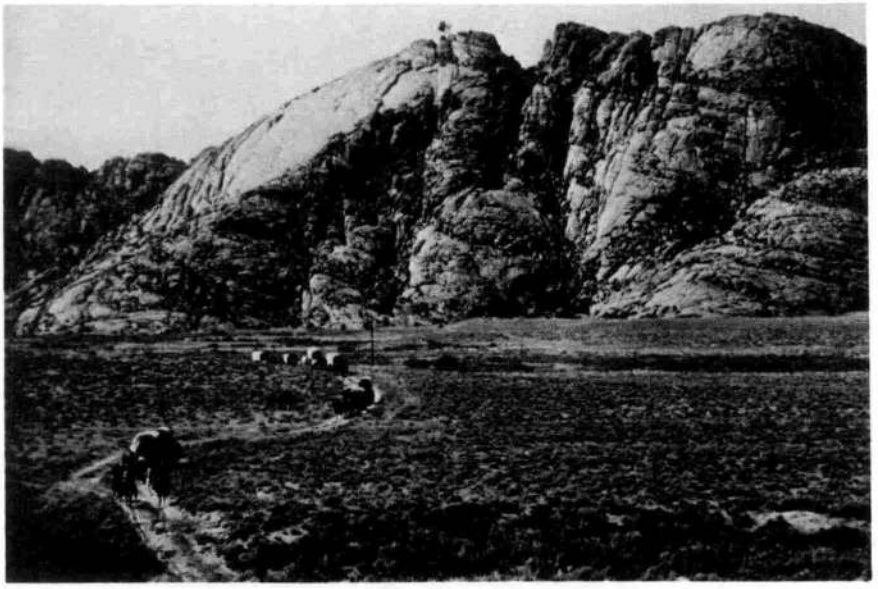
John Colter, a member of the Lewis and Clark Expedition and the first explorer of the Yellowstone River area, was the first white man believed to have entered Fremont County. He probably first entered during the winter of 1807-08 while trying to locate Indian tribes who might trade furs. Trappers later came into the areas until the War of 1812 temporarily halted activity.

Wilson Price Hunt, early frontiersman, led his party on its way to Astoria, Oregon, across present Fremont County in 1811. In 1812 the returning Astorians, under Robert Stuart, first found a route that was to become a part of the Oregon Trail, by traveling eastward through South Pass, and down the Sweetwater and Platte Rivers.

In 1824 a party of General Ashley's men, led by Jedediah Smith and including Bill Sublette, Jim Clyman, and Tom Fitzpatrick, rediscovered South Pass, and the area became a center for fur trappers. Among the trappers and hunters to later frequent the area were Jim Bridger, Jack Robinson, Kit Carson, the La Jennesse Brothers, and Papin and Company.

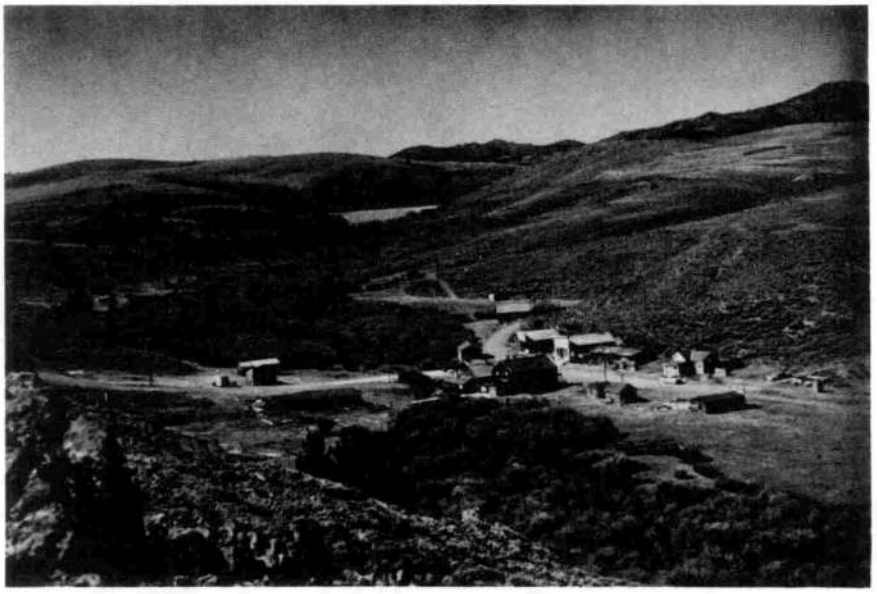
In 1832 Captain Benjamin Bonneville led the first wagon train, composed of 110 trappers, over South Pass. However, the importance of this broad, easy, level route over the Continental Divide was not fully realized until the Oregon country opened for settlement and the rush for California gold brought a tide of immigrants across the Oregon and Mormon Trails.

The county bears the name of the early-day pathfinder and explorer of the West, Captain John C. Fremont. Fremont explored and mapped the Wind River Basin for the U. S. Government in the middle years of the century, and crossed South Pass in 1842.



To commemorate the Bicentennial, a group of wagons follows the Oregon Trail past Split Rock.

Castle Gardens Petroglyph Site is on the *National Register of Historic Places*.



Historically rich South Pass City is being protected by the State of Wyoming.

When gold was discovered in California, an expedition was detailed in 1857 to build a road north of South Pass from the Burnt Ranch on the Sweetwater River to Fort Hall. Colonel F. W. Lander was in charge of the expedition. Later a settlement called "Push Root" was renamed after Lander.

Ten years later, South Pass's own gold rush started. Gold had been reported in the area as early as 1842, but hostile Indians hampered earlier prospectors. During the winter of 1866-67 a party of eight prospectors established a camp on Willow Creek. By spring they had supposedly recovered some $15,000 worth of gold. News of their success brought thousands to South Pass. The following year South Pass City boasted a population of 4,000, and in 1870 as much as $5,000,000 in gold may have been taken from this district.

During its heyday, South Pass City also gained fame as the home of Esther Hobart Morris, who promoted the cause of equal rights for women. Mrs. Morris was instrumental in making Wyoming Territory the first government in the Nation to grant women equal suffrage in 1869. In 1870 Mrs. Morris became the first female Justice of the Peace in the country.

In 1868 the Shoshone Indians were given land for a reservation by the Treaty of Fort Bridger. Sacajawea, a member of the Lewis and Clark Expedition, was a Shoshone Indian from the area and is said to have been buried on the Wind River Reservation.

Chief Washakie, who befriended the white man in the area and whose strong leadership accounted for a distinguished relationship between his people and the United States, lived on the reservation until his death in 1900.

When the government built forts and camps to protect the Shoshones from raids by the Sioux, Arapaho, and Cheyenne Tribes and when a treaty reduced the size of the Indian reservation, homesteaders flocked to the area.

Fort Washakie was so designated December 30, 1878, having been founded as Camp Brown in January 1871. It is now headquarters of the Wind River Reservation, the home of the Shoshone and Arapaho Tribes.

On March 5, 1884, Fremont County was created, and Lander was made the county seat. Stemming from the original Carter County, the name of which was later changed to Sweetwater, Fremont County was cut from the northern part of the old Sweetwater County. During the same year, the first productive oil well west of the Mississippi was drilled near Lander.

Riverton, the county's largest city, was not founded until 1906, when land adjacent to the townsite opened for homesteading under a private irrigation project. Also in 1906 the coal industry around Hudson began booming with the completion of the Chicago and Northwestern Railroad.

Until the Taylor Grazing Act was passed in 1934, the area north of Beaver Rim was primarily used by sheep operators, and the area south of the rim to the Red Desert was used by cattle operators. Since then there has been a gradual shift to cattle as the primary livestock.

In 1953 uranium was discovered near Jeffrey City in the eastern part of the county and mining operations began. In the late fifties, iron was discovered near Atlantic City; mining began in 1962.

The seven sites listed in the National Register of Historic Places, 1976, and the three sites that have been nominated for enrollment are shown in appendix B.

CHAPTER III

RIVER SETTING

A. INTRODUCTION

The river setting focuses on the river corridor. This is generally within one-quarter mile of either side of the Sweetwater River or to the line of sight from the river, whichever is the least. However, for accuracy of data, it was necessary to discuss categories such as geology and water resources on a broader scope.

B. RIVERSCAPE AND LANDFORM

South and east of the Wind River Mountains, the Sweetwater River has cut through a spur of the mountains into the high plains desert to create a winding canyon known as "Sweetwater Canyon." The section of the Sweetwater River through this canyon is the 9.5-mile-long (15.3-km-long) river segment which is the subject of this study.

The study area begins at Wilson Bar, Sec. 16, T.28N., R.98W., elevation 7,150 feet (2,177 m). Wilson Bar is about 15 road miles (24 km) southeast of Atlantic City. Six tributaries -- Granite, Strawberry, Mormon, Willow, Chimney, and Spring Creeks, shown in figure III-1 -- empty into the Sweetwater within the study area boundaries. The elevation of the downstream boundary of the study area, Spring Creek, Sec. 34, T.29N., R.97W., is 6,720 feet (2,048 m). Over the 9.5-mile (15.3-km) length, the river drops 430 feet (131 m) or an average of about 45 feet per mile (9 m per km).

The average width of the river is 35-40 feet (11-12 m). It is narrower within the deepest part of the canyon and slightly wider at both the upper and lower ends.

With the exception of a dilapidated mine entrance just inside the study boundary near Wilson Bar and a four-wheel-drive road at Strawberry Creek, there are no structures or other evidences of man's presence. The locations of both are shown in figure III-1.

The narrow floor of the canyon provides little in the way of a flood plain. However, there is a very small alluvial valley at Wilson Bar and a wider one near the lower end of the canyon at Chimney and Spring Creeks.

The Sweetwater first flows through an alluvial valley with low banks covered by riparian vegetation or sagebrush and grass. It then enters a canyon dotted with a mixture of aspen and conifers. Toward the downstream end the valley broadens again, and the river begins to meander once more.

Access within the canyon is limited and there are only a few roads along the rim. The river study area contains about 2 miles (3.2 km) of primitive roads. One runs north and south and fords at Strawberry Creek, as shown in figure III-1. Another parallels a portion of Chimney and Spring Creeks and the Sweetwater for about a mile (1.6 km) in the downstream end.

Access to the river area is generally available during the summer months from either side of the canyon by way of unimproved dirt roads, many of which cross private land. Due to muddiness, steepness, roughness, or light snow cover, four-wheel-drive vehicles are recommended and often required. During most of the winter, the area is inaccessible because of drifting snow.

The dirt roads connect to the Bureau of Land Management Atlantic City - Hudson Road about 3.5 miles (5.6 km) north of the canyon, as shown in figure III-1. The Atlantic City - Hudson Road connects with State Highway 28 in the South Pass City area and with U. S. Highway 287 on Beaver Rim. These two paved highways constitute the major transportation routes in this part of Fremont County. The canyon lies about 47 road miles (76 km) south-southeast of Lander by way of either of these two highways.

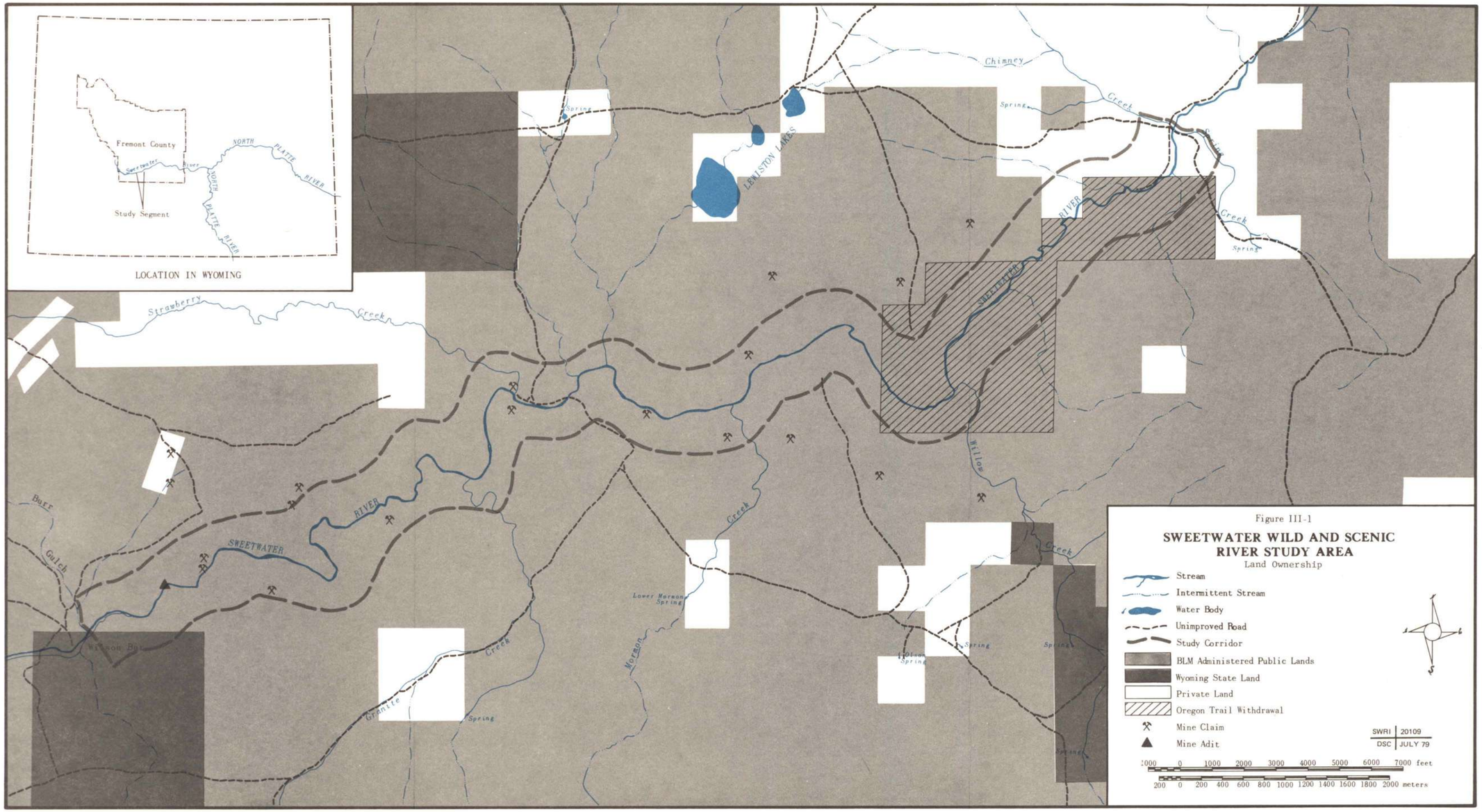
C. GEOLOGY AND MINERALS

Geology

The Sweetwater Wild and Scenic River Study area is located along the southeastern flank of the Wind River Range, a large northwest trending, highly dissected anticlinal uplift some 120 miles (193 km) long and 30-50 miles (48-80 km) wide. It is the largest discrete mountainous mass in Wyoming. Like most of the other mountain ranges in the State, the Wind River Range was uplifted during the Laramide Revolution, apparently as the result of movement along a west-flank thrust fault which tilted the entire mountain block to the east. Subsequent glacial erosion modified the mountain range to its present rugged profile.

The geology of the Wind River Range in the general vicinity of the Sweetwater Canyon is somewhat complex. In general, this area is depicted as an island of Precambrian metasedimentary and metavolcanic rock some 3+ billion years old, surrounded by younger granitic rocks and intruded by a number of dikes and sills, largely mafic in composition.

The Sweetwater Wild and Scenic River Study area centers around a scenic canyon up to 500 feet (152 m) deep. Some 95 percent of the area is covered by a thick sequence of Precambrian rocks, with the remainder covered by a thin deposit of Tertiary pediment gravels and Quaternary alluvium.


Fremont County
Sweetwater River
NORTH PLATTE RIVER
Study Segment
NORTH PLATTE RIVER
LOCATION IN WYOMING
Strawberry Creek
Chimney Spring
Creek
LEWISTON LAKES
Spring
RIVER
Creek
Spring
SWEETWATER
Willow
Creek
Buff Gulch
SWEETWATER
RIVER
Creek
Lower Mormon Spring
Mormon
Creek
Granite
Spring
Spring
Spring
Spring
Figure III-1
SWEETWATER WILD AND SCENIC RIVER STUDY AREA
Land Ownership
Stream
Intermittent Stream
Water Body
Unimproved Road
Study Corridor
BLM Administered Public Lands
Wyoming State Land
Private Land
Oregon Trail Withdrawal
Mine Claim
Mine Adit
SWRI 20109
DSC JULY 79
1000 0 1000 2000 3000 4000 5000 6000 7000 feet
200 0 200 400 600 800 1000 1200 1400 1600 1800 2000 meters

The Precambrian rocks fall into two categories--metamorphic and granitic. The granites are confined mainly to the area from Strawberry Creek to just west of Chimney Creek and are essentially unaltered pink and grey variety, with very few igneous intrusions. The only significant intrusion is a white pegmatite that occurs near the eastern bank of Strawberry Creek. The metamorphic rocks, found from Strawberry Creek to the end of the canyon, are predominantly schists and micro-crystalline hornfels, intruded by a number of dikes, predominantly mafic in composition. They are highly deformed and sheared and appear to follow a strong north-northwest trending shear zone.

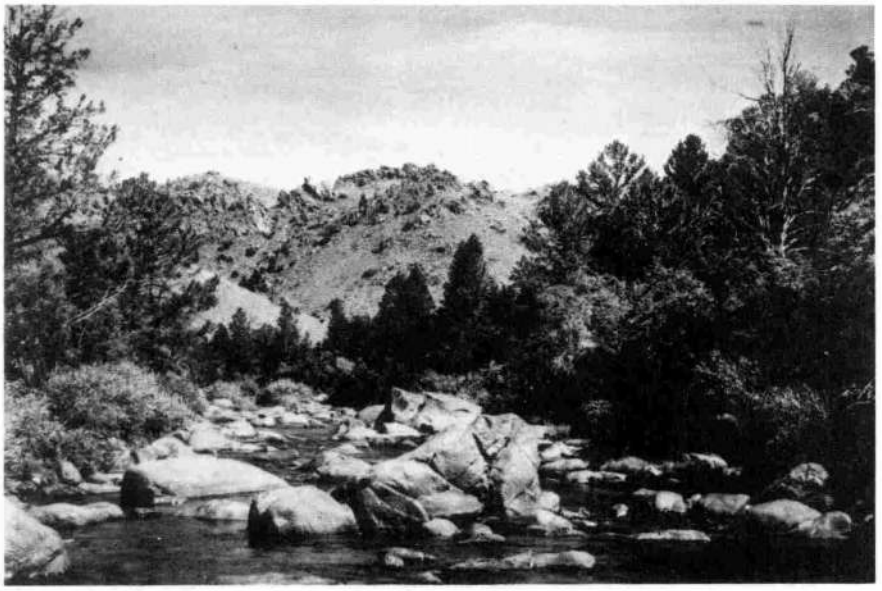
There appears to have been a period of deformation that occurred during the Laramide Revolution when the Wind River Range was being formed. As a result of this tectonic activity, all the rocks are highly fractured and steeply dipping (ranging from 45° to vertical) in a northeasterly direction. The tilting of the rocks was probably a contributing factor in the formation of Sweetwater Canyon; it tended to confine the lateral erosion of the Sweetwater River and directed the cutting action downward, since rocks are more easily eroded parallel to zones of weakness than across.

The Quaternary alluvium is confined almost exclusively to the Sweetwater River and three major tributaries--Strawberry, Granite, and Willow Creeks. The alluvial material consists largely of medium-grained gravel and medium- to fine-grained sand, up to about 10 feet (3 m) in thickness. It is composed of a fairly diverse assemblage of rocks and minerals; i.e., granite and metamorphic rock chips, quartz, garnets, zircon, magnetite, hematite, and scheelite. The Tertiary pediment gravels are thin residual deposits, derived from the older Precambrian rocks, with no indication of mineralization.

Minerals

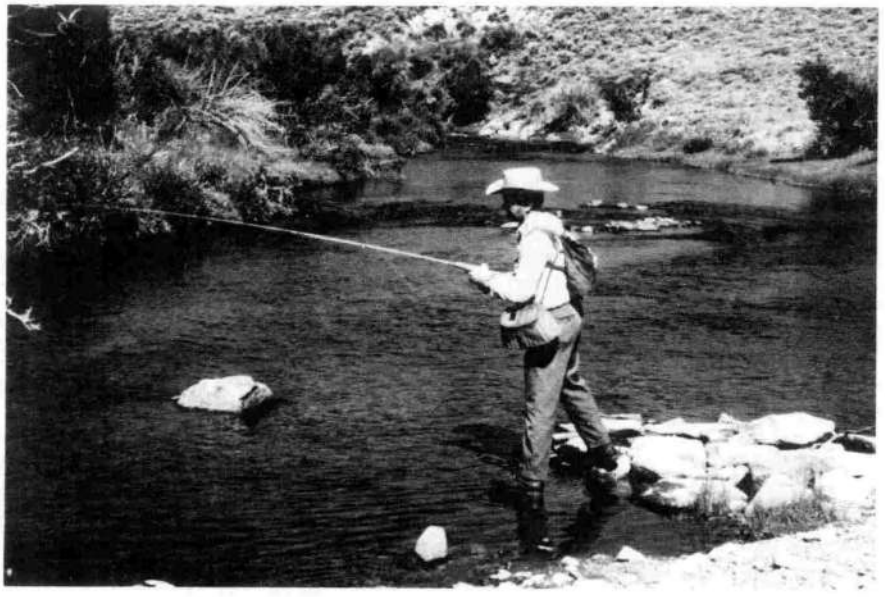
Based on field examinations, research on the geology and mining history, and laboratory results of mineral analysis, the wild and scenic river study area appears to have little potential for the discovery of commercial mineral deposits. Exploration in the immediate vicinity has been conducted for jade, uranium, and tungsten. Tungsten, in the form of very low grade sheelite ($CaWO_4$) is found in the canyon and in the surrounding area. Iron is present throughout the general vicinity, but no concentrations of ore grade iron were found. Neither uranium ore bodies nor any significant uranium mineralization has been found in the general vicinity of the canyon.

There is no record of any mineral production either from placer or lode operation. A gold dredging operation once took place at Wilson Bar, upstream from the study area, but closed down in 1943.



Sweetwater Canyon remains virtually untouched by man.

Antelope are abundant in the area.



The river offers good brown and rainbow trout fishing.

The majority of the mining claims in the area are considered to have been abandoned since most of them were not worked and assessment work was usually never filed. The Mary Ann claims (uranium, jade, and tungsten) which are located near Strawberry and Granite Creeks and the Lone Pine claims located near Wilson Bar are the only exceptions.

Limited access, combined with a small area of occurrence and little demand, serves to make sand and gravel extraction within the canyon economically impractical. In addition, the presence of gas or oil is unlikely because the sedimentary rock formation in which petroleum deposits are usually found do not occur in the vicinity.

D. SOILS

The following description of the soil resources and their behavior is based on limited on-site information and from the Soil Conservation Service's report on Wyoming soils. Most of the land is publicly owned and has not been surveyed by the Soil Conservation Service.

The soils adjacent to the Sweetwater Canyon are of soil association 3, as shown in figure II-4. Topography is rolling to steep; soils are developing in residuum and transported materials from igneous bedrocks. This association consists mainly of the shallow Lithic Cryoborolls and the very deep Typic Cryoborolls, both of which have grass-shrub cover and rock outcrops.

The Lithic Cryoborolls are represented by the series Irigul, a channery loam. The Irigul series composes 40 percent of the association, has an igneous parent material, and is generally 10 to 20 inches (25 to 51 cm) in depth. The Typic Cryoborolls are represented by the Handran series, a channery loam, and the Leavitt series, a loam. The Handran series composes 30 percent of the association, and the Leavitt composes 10 percent. Both have an alluvium parent material and are approximately 60 inches (152 cm) in depth. The remaining 10 percent of the association is rock outcrop.

Generally, this soil association is moderately permeable and has only a slight wind erosion hazard. However, the water erosion hazard can range from slight to severe. This association, therefore, has severe limitations on all agricultural use and moderate to severe limitations on other types of development. The vegetation on this soil association is predominantly grass-shrub with scattered areas of forest. Grazing and wildlife habitat are the principal uses.

The soils within Sweetwater Canyon itself are developing in residuum and are quite shallow, averaging approximately 6 inches (15 cm) in depth. The soil is coarse-textured and moderately permeable, with a severe water erosion hazard that limits development of any kind.

The coarse sand and gravel of the narrow sandbars, alluvial fans, and colluvial deposits are present primarily on the canyon floor and along some of the larger tributaries. The steep slope of the numerous small drainages which feed the Sweetwater seems to have prevented the accumulation of this material.

E. VEGETATION

The vegetation is typical of the high plains desert and mountain foothills of central and southern Wyoming, consisting mostly of native grasses and shrubs with small pockets of trees on the canyon slopes, down the small drainages, and along the riverbank.

The study area has three major vegetation types. The first is the sagebrush-grass association, located primarily along the top of the canyon rim and on the south-facing canyon slopes. Representative species include big sagebrush, black sagebrush, rabbitbrush, bitterbrush, wheatgrass, blue grama, and bluegrass. The second type is the mixed conifer association which includes such species as the limber pine, lodgepole pine, and aspen. There are pockets of mixed conifers in the deepest part of the canyon and on the canyon slopes having a northern exposure. The third type is the alluvial or river bottom association which roughly parallels the river. In this zone are such water-loving species as the willow, birch, and cottonwood.

Wildflowers such as phlox, lupine, dandelions, shooting stars, and Indian paintbrush brighten the canyon with color during the spring, summer, and fall.

There are no threatened or endangered plant species known to exist in the canyon. However, four species listed in appendix C, table C-2 may exist in the corridor and are proposed or under consideration for possible threatened or endangered species status.

Major trees, shrubs, grasses, forbs, and wildflowers in the canyon are listed in appendix C.

F. FISH AND WILDLIFE

A variety of fish and wildlife is supported by the Sweetwater River as it winds through Sweetwater Canyon. Much of the habitat is unaffected by human development; low visitation further enhances its value for wildlife.

The Bureau of Land Management manages wildlife habitat on public lands, and the Wyoming Game and Fish Department is responsible for the management of wildlife populations and enforcement of State hunting laws.

Fish

The trout fishery in the Sweetwater River from Wilson Bar to Spring Creek consists of natural reproducing brown and rainbow trout. Other species of fish present in this section of stream include the white sucker, longnose sucker, mountain sucker, longnose dace, and lake chub.

The Wyoming Game and Fish Department surveyed three sections of the stream segment in 1973. The trout population was considered good and was estimated at approximately 333 trout per mile (207 trout per km) of stream. Trout species composition consisted of 68 percent brown trout and 32 percent rainbow trout.

The study segment was stocked with advanced fingerling rainbow trout in 1971 and advanced fingerling brown trout in 1972. This is the only recorded stocking and was made as a supplement to the existing natural trout fishery.

A stream habitat survey conducted in August 1975 by the Bureau of Land Management staff biologists rated the river, based on the pool-riffle relationship and the quality and quantity of pools. A good rating was recorded for 8.8 miles (14 km) of stream, and a fair rating was recorded on the remaining 0.7 miles (1 km) on the upper portion of the river near Wilson Bar.

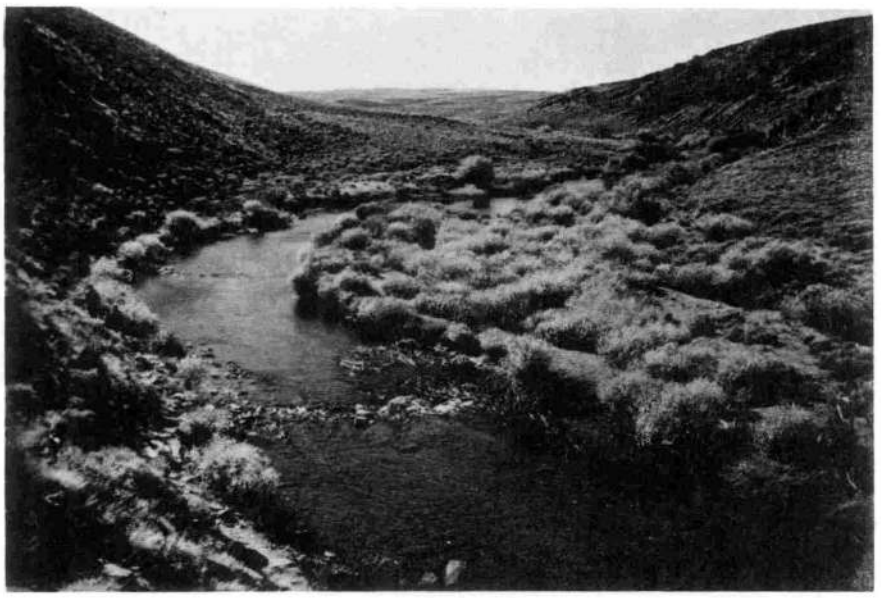
The river was also evaluated for stability, which is the resistance of the channel and banks to erosion and deterioration. Stability ratings ranged from 56 (good) to 85 (fair). Wilson Bar downstream to Strawberry Creek received a stability rating of 78 (fair). The middle part of the canyon, Strawberry Creek downstream to Willow Creek, had an average stability rating of 68 (good). The segment from Willow Creek to the mouth of the canyon received a rating of 84 (fair).

According to the Wyoming Game and Fish Department, a lack of nutrients is a factor limiting the trout population in the Sweetwater River.

There are no threatened or endangered fish species known to exist in the Sweetwater River drainage.

Wildlife

Approximately 30-50 antelope inhabit the rim country on either side of the Sweetwater Canyon. Wet meadows in and adjacent to the canyon provide forage during the spring, summer, and fall; the herds winter on the desert south of the canyon.



Sweetwater Canyon opens onto the surrounding high plains desert.

Moose can often be found in the canyon.

The Sweetwater River in the vicinity of Strawberry Creek

Forty to sixty mule deer use the canyon as year-long range. Summer habitat is provided by the wet meadows in and adjacent to the canyon. Browse vegetative species such as black sage, silver sage, and squawberry are present on the south and west facing slopes and provide deer with important winter forage.

As many as a dozen moose also winter in the canyon, feeding primarily on the willows along the river. Some of these moose can be found in the canyon throughout the year. The density and productivity of these willow stands are the two major factors limiting the size of the Sweetwater moose herd. Elk may occasionally use the canyon during the winter months but usually remain at higher elevations.

The lands also furnish limited habitat for sage grouse, a widely hunted small game species. Mallards, pintails, green-winged teals, and the common merganser nest in the canyon and use it on their migratory flights south over the central flyway. However, the ducks cannot winter in the canyon because the river usually freezes over.

Habitat for golden eagles, prairie falcons, and hawks exists in the canyon. One prairie falcon nesting site has been identified. In addition, the upland plover, poorwills, belted kingfisher, red shafted flicker, horned lark, and violet green swallow are among the many species that have been sighted.

Numerous other mammals, reptiles, and amphibians live in the canyon. A list of species known or thought to exist in the area is given in appendix C.

The endangered American peregrine falcon (Falco peregrinus anatum), bald eagle (Haliaeetus leucocephalus), and black-footed ferret (Mustela nigripes) may be occasional visitors to the canyon area, although there have been no documented sightings of these species.

G. WATER

Surface Water

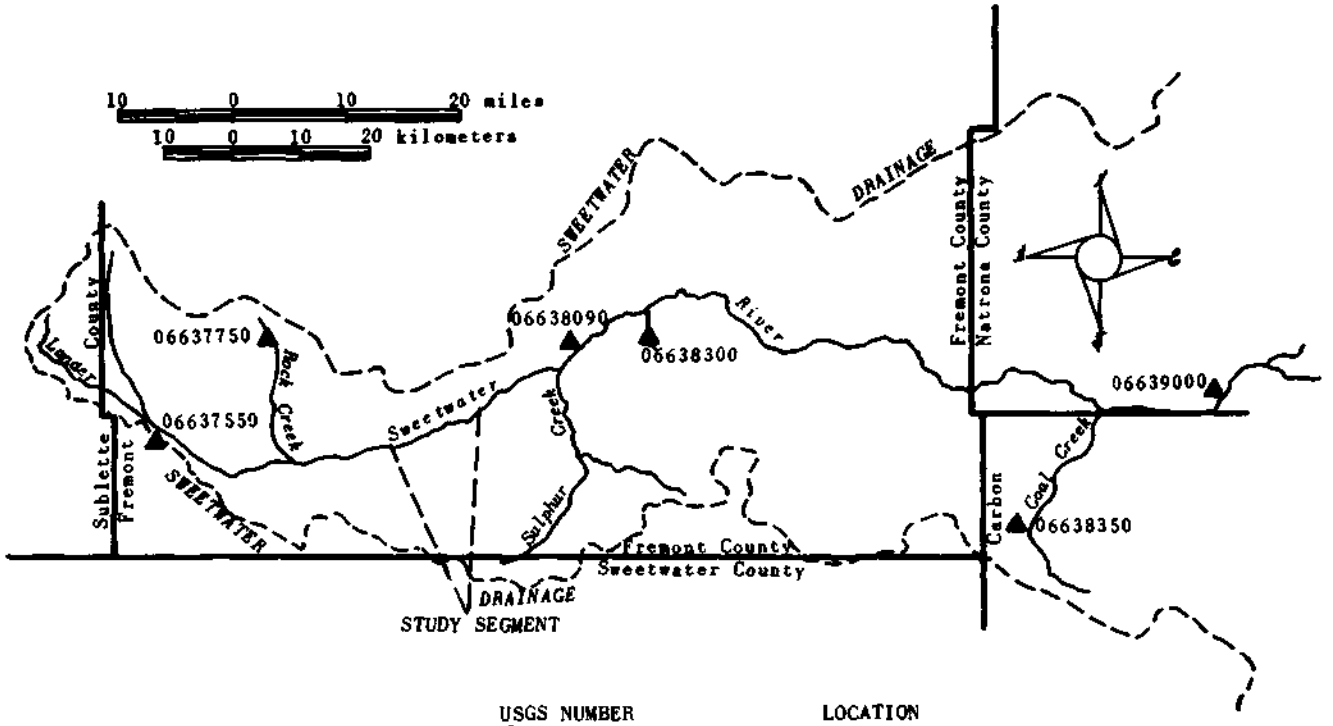
The pattern of flow of the Sweetwater River is erratic, showing a high spring discharge due to snowmelt, moderate summer flows, and low winter discharges. Daily flows vary considerably because of weather variations which affect the snowmelt. Thunderstorms will occasionally cause flash floods that have high peak discharges but produce little to affect the total annual runoff of about 91,000 acre feet (112 million m^3).

The location of stream gaging and water quality stations within the Sweetwater drainage during 1977 is shown in figure III-2. Year-round, long-term readings are available from the station near Alcova for the water years 1914 to 1924 and 1939 to 1973. Average

Figure III-2

SWEETWATER WILD AND SCENIC RIVER STUDY
FREMONT COUNTY, WYOMING

Stream Gaging and Water Quality Stations



	USGS NUMBER	LOCATION
STANDARD USGS GAGING STATIONS	06637750	Rock Creek above Rock Creek Reservoir
	06638090	Sweetwater River near Sweetwater Station
	06639000	Sweetwater River near Alcova (also water quality monitoring)
PEAK FLOW PARTIAL RECORD USGS GAGING STATIONS	06637550	Sweetwater River near South Pass City
	06638300	West Fork Crooks Creek near Jeffrey City
	06638350	Coal Creek near Muddy Gap

SWRI	20110
DSC	JULY 79

monthly and annual discharge patterns at this gage are shown in figures III-3 and III-4. During this period, over 70 percent of the average annual streamflow, 126 cubic feet per second (ft^3/s) (3.6 cubic meters per second - m^3/s), measured at the Alcova gaging station occurred during April, May, and June.

Groundwater

Groundwater is a potentially significant resource and contributes substantially to the flow of the Sweetwater. The groundwater is used for domestic, stock, industrial, and municipal water supplies. Most of the water is of high quality, and according to the U. S. Geological Survey has a concentration of less than 350 parts per million of total dissolved solids in water found to a depth of 200 feet (61 m). Figure III-5 shows the geologic formations and their groundwater potential for the Sweetwater drainage.

Water Quality

The water quality standards adopted by the State of Wyoming in July 1974 are currently being revised. However, the present standards are summarized in table III-1 and classify waters as I, II, or III.

Class I waters are those which support game fish or have the hydrologic and natural water quality potential to support game fish. Class II waters support nongame fish or have the hydrologic and natural water quality potential to support nongame fish. Class III waters do not have the hydrologic or natural water quality potential to support fish.

Water quality of the Sweetwater has been evaluated by the Wyoming Department of Environmental Quality against State standards and has been found to meet the criteria of Class I waters. In fact, snowfields in the headwaters of the river yield waters so clear and pure it is said to have caused travelers on the Oregon Trail to name the river "Sweetwater."

Water Rights

Water rights in Wyoming are based upon the doctrine of prior appropriation. Under this system, water rights are acquired by making appropriations to apply water to beneficial uses and are awarded priorities according to appropriation dates. Water rights with earlier appropriation dates have prior rights and are "senior" to water rights with later appropriation dates. When the water supply is limited, senior water rights are satisfied first on a priority basis. Beneficial uses include domestic, agricultural, industrial, wildlife, and impoundment of water for recreation purposes.

Figure III-3
AVERAGE MONTHLY FLOW[1]
SWEETWATER RIVER NEAR ALCOVA, WYOMING
Water Years 1914-1924 and 1939-1973

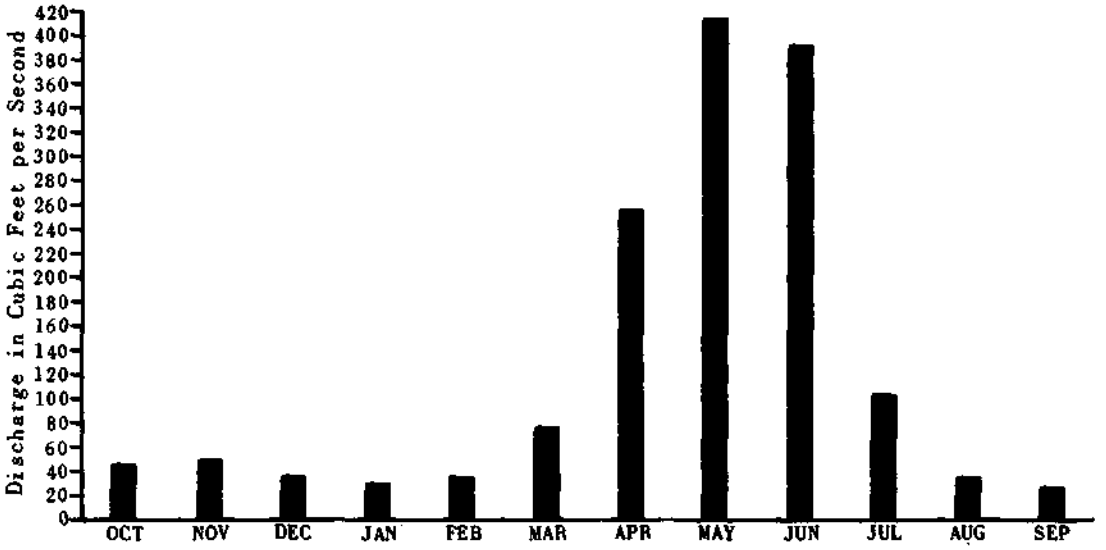


Figure III-4
AVERAGE ANNUAL FLOW[1]
SWEETWATER RIVER NEAR ALCOVA, WYOMING
Water Years 1914-1924 and 1939-1973

[1]SOURCES: USGS Gaging Station No. 06639000

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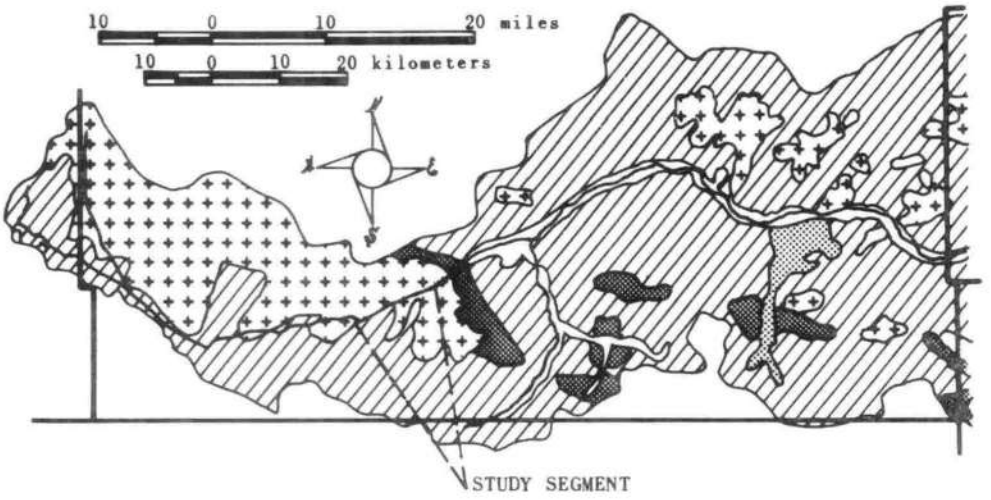
DSC | JULY 79

Figure III-5

SWEETWATER DRAINAGE
FREMONT COUNTY, WYOMING
Geologic Map Showing Groundwater Potential



Quaternary sediments-sand deposits are not considered to be reliable aquifers.

Quaternary sediments-flood plain alluvium and valley fill yield less than 500 gpm from depths to 100 feet.

Tertiary formations-consolidated sandstones and conglomerates may yield up to 1,000 gpm from depths to 1,000 feet.

Pre-Tertiary formations-sandstone, limestone, and fractured shale may yield up to 1,000 gpm, from depths to 5,000 feet. Flowing artesian wells are possible.

Igneous rocks are not normally aquifers.

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DSC	JULY 79

Table III-1

WYOMING WATER QUALITY STANDARDS

Criteria	CLASS STANDARDS		
	I	II	III
Undissolved Solids, Taste, Odor, Color, & Toxic Materials	Free from	Free from	Free from
Oil and Grease	10 mg/l max. or cause film, discoloration, or deposits	Same as I	Same as I
Radioactive Materials	Maximum of 3 pCi/l of Ra 226, 10 pCi/l of SR 90, or Drinking Water Standards	Same as I	Same as I
Fecal Coliform Bacteria	In lakes at altitude less than 7000' (2134 m) and some streams, geometric mean of <200/100 ml from 5 samples in 30-day period In other obides of water, geometric mean of <1,000/100 ml from 5 samples in 30-day period	Same as I	Same as I
Turbidity	No increase of more than 10 J.T.U.	Same as I	Same as I
Dissolved Oxygen	Minimum of 6 mg/l	Minimum of 5 mg/l	*
pH	6.5 - 8.5	Same as I	Same as I
Temperature	Normal Max. 68°F (20°C): Max. change 2°F (1°C) Normal Max. >68°F (20°C): Max. change: Cold Streams, 2°F (1°C) - Total not >78°F (26°C) Warm Streams, 4°F (2°C) - Total not >90°F (32°C) Lakes, 2°F (10°C)	Same as I	*
Total Gas Pressure	Max. of 110% of atmospheric pressure	Same as I	Same as I

*No standards established.

Data obtained from the Wyoming State Engineer's Office indicate that there are over 220 ft^3/s (6 m^3/s) of total annual appropriations for nearly 100 decreed water rights on the main stem of the Sweetwater, as shown in appendix D. Most of these are for stock, domestic, and industrial use. There are 12 upstream water rights which appropriate about 20 ft^3/s (0.6 m^3/s). However, there are no water rights to allow diversions within the 9.5-mile-long (15.3-km-long) study corridor.

The Sweetwater River is one of the North Platte River tributaries affected by the mandate of the U. S. Supreme Court's 1945 North Platte River Decree. The decree limits irrigation in Wyoming on the main stem of the North Platte River above Guernsey Reservoir and the North Platte tributaries above Pathfinder Dam to 168,000 acres (680 km^2) of land, exclusive of the Kendrick Project. Exclusive of Seminoe Reservoir, not more than 18,000 acre-feet (22 million m^3) of irrigation water may be stored in Wyoming on the North Platte River and its tributaries above Pathfinder Reservoir in any water year. The decree severely limits the possibility of any irrigation water storage projects on the Sweetwater, since about 157,000 acres (635 km^2) are being irrigated within the decree area and a storage capacity in excess of 18,000 acre-feet (22 million m^3) has been constructed.

Water Resource Development

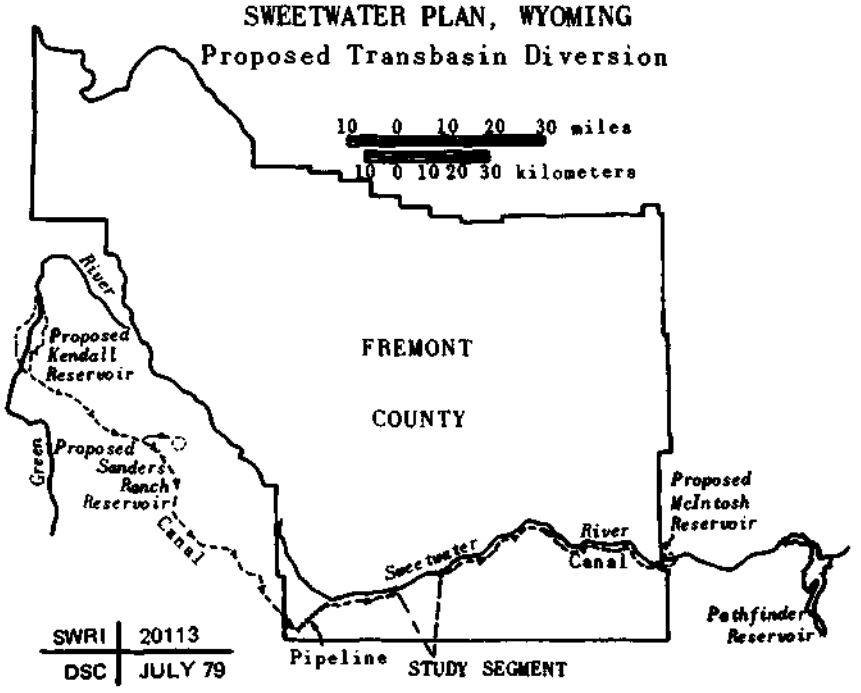
Because of the North Platte River Decree, no storage sites for improved irrigation water supplies in the Sweetwater drainage have been investigated. However, several proposed plans of Green River water development could divert water into the Sweetwater basin. Under one plan, water would be diverted from the proposed Kendall Reservoir and pumped over the Continental Divide at South Pass. In another plan, water would be diverted from the proposed Sanders Ranch Reservoir into the Sweetwater drainage. In each plan the water would be conveyed by a combination of a canal and the channel within Sweetwater Canyon to the proposed McIntosh Reservoir on the lower Sweetwater River, as shown in figure III-6. Releases from McIntosh Reservoir would flow in natural river channels to Pathfinder Reservoir on the North Platte River.

The amount of water ultimately made available to Wyoming under the Colorado River and Upper Colorado River compacts and the projects actually constructed in the Green River basin would determine the amount of water available for possible diversion into the North Platte River basin. According to the Wyoming State Engineer's report of September 1971, Water and Related Land Resources of the Platte River Basin, at least 93,000 acre-feet (115 million m^3) of water would probably be available for diversion to the North Platte River basin from the Green River. The report also states that under current conditions the costs of the transbasin diversion are considered too high to warrant utilizing this water strictly for irrigation purposes.

Figure III-6

SWEETWATER PLAN, WYOMING

Proposed Transbasin Diversion



Therefore, any irrigation water costs must be subsidized with mining or industrial use of the imported water, should such importation occur. However, there are no investigations of water diversions currently being conducted, and the State of Wyoming has requested that only diversions below the town of Green River be considered.

H. RECREATION AND AESTHETICS

Recreation

Although there are no developed sites, a limited amount of camping and picnicking takes place within the study corridor via four-wheel-drive roads. Use is concentrated at each end of the canyon and at Strawberry Creek. Hiking and backpacking are possible throughout the canyon, but use is low. Bureau of Land Management has no plans for development of campgrounds, picnic grounds, trails, or interpretive centers in the area.

The Sweetwater River from Wilson Bar to Spring Creek offers the angler a high-quality fishing experience. Fishing for rainbow and brown trout is of sufficient quality for the Wyoming Game and Fish Department to rate the study segment as an above-average fishery. However, due to the inaccessibility of the area and an abundance of good fisheries elsewhere in the region, total use is quite low.

Because of low flows, steep gradients, the presence of many large boulders in the channel, and the relative inaccessibility of the river, float trips are rarely undertaken. During the spring when discharges are extremely high, the river could possibly be floated by experts, but the "flood" conditions make any attempts very dangerous.

According to visitor counts and traffic counter readings, the area receives its heaviest use during the fall hunting seasons and during summer weekends. The Bureau of Land Management estimates use at 1,500 visitor days in the canyon during 1977.

Mule deer are hunted within the canyon, and the principal small game species is the cottontail rabbit. Sage grouse are also hunted but are not as plentiful as in other parts of the county.

Organized, noncommercial groups occasionally use the canyon in conjunction with wagon train treks along the historic transportation corridor in the lower end of the area.

The National Outdoor Leadership School (NOLS) in Lander conducts outdoor education courses in the canyon. In 1975 their use totaled 280 visitor days; in 1976, 694 visitor days; and in 1977 their use is expected to total about 660 visitor days. The canyon receives a small amount of additional commercial use by a flyfishing outfitter, which should total about 40 visitor days in 1977.

Aesthetics

The basic appeal of the canyon is the feeling of uncluttered open space, isolation, and peacefulness. The canyon can be better appreciated when compared to its surroundings, the western semi-arid high plains. A contrast in color and texture with the surrounding desert environment is provided, imparting bright green and blue hues to the landscape in summer, and blue, gold, and brown in the fall. Steep rock walls also contrast with the nearby smooth rolling hills.

I. LAND OWNERSHIP AND USE

Land Ownership

As shown in table III-2 and figure III-1, approximately 91 percent of the acreage is federally owned, 6 percent is privately owned, and 3 percent is State owned. The entire 2,176 acres (8.8 km^2) of Federal land are administered by the Bureau of Land Management. The one private land holding lies on Spring and Chimney Creeks; the 64 acres (0.3 km^2) of State land at Wilson Bar is school land which has been leased for livestock grazing. Only about one-quarter mile (0.4 km) of the river flows through private land; the remainder flows through public land.

TABLE III-2

LAND OWNERSHIP
Sweetwater Study Area
Fremont County, Wyoming

	BLM	State	Private	TOTAL
Linear River Miles (km)	9.2 (14.8)	0	0.3 (0.5)	9.5 (15.3)
Acres (km^2)	2,176.0 (8.8)	64.0 (0.3)	153.6 (0.6)	2,393.6 (9.7)
Percent of Total Acreage	90.9	2.7	6.4	100.0

In addition to recreational and wildlife uses, the canyon is also used for livestock grazing, especially in the Wilson Bar, Strawberry Creek, and Chimney Creek areas where water and wet meadows are present.

Although there are trees scattered throughout, it is unlikely they would constitute a timber resource. It would be economically impractical to remove the trees because of poor access, limited timber, low market demand, and distance from the site to the nearest sawmill and market.

There are about 70-75 mining claims for jade, tungsten, and/or gold. However, none are actively developed, and only about 10 are of recent establishment.

A total of 601.6 acres (2.4 km^2) in two sections in the lower area, as shown in figure III-1, has been withdrawn from mining by the Bureau of Land Management to protect portions of the Oregon Trail.

Almost all of the lands within the study corridor are within an area that has been identified as potential Wilderness (see Figure V-1). The area, known as the Sweetwater Canyon Proposed Wilderness Study Area, will be evaluated in 1979. If Wilderness designation is authorized, the area will be guaranteed long-term protection of its resource values.

J. CULTURAL RESOURCES

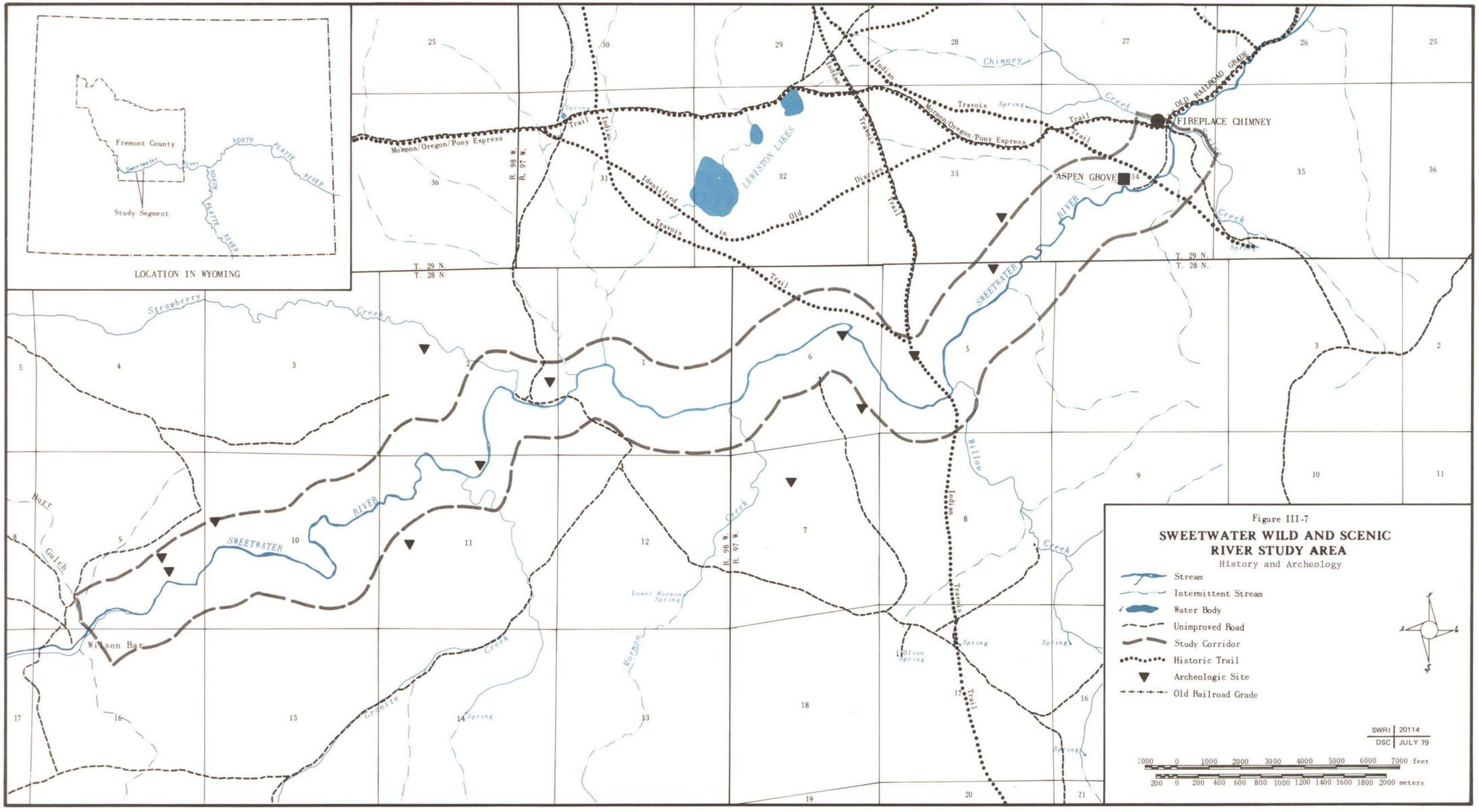
Archeology

In 1975 all terrain features in Sweetwater Canyon were sampled by a BLM staff archeologist. The 13 sites identified, as shown in figure III-7, were probably one-time occupation sites used for a very short period. Numerous sites probably existed along or near the river's edge, but periodic water inundation has covered or destroyed all evidence of those locations.

The Wyoming State Archeologist believes many more sites probably exist and recommends a complete surface survey be done before any conclusions are reached regarding the archeological value of the area.

History

The first white men known to have visited the canyon were a party of 11 fur trappers led by Jedediah Smith. They had been given directions by the Crow Indians and were headed toward the Green River over South Pass to trap for Ashley and Henry's Rocky Mountain Fur Company. Other well-known members of the party included William Sublette, Tom Fitzpatrick, and James Clyman. A winter storm prevented them from crossing South Pass, so they turned eastward and proceeded down the Sweetwater River. The party found shelter in a grove of aspen in the canyon and stayed there for 2-3 weeks durung February and March of 1824. The historic aspen grove is thought to be located in T.29N., R.97W., Section 34, in the NE 1/4 of the SW 1/4, as shown in figure III-7. A cache containing powder and lead was left, and it was agreed to reassemble there by June 1. Returning after a successful season of trapping, the men dug up the cache, built two "bull boats," loaded their furs, and floated down the Sweetwater.


LOCATION IN WYOMING
Fremont County
Sweetwater River
NORTH PLATTE RIVER
Study Segment
Mormon/Oregon/Pony Express
Travois Trail
Indian Trail
Identified Travois Trail In Old Diaries
LEWISTON LAKES
Chimney Creek
OLD RAILROAD GRADE
FIREPLACE CHIMNEY
ASPEN GROVE
SWEETWATER RIVER
Strawberry Creek
Bull Gulch
Wilson Bar
Granite Creek
Lower Morgan Spring
Morgan Spring
Olson Spring
Willow Creek
Indian Creek
R. 98 W.
R. 97 W.
T. 29 N.
T. 28 N.
Figure III-7
SWEETWATER WILD AND SCENIC RIVER STUDY AREA
History and Archeology
Stream
Intermittent Stream
Water Body
Unimproved Road
Study Corridor
Historic Trail
Archeologic Site
Old Railroad Grade
SWRI 20114
DSC JULY 79
7000 feet
2000 meters

Indian trails cross the canyon, as shown in figure III-7. Travois trails led to several fording places along the river, and it was one of these ancient trails that led the fur trappers into the area to the aspen grove.

The historic transportation corridor which contains the Oregon, Mormon, and California Trails, as well as the Pony Express, Overland Telegraph, and Overland Stage routes, passes through the extreme lower end of the study area, turns northwestward at Chimney Creek, then runs parallel to the canyon about a mile and a half to the north, as shown in figure III-7. The corridor was used by thousands of people during the westward expansion and gold rush days to traverse the Sweetwater Valley and cross the Continental Divide at South Pass.

In 1851 a stage line was established over the Oregon/Mormon/California Trails to carry mail and passengers from St. Joseph, Missouri, to Salt Lake City, Utah. In later years the stage line was acquired by Ben Holladay and became known as the Overland Stage. Indians frequently seized the Overland stages, and in 1862 Holladay shifted his stage line to the Overland Trail in southern Wyoming.

In 1860 the Pony Express began delivering mail from St. Joseph, Missouri, to Sacramento, California, using the California Trail route. By October 1861 the Overland Telegraph was completed, following the same trail from St. Joseph to Sacramento. This faster means of communication ended the Pony Express. The telegraph line was moved to the Overland Trail in 1865.

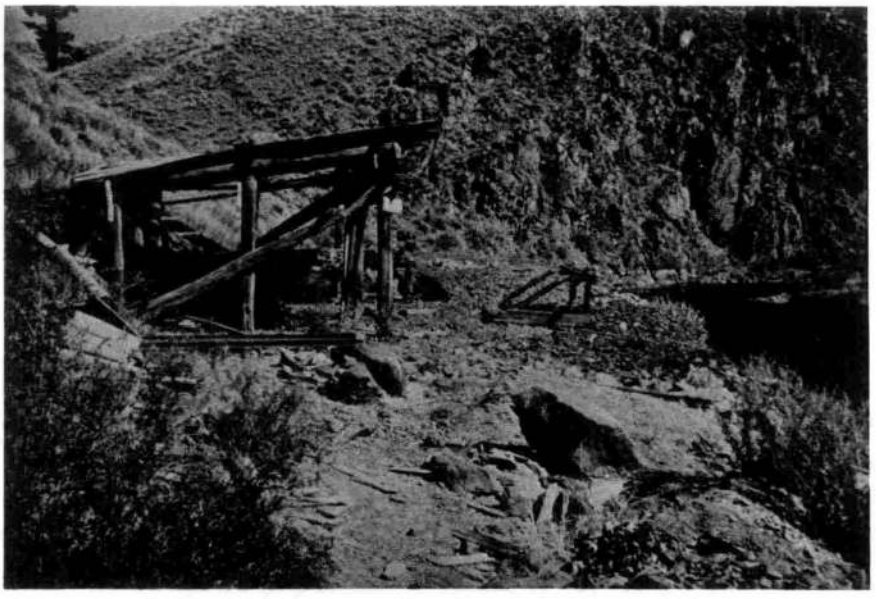
Exploration for gold in the general vicinity is said to have begun in 1842 with the discovery of placer gold along Strawberry Creek.

There is no record of any gold ever having been placer-mined from within the canyon itself, though there may have been some prospecting.

A little over a mile of railroad grade and tracks was constructed just below Sweetwater Canyon, as shown in figure III-7. Most of the evidence offered by several major railroads and in several editions of Henry V. Poor's Manual of the Railroads of the United States indicates that the grading was done by the Wyoming and Eastern Railroad about 1889. As late as 1958 some remains of the grade, track, and ties could still be found.

The chimney at the lower end of the canyon, near Chimney Creek.

The Oregon/Mormon/California Trail and Pony Express route passed through the study area.



The entrance to this abandoned mine is one of the few signs of man's presence within Sweetwater Canyon.

CHAPTER IV

ELIGIBILITY AND CLASSIFICATION

A. ELIGIBILITY

The 9.5-mile (15.3-km) segment of the Sweetwater River from Wilson Bar downstream to Spring Creek was evaluated by the interdisciplinary study team using the data presented in chapters II and III. Results of the field survey were also important in evaluating the river. This evaluation was in accordance with the requirements of the Wild and Scenic Rivers Act and the general criteria contained in the joint Department of the Interior/Department of Agriculture "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas . . ." as shown in appendix A. These documents state that in order for a river to be eligible it must possess one or more outstandingly remarkable values, it must be free flowing, it must meet certain criteria for water quality and volume, and it must be of a length sufficient to provide a meaningful experience.

Outstanding Values

A river is eligible for inclusion in the system if it possesses one or more outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. Because neither the Act nor the Guidelines define an "outstandingly remarkable value," an accepted definition has developed through the course of numerous river studies. Outstandingly remarkable values are those which are of national importance or are unique or rare when compared with similar areas. Each of the categories is discussed below.

Scenic Values - The Bureau of Land Management conducted a survey of the scenic qualities of the study segment by evaluating land form, color, water, vegetation, intrusions, and uniqueness. This survey rated the Sweetwater River as having high, but not excellent, scenic value. Based on field observations, the study team concurred with this evaluation.

Recreational Values - The river provides the hunter, camper, fisherman, and hiker with a pleasant experience in a virtually untouched area. However, the local availability of large tracts of public land (Forest Service, BLM, and State) provides what many people believe to be superior recreational experiences. Therefore, when placed in a regional context, the recreational experience within Sweetwater Canyon was not considered outstandingly remarkable.

Geologic Values - The geologic values of the river were found by a BLM geologist to be of average quality. The Precambrian granite and metamorphosed sediments are not unique or unusual formations. The lack of extractable minerals rendered the mineral values of the corridor extremely low.

Fish and Wildlife Values - The Wyoming Game and Fish Commission has rated the fish qualities of the study segment as above average but not of the highest quality. Wildlife values were rated as excellent because of the presence of several big game species, including moose, deer, and antelope. Nevertheless, these values were not considered to be outstandingly remarkable when compared to those of many areas within the region.

Historic Values - The historic values were determined to be outstandingly remarkable for the following reasons. The transportation corridor that contained the Oregon and Mormon trails, which have been designated as a Natural Historic Trail and recommended for that designation, respectively, pass through the extreme lower end of the study corridor. Also, the California Trail, the Pony Express route, and the Overland telegraph line passed through the corridor, following the same general path as the Oregon and Mormon Trails. The Sweetwater Canyon also has a notable place in the history of William H. Ashley's fur trappers, who helped open the West.

Archeologic Values - According to a 1975 BLM archeological survey, the 13 sites identified were one-time occupation sites. The Wyoming State Archeologist believes that there are probably more sites within the canyon, and a comprehensive survey should be done. However, these sites, although valuable, are not uncommon to the area.

Free Flowing

As defined in the Act, free flowing means" . . . without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. However, low dams, diversions, works, or other minor structures will not automatically preclude the river unit from being included. . . ." This statement is interpreted as referring only to impoundments located in that portion of the river under study. There are no impoundments or diversions within the study segment of the Sweetwater River, and therefore it is free flowing.

Water Quality

The Guidelines state that (1) "The river should be of high quality water or susceptible for restoration to that condition," and (2) that "Wild river areas can be included in the national system only if they meet the minimum criteria for primary contact recreation except as these criteria might be exceeded by natural background conditions." As shown in table III-1, the Sweetwater meets the minimum criteria for primary contact recreation.

Water Volume

The Guidelines state that "There should be sufficient volume of water during normal years to permit, during the recreation season, full enjoyment of water-related outdoor recreation activities generally associated with comparable rivers." Water volume in the Sweetwater River is insufficient for float boating and varies between monthly averages of about 31 cfs (0.9 m^3/s) and 415 cfs (11.8 m^3/s). However, this flow is typical of similar western rivers and allows the Sweetwater to support a good trout fishery.

Length

The Guidelines state that "The river or river unit must be long enough to provide a meaningful experience. Generally, any unit included in the system should be at least 25 miles (40 km) long. However, a shorter river or segment that possesses outstanding qualification may be included in the system." The portion of the Sweetwater River under study is 9.5 miles (15.3 km) long, which is only 38 percent of the recommended minimum length. Although the river possesses excellent water quality and wildlife values, the only outstandingly remarkable values found were historic qualities. These values were determined to be of insufficient significance to be considered the "outstanding qualifications" necessary to warrant waiver of the length criterion.

Table IV-1 summarizes how these characteristics were evaluated in determining whether the Sweetwater River was eligible for inclusion in the National Wild and Scenic Rivers System.

B. CLASSIFICATION

As can be seen in table IV-1, length was the only criterion that rendered the Sweetwater River study segment ineligible for inclusion in the National Wild and Scenic Rivers System. However, the adjacent 46-mile-long (74-km-long) portion of the Sweetwater River upstream from Wilson Bar to the headwaters has been recommended for study for possible inclusion in the system by the Administration. Therefore, it was appropriate to determine which protective classification (wild, scenic, or recreational) the river would be suitable for should a contiguous segment be studied and found eligible for inclusion in the Wild and Scenic Rivers System.

The characteristics of the study segment were evaluated against the specific criteria for each classification as presented in the Act and Guidelines. In summary, these criteria are as follows:

> Wild river areas - Those rivers or sections of rivers that are free of impoundments, generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Table IV-1

SUMMARY OF ELIGIBILITY
Sweetwater River
Fremont County, Wyoming

Criteria	Characteristics	Meets Criteria
Free-flowing nature affected by:		
Impoundments	No	Yes
Diversions	No	
Road fills	No	
Length:		
At least 25 miles (40 km) long	No	No
Water quality suitable for:		
Primary contact recreation	Yes	Yes
Secondary contact recreation	Yes	
Water aesthetics	Yes	
Fish and aquatic life propagation	Yes	
Outstandingly remarkable:		
Scenic values	No	Yes
Recreational values	No	
Geologic values	No	
Fish and wildlife values	No	
Historic values	Yes	
Archeologic values	No	

ELIGIBILITY FOR NATIONAL WILD
AND SCENIC RIVERS SYSTEM: Not eligible due to short length.

Scenic river areas - Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational river areas - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

The above criteria can be summarized as follows:

1. Water quality
2. Free-flowing characteristics
3. Accessibility
4. Shoreline development

As previously stated, the Sweetwater River has excellent water quality and is free flowing through the entire study area. Therefore, the key factors used to determine the classification level were accessibility and the amount of shoreline development.

The study segment is generally inaccessible, with primitive 4-wheel-drive roads at both ends and at one place in approximately the center of the segment.

The shorelines are essentially primitive, being free of habitation and other substantial evidence of intrusions with the exception of an old mine entrance near Wilson Bar. The study segment, therefore, meets the criteria for "wild" classification.

C. SUMMARY

The Sweetwater River from Wilson Bar to Spring Creek was determined to be ineligible because its short length and limited outstandingly remarkable values do not warrant making an exception to the 25-mile (40 km) length criterion contained in the "Guidelines." However, the river was found to be free flowing and have excellent water quality and wildlife values.

In the event a contiguous portion of the river is found eligible and recommended for designation to the National Wild and Scenic Rivers System, this reach would probably qualify for addition to the recommended area as a "wild" segment.

Should this portion of the Sweetwater be designated, the present land uses of grazing and dispersed recreation would not be affected. In addition, there are no other forseeable uses of the land or water that would be enhanced, foreclosed, or curtailed by inclusion in the national system.

The Bureau of Land Management manages over 90 percent of the 2,394 acres (9.3 km^2) within the study corridor and should continue as the management agency if this river reach were included in the national system.

A cooperative agreement could be executed with the State of Wyoming to ensure that management of the 64 acres (0.3 km^2) of State land within the corridor is compatible with "wild" designation.

The cost of acquiring scenic easements on the remaining 153.6 acres (0.6 km^2) of private land would be approximately $50,000. The initial administrative cost of preparing a management plan, printing a map and brochure, and placing signs in the area would be about $500. No additional administrative, operation, or maintenance costs would be involved.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The 9.5-mile (15.3-km) segment of the Sweetwater River from Wilson Bar downstream to Spring Creek was found ineligible for inclusion in the National Wild and Scenic Rivers System because of its failure to meet the minimum length criterion of 25 miles (40 km). This criterion is set forth in the U.S. Department of the Interior/U.S. Department of Agriculture "Guidelines for Evaluating Wild, Scenic, and Recreational River Areas Proposed for Inclusion in the National Wild and Scenic Rivers System Under Section 2, Public Law 90-542."

Although the river was found to be free flowing, have excellent wildlife values and water quality, and possess outstandingly remarkable historic values, a determination was made that in total these were of insufficient quality and significance to constitute the "outstanding qualifications" necessary for a river segment only 9.5 miles (15.3 km) long to be eligible. This is primarily due to the fact that the historic qualities are concentrated in one area at the extreme lower end of the study corridor. In addition, the historic values are protected by a BLM withdrawal.

B. RECOMMENDATIONS

Based on the above conclusions, the Sweetwater River from Wilson Bar downstream to Spring Creek is not recommended for designation as a component of the National Wild and Scenic Rivers System.

However, should a contiguous portion of the river be studied and found eligible, this segment would qualify for inclusion as a "wild" river. Assuming there is no degradation of resource values, it is recommended for designation as such.

The existing values of Sweetwater Canyon are further recommended for protection by designation and management as Wilderness, i.e., as an authorized unit of the National Wilderness Preservation System. This recommendation is based on the assumption the area qualifies for this designation (the evaluation to determine this is to be completed in 1979). Wilderness designation would provide effective, long-term preservation of the canyon's natural and historic values.

Should Sweetwater Canyon not qualify for Wilderness and not be made part of an extended wild and scenic river area, it should receive some other form of special recognition, designation, and management

(such as an "Area of Critical Environmental Concern"[1]) that guarantees future protection of the area.

The management objectives of Wilderness designation would be in accord with the purpose and intent of the Wild and Scenic Rivers Act and would not preclude future wild and scenic river designation. It is assumed that the same would be true for an "Area of Critical Environmental Concern" designation.

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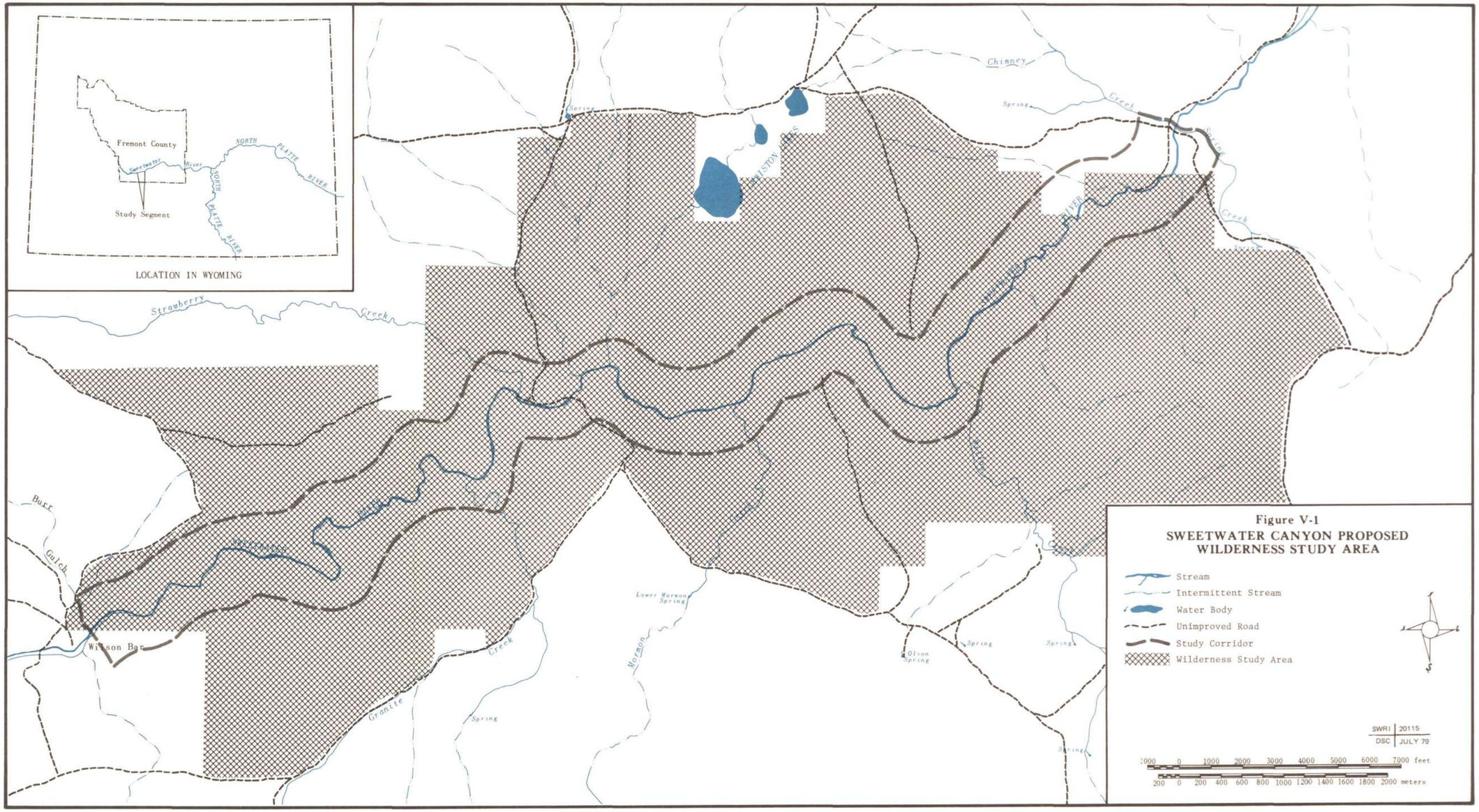
[1]This is a designation authorized by the Federal Land Management Policy Act of 1976 (P.L. 94-579), which would provide a means for protecting special areas of environmental concern that do not fall under the province of other federal preservation programs. Selection and management criteria for this designation have not yet been developed.


Fremont County
Sweetwater River
NORTH PLATTE RIVER
NORTH PLATTE RIVER
Study Segment
LOCATION IN WYOMING
Strawberry Creek
Burr Gulch
Wilson Bar
Granite Creek
Spring
Lower Mormon Spring
Mormon Creek
Olson Spring
Spring
Spring
Spring
Chimney Spring
Creek
Creek
Creek
Spring
Figure V-1
SWEETWATER CANYON PROPOSED WILDERNESS STUDY AREA
Stream
Intermittent Stream
Water Body
Unimproved Road
Study Corridor
Wilderness Study Area
SWRI 20115
DSC JULY 79
1000 0 1000 2000 3000 4000 5000 6000 7000 feet
200 0 200 400 600 800 1000 1200 1400 1600 1800 2000 meters

APPENDIX A

LIST OF DATA SOURCES

The Bureau of Outdoor Recreation and the Bureau of Land Management were responsible for the conduct of the Sweetwater Wild and Scenic River Study and the preparation of the formal draft report.

However, the study could not have been completed without the cooperation of many other State, Federal, and local agencies, and private individuals. Many from these groups participated in meetings and field examinations, provided coordination and guidance, and contributed information, technical data, and professional insight.

A listing of most of these sources follows. The study team wishes to express its gratitude for the help they provided and also extend an apology for any names that were unintentionally omitted.

Federal Agencies

Bureau of Land Management
Bureau of Outdoor Recreation
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
National Oceanic and Atmospheric Administration
Soil Conservation Service

Wyoming State Agencies

Department of Environmental Quality
Game and Fish Department
Recreation Commission
State Archeologist's Office
State Archives and Historic Department
State Engineer's Office
State Historic Preservation Office
Travel Commission

Local Agencies

Fremont County Planning Department

Individuals

Paul Henderson

Public views were obtained through a series of news releases, public presentations, and interviews. All comments received were considered in the preparation of the report.

APPENDIX B

HISTORIC SITES
Fremont County, Wyoming

The following sites are listed in The National Register of Historic Places, 1976:

Castle Gardens Petroglyph Site

Located about 28 miles (45 km) south of Moneta on U. S. Highway 20/26, this extensive prehistoric petroglyph site has numerous incised drawings, including several figures of water turtles. The portrayal of snapping turtles not native to the area probably signifies a cult which spread west from the Mississippi and Missouri Rivers. The absence of elements introduced by Europeans suggests an antiquity of several centuries.

Fort Washakie

Located on the Wind River Indian Reservation on U. S. Highway 287, the frame and stone buildings of the fort were originally established in 1869 as a camp to protect the Bannock and Shoshone Indian Reservations from hostile tribes. The fort was moved to the present location in 1871 and served as supply base for expeditions to Yellowstone Park and Big Horn Basin areas. The fort was originally named Camp Brown after Captain Frederick S. Brown who was killed in the Fetterman Massacre. The name was changed in 1878 to honor the respected Shoshone Chief Washakie, who is buried in the post cemetery.

Shoshone-Episcopal Mission

Located 3 miles (4.8 km) southwest of Fort Washakie on Moccasin Lake Road, this 1889, 2-story brick building and adjacent log church and cabin (c. 1900) was established on the Wind River Reservation by John Roberts, with the encouragement of the Shoshone leader, Chief Washakie.

St. Michael's Mission

These stone mission buildings were built within Fort Washakie by Rev. John Roberts, an Episcopal missionary. The mission was established in 1878 to serve the Northern Arapaho who wintered at the nearby Wind River.

South Pass

Located about 10 miles (16 km) southwest of South Pass City on Wyoming Highway 28, this low pass provided the easiest route through the Rocky Mountains and was the place where the Oregon-California Trail crossed the Continental Divide. The pass was discovered by Jedediah Smith in 1824 and was instrumental in opening the West to development.

South Pass City

The surviving structures of the most important town established in the Sweetwater gold mining region include a store, bar and hotel, and other buildings, mostly of log construction. The town was established in 1867 in response to the Gold Rush and was the county seat from 1868 to 1874. The town was where feminist Esther Morris became the Nation's first female Justice of the Peace in 1870.

Union Pass

Located on the Continental Divide in Teton National Forest, the pass is a core area from which the Wind River, Gros Ventre, and Absaroka Mountain Ranges rise. The pass was frequently used by Indians and later became important in early exploration and fur trading.

Pending Sites

These sites have been nominated for enrollment and are awaiting approval of the Office of Archeology and Historic Preservation, Washington, D.C.:

Directional Arrow and Tipi Rings
Hamilton City or Miner's Delight
Last or Ninth Crossing

TABLE C-1
WILDLIFE
FREMONT COUNTY, WYOMING

WILDLIFE TYPE	SCIENTIFIC NAME	COMMON NAME
Mammals	*Ursus americanus*	black bear
	**Antilocapra americana*	antelope
	**Odocoileus hemionus*	mule deer
	Odocoileus virginianus	white tail deer
	**Cervus canadensis*	elk
	**Alces alces*	moose
	Ovis canadensis	bighorn sheep
	**Felis concolor*	mountain lion
	**Sylvilagus auduboni*	desert cottontail
	**Sylvilagus nuttalli*	mountain cottontail
	Mustela erminea	short-tail weasel
	Mustela frenata	long-tail weasel
	**Taxidea*	badger
	Spilogale putorius	spotted skunk
	Mephitis mephitis	striped skunk
	**Canis latrans*	coyote
	**Vulpes fulva*	red fox
	Vulpes velox	swift fox
	**Lynx rufus*	bobcat
	Canis lupus irramontus	Rocky Mountain wolf
	**Citellus richardsoni*	Richardson's ground squirrel
	**Citellus lateralis*	golden-mantled squirrel
	Martes americana	pine martin
	Lepus americanus	snowshoe hare
	Ochotona princeps	pika
	**Lepus townsendii*	whitetail jackrabbit
	**Sciurus niger*	fox squirrel
	**Sorex sp.*	shrew
	Didelphis marsupialis	opossum
	**Procyon lotor*	raccoon
	**Spermophilus spilosoma*	spotted groundsquirrel
	**Castor canadensis*	beaver
	**Ondatra zibethica*	muskrat
	**Mustela vision*	mink
	Lynx canadensis	lynx
	Perognathus fasciatus	Wyoming pocket mouse
	**Dipodomys ordi*	ord kangaroo rat
	Reithrodontomys megalatis	western harvest mouse
	**Peromyscus maniculatus*	deer mouse
	Onychomys leucogaster	northern grasshopper mouse
	**Neotoma cinerea*	bushytail woodrat
	**Microtus sp.*	vole
	**Lagurus curtatus*	sagebrush vole
	**Erethizon dorsatum*	porcupine
	Zapus princeps	western jumping mouse
	**Myotis lucifugus*	little brown myotis
	Myotis thysanodes	fringed myotis
	Myotis evotis	long-eared myotis
	Myotis subulatus	small-footed myotis
	**Marmota flaviventris*	yellowbelly marmot
	**Cynomys sunnisoni*	whitetail prairie dog
	**Geomys lucbvicianus*	plains pocket gopher
	Mustela nigripes	black-footed ferret
	**Equus caballus*	wild horse
	**Equus caballus*	domestic horse
	**Bovidae*	domestic cattle
	**Ovis domesticus*	domestic sheep
	**Capridae*	domestic goat
	Rattus norugicus	Norway rat
	Mus musculus	house mouse
	Clethrionomys gapperi	boreal redback vole
	**Lutra canadensis*	river otter
Reptiles	**Crotalus viridis*	prairie rattlesnake
	Coluber constrictor	racer
	**Pituophis melanoloucae*	bull snake
	**Thamnophis sirtales*	garter snake
	**Sceloporus graciosus*	sagebrush lizard
	**Phrynosoma douglasii*	horned lizard
Amphibians	**Ambystoma tigrinum*	tiger salamander
	Scaphiopus intermontanus	Great Basin spadefoot

WILDLIFE TYPE	SCIENTIFIC NAME	COMMON NAME
Amphibians, Continued	*Pseudacris triseriata*	boreal frog
	**Rana pipiens*	leopard frog
Birds	*Gavia immer*	common loon
	Gavia immer	red throated loon
	**Podiceps auritus*	horned grebe
	Podiceps caspicus	eared grebe
	Aechmorphorus occidentalis	western grebe
	Podilymbus podiceps	pied-billed grebe
	Phalacrocorax auritis	double-crested carmorant
	**Ardea herodias*	great blue heron
	Nyctanassa violacea	black-crowned night heron
	Leucophoeyx thyla	snowy egret
	Botaurus lentiginosus	American bittern
	Plegadis chihi	white-faced ibis
	Olor columbianus	whistling swan
	Olor luccinator	trumpeter swan
	**Branta canadensis*	Canada goose
	**Anas plalyrhynchos*	mallard
	**Anas strepera*	gadwall
	**Anas acuta*	pintail
	**Anas carolinensis*	green-winged teal
	**Anas descars*	blue-winged teal
	Anas Americana	cinnamon teal
	Mareca americana	American widgeon
	Spatula clypeala	Shoveler
	Mareca penelope	European widgeon
	**Aythya americana*	redhead
	Aythya valisineria	canvasback
	Aythya collaris	ring-necked duck
	Aythya marila	greater scaup
	Aythya affinis	lesser scaup
	Bucephala clangula	common goldeneye
	Bucephala albeala	bufflehead
	Bucephala islandica	barrow's goldeneye
	Oxyura jamiiansis	ruddy duck
	Lophodytes cucullatus	hooded merganser
	**Hergus merganser*	common merganser
	**Nergus serrator*	red-breasted merganser
	Cathartes aura	turkey vulture
	Accipiter gentillis	goshawk
	Accipiter cooperii	cooper hawk
	Accipiter striatus	sharp-shinned hawk
	**Buteo borealis*	red-tailed hawk
	Buteo swainsoni	Swainson's hawk
	Buteo harlani	Harlan's hawk
	Buteo lagopus	rough-legged hawk
	Buteo regalis	ferrugineous hawk
	**Aquila chrysaetos*	golden eagle
	Haliaeetus leucocephalus	bald eagle
	Circus cyaneus	marsh hawk
	Pandion haliaetus	osprey
	Falco mexicanus	prairie falcon
	Falco peregrinus	peregrine falcon
	Falco columbarius	pidgeon hawk
	Falco sparnerius	sparrow hawk
	Falco rusticolus	gyrfalcon
	Dendragapus obscurus	blue grouse
	Bonasa umbellus	ruffed grouse
	**Centrocercus urophasionus*	sage grouse
	Perdix perdix	Hungarian partridge
	Alectoris graeca	chuckar
	Phasianus colchicus	ring-necked pheasant
	Grus canadensis	sandhill crane
	Rallus limicola	Virginia rail
	Porzana carolina	sora rail
	Coturnicops novaboracensis	yellow rail
	Fulica americana	American coot
	Charadrius semipalmatus	semipalmated plover
	Charadrius alexandrinus	snowy plover
	Charadrius vociferus	killdeer

WILDLIFE TYPE	SCIENTIFIC NAME	COMMON NAME
Birds, Continued	*Eupoda montana*	mountain plover
	Squatarola squatarola	black-bellied plover
	Capella gallinago	common snipe
	Numenius phaeopus	long-billed curlew
	**Bartramia longicauda*	upland plover
	Actitis macularia	spotted sandpiper
	Tringa solitaria	solitary sandpiper
	Catoptrophorus semipalmatus	willet
	Totanus melanoleucus	greater yellowlegs
	Totanus flauipes	lesser yellowlegs
	Erolia fuscicollis	white-rumped sandpiper
	Erolia bairdii	Baird's sandpiper
	Erolia minutilla	least sandpiper
	Limnodromus griseus	short-billed dowitcher
	Limnodromus scolopaceus	long-billed dowitcher
	Micropalama himantopus	stilt sandpiper
	Ereunetes pusillus	semipalmated sandpiper
	Ereunetes mauri	western sandpiper
	Limosa fedoa	marbled godwit
	Crocethia alba	sanderling
	Recurvirostra americana	American avocet
	Himantopus mexicanus	black-necked stilt
	Steganopus tricolor	Wilson's phalarope
	Lobipes lobatus	northern phalarope
	Larus argentatus	herring gull
	Larus delawarensis	ring-billed gull
	Larus pipixcan	Franklin's gull
	Larus philadelphia	Bonaparte's gull
	Larus californicus	California gull
	Sterna fosteri	Forster's tern
	Chlidonias niger	black tern
	Columba livia	rock dove or pigeon
	Zenaidura macroura	mourning dove
	Coccyzus americanus	yellow-billed cuckoo
	Tyto alba	barn owl
	Otus asio	screech owl
	Otus flammaolus	flammulated owl
	**Bubo virginianus*	great-horned owl
	Nyctea scandiaca	snowy owl
	Surnia ulula	hawk owl
	Glaucidium gnoma	pygmy owl
	Speatyto cunicularia	western burrowing owl
	Strix nebulosa	great-grey owl
	Asio otus	long-eared owl
	Asio flammeus	short-eared owl
	Aegolius acadicus	saw-whet owl
	**Philaenoptilus nutlalli*	poor-will
	Chardeiles minor	common nighthawk
	Chardeiles acutipennis	lesser nighthawk
	Aeronautes saxatalis	white-throated swift
	Archilochus alexandri	black-chinned hummingbird
	Selasphorus platycercus	red-tailed hummingbird
	Selasphorus rufus	rufous hummingbird
	Stellula calliope	calliope hummingbird
	**Megaceryle alcyon*	belted kingfisher
	Bombycilla garrulus	Bohemian waxwing
	Bombycilla cedrorum	cedar waxwing
	Lanius excubitor	northern shrike
	Lanius ludonicianus	loggerhead shrike
	Sturnus vulgaris	starling
	**Colaptes cafer*	red-shafted flicker
	Asyndesmus lervis	Lewis's woodpecker
	Sphyrapicus varius	yellow-bellied sapsucker
	Sphyrapicus throideus	Williamson's sapsucker
	Dendrocopos pubescens	Downy woodpecker
	Dendrocopos villosus	hairy woodpecker
	Picoides tridactylus	northern three-toed woodpecker
	Tyrannus tyrannus	eastern kingbird
	Tyrannus verticalis	western kingbird

WILDLIFE TYPE	SCIENTIFIC NAME	COMMON NAME
Birds, Continued	*Sayornis saya*	Say's phoebe
	Empidonax traillii	Traill's flycatcher
	Empidonax minimum	least flycatcher
	Empidonax hammondii	Hammond's flycatcher
	Empidonax obserholseri	dusky flycatcher
	Contopus sordidulus	western wood pewee
	Nuttallornis borealis	olive-sided flycatcher
	**Eremophila alpestris*	horned lark
	**Tachycineta thalassina*	violet-green swallow
	Iridoproene bicolor	tree swallow
	Riparia riparia	bank swallow
	**Hirundo rustica*	barn swallow
	**Petrochelidon pyrrhonota*	cliff swallow
	Progne subis	purple martin
	Stelgidopteryx ruficollis	rough-winged swallow
	Perisorous canadensis	grey jay
	Cyanocitta cristata	blue jay
	Cyanocitta stelleri	Steller's jay
	Aphelocoma caerulescens	scrub jay
	Gymnarhinus cyanocephalus	pinyon jay
	Pica pica	black-billed magpie
	Corvus corax	common raven
	Corvus brachythynchos	common crow
	Nucifraga columbiana	Clark's nutcracker
	Parus atricapillus	black-capped chickadee
	Parus gambeli	mountain chickadee
	Sitta carolinensus	white-breasted nuthatch
	Sitta canadensis	red-breasted nuthatch
	Certhia familiaris	brown creeper
	Cinclus mexicanus	dipper
	Troglodytes aedon	house wren
	Thryomanes bewickii	Bewick's wren
	Telmatodytes palustris	long-billed marsh wren
	Catherpes mexicanus	canhon wren
	Salpinctes obsoletus	rock wren
	Mimus polyglottus	mockingbird
	Dumetella carolinensis	catbird
	Oreascoptes montanus	Sage thrasher
	Turdus migratorius	robin
	Hylocichla guttata	hermit thrush
	Hylocichla ustulata	Swainson's thrush
	Hylocichla fuscescens	veery
	Sialia mexicana	western bluebird
	Sialia currocoides	mountain bluebird
	Hyadestes townsendi	Townsend's solitarie
	Regulus satrapa	golden-crowned kinglet
	Regulus calendula	ruby-crowned kinglet
	**Vireo solitarius*	solitary vireo
	Vireo olivaceus	red-eyed vieo
	Vireo gilvus	warbling vieo
	Ninotilta varia	black and white warbler
	Verminara celata	orange-crowned warbler
	Dendroica petechia	yellow warbler
	Dendroica coronata	myrtle warbler
	Seiurus noneboracensis	northern waterthrush
	Oporornis tolmiei	MacGillivrays warbler
	Geothlypic trichas	yellowthroat
	Icteria virens	yellow-breasted chat
	Wilsonia pusilla	Wilson's warbler
	Setophaga ruticilla	American redstart
	Passer domestiaes	house sparrow
	Dolichonyx oryzinorus	bobolink
	Sturnella neglecta	western meadowlark
	Xanthocephalus xanthocephalus	yellow-headed blackbird
	Agelaues phoeniceus	red-winged blackbird
	Icterus bullockii	Bullock's oriole
	**Euphyagus cyanocephalus*	Brewer's blackbird
	Quiscalus quiscula	common grackle
	**Molothrus ater*	brown-headed cowbird

WILDLIFE TYPE	SCIENTIFIC NAME	COMMON NAME
Birds, Continued	*Piranga ludoviciana*	western tanager
	Pheucticus melanocephalus	black-headed grosbeak
	Guiraca caerulea	blue grosbeak
	Hesperiphona vespertina	evening grosbeak
	Pinicola enucleator	pine grosbeak
	Passerina amoena	lazuli bunting
	Calamospiza melanocorys	lark bunting
	Plectrophenax nivalis	snow bunting
	Carpodacus cassinii	Cassin's finsh
	Carpodacus mexicanus	house finsh
	Leucosticte tephrocotis	grey-crowned rosy finch
	Leucosticte atrata	black rosy finch
	Acanthis flammea	common redpoll
	Spinus pinus	pine siskin
	Spinus tristis	American goldfinch
	Spinus psaltria	lesser goldfinch
	Loxia curvisastra	red crossbill
	Chlorura chlorura	green-tailed towhee
	Pipilo erythrophthalmus	rufous-sided towhee
	Junco hyemalis	dark-eyed junco
	Passerculus sandwichensis	Savannah sparrow
	Ammondramus savannarum	grasshopper sparrow
	Posecetes gramineus	vesper sparrow
	Calamospiza melanocorys	lark sparrow
	Amphispiza belli	sage sparrow
	Spizella arborea	tree sparrow
	Spizella passerina	chipping sparrow
	Spizella breweri	Brewer's sparrow
	Spizella pallida	clay-colored sparrow
	Zonotrichia querula	Harris's sparrow
	Zonotrichia leucophrys	white-crowned sparrow
	Passerella iliaca	fox sparrow
	Melospiza lincolnii	Lincoln's sparrow
	Melaspiza melodia	song sparrow
	Phynchophanes mccoionii	McCown's longspur
	Calcarius ornatus	chestnut-collared longspur
Fish	*Prosopium williamsoni*	mountain whitefish
	Salmo clarki	cutthroat trout
	**Salmo gairdneri*	rainbow trout
	Salmo aguabonita	golden trout
	**Salmo trutta linnaeus*	brown trout
	Salvelinus namaycush	lake trout
	Salvelinus fontinalis	brook trout
	Thymallus arcticus	grayling
	Cyprinus carpio	carp
	Semotilus atromaculatus	creek chub
	**Gowesius plumbeus*	lake chub
	Hybopsis gracilis	flathead chub
	**Rhinichthys cataractae*	longnose dace
	Hetropis dorsalis	bigmouth shiner
	Hetropsis stramincus missuriensis	sand shiner
	Pimephales promelas	flathead minnow
	Hoxostoma macrolepidotum	northern redhorse
	**Catostomus commersoni*	white sucker
	**Catostomus catostomus*	longnose sucker
	**Catostomus platyrhynchus*	mountain sucker
	Ictalurus melas	black bullhead
	Ictalurus punctatus	channel catfish
	Noturus flavus	stonecat
	Lota lota	burbot (or ling)
	Fundulus bansae	plains killifish
	Micropterus salmoides	largemouth bass
	Lepomis machrochirus	bluegill
	Pomoxis nigromaculatus	black crappie
	Stizostedion canadense	sauger
	Stizostedion vitreum vitreum	walleye
	Perca flavescens	yellow perch
	Etheostoma exile	Iowa darter
	None[1]	splake

*Indicates species known or believed to exise in Sweetwater Canyon.
[1]Hybrid of Mackinaw (lake) trout and brook trout.

TABLE C-2
VEGETATION
FREMONT COUNTY, WYOMING

VEGETATIVE TYPE	SCIENTIFIC NAME	COMMON NAME
Trees	*Abies lasiocarpa*	Subalpine fir
	Acer glabrum	Rocky Mountain maple
	Acer negundo	Boxelder
	Alnus spp.	Alder
	Betula glandulosa	Bog birch, Dwarf birch
	Betula occidentalis	Water birch
	Betula papyrifera	Paper birch
	Chelopsis spp.	Desert willow
	Cornus stolonifera	Redosier dogwood
	Crataegus chrysocarpa	**
	Crataegus douglasii	**
	Crataegus erythropoda	**
	Crataegus rivularis	**
	Crataegus succulenta	**
	Fraxinus pennsylvanis	Green ash
	Juniperus communis	Common juniper
	Juniper osteosperma	Utah juniper
	Juniperus scopulorum	Rocky Mountain juniper
	Picea pungens	Blue spruce
	Picea Engelmanni	Engelmann spruce
	Picea glauca	White spruce
	Pinus contorta	Lodgepole pine
	Pinus albicaulis	Whitebark pine
	Pinus flexilis	Limber pine
	Pinus ponderosa	Ponderosa pine
	Populus balsamifera	Balsam popular
	Populus acuminata	Lanceleaf cottonwood
	Populus augustifolia	Narrow leaf cottonwood
	Populus sargentii	Plains cottonwood
	Populus trichocarpa	Black cottonwood
	Populus tremuloides	Quaking aspen
	Pseudotsuga menziesii	Douglas fir
	Sorbus scopulina	Mountain ash
Shrubs	*Amelanchier alnifolia*	Western serviceberry
	Amelanchier utahensis	Serviceberry
	Arctostaphylus uva-ursi	Bearberry
	Artemisia arbuscula	Low sagebrush
	Artemisia cana cana	Silver sagebrush
	Artemisia cana bolanderi	Silver sagebrush
	Artemisia frigida	Fringed sagebrush
	Artemisia nova	Black sagebrush
	Artemisia longiloba	**
	Artemisia pedatifida	Birdfoot sage; Brown sagebrush
	Artemisia ludoviciana	Prairie sage
	Artemisia spinescens	Budsage
	Artemisia tridentata tridentata	Basin big sagebrush
	Artemisia tridentata vaseyana	Mountain big sagebrush
	Artemisia tridentata wyomingensis	Wyoming big sagebrush
	Artemisia tripartita rupicola	3-tip sagebrush
	Atriplex canescens	4-wing saltbrush
	Atriplex confertifolia	Shadscale
	Atriplex corrugata	Mat saltbrush
	Atriplex nuttallii	Saltbush; Nuttall'v saltbrush
	Ceanothus velutinus	Snowbrush
	Cercocarpus ledifolius	Curlleaf mt. mahogeny
	Cercocarpus montanus	Mountain Mahogany
	Crataegus rivularis	River hawthorn
	Chrysothamnus nauseosus	Rubber rabbitbrush
	Chrysothamnus nauseosus graveolens	Big rabbitbrush
	Chrysothamnus viscidiflorus	Low rabbit brush; Green rabbitbrush
	Eriogonum umbellatum	Shrubby eriogomum
	Eurotia lanata	Winterfat, Whitesage
	Gaultheria hemifusa	Creeping wintergreen
	Grayia spinosa	Spiny hopsage
	Gutierrezia sarathrae	Broom snakeweed
	Holodiscus discolor	Rock spiree
	Leptodactylon pungens	Granite gilia
	Mahonia repens	Oregon grape
	Opuntia polyacantha	Plains pricklypear
	Opuntia fragilis	**
	Pachistima myrsinites	Mountain-lover
	Potentilla fruticosa	Shrubby cinquefoil
	Potentilla gracilis	Northwest cinquefoil
	Potentille palustris	Marsh cinquefoil
	Prunus malacocarpa	Chokecherry
	Prunus virginiana	Chokecherry
	Purshia tridentata	Bitterbrush
	Ledum glandulosum	Laborador tea
	Rhus tribolata	Skunkbush sumac
	Rhus radicans	Poison ivy
	Ribes aureum	Golden current
	Ribes cereum	Squaw current; Wax currcat
	Ribes inerme	Whitestem gooseberry
	Ribes setosum	Missouri gooseberry
	Ribes lacustre	Prickly current
	Ribes viscosissimum	Sticky current
	Rosa spp.	Wild rose
	Rubus parviflorus	Thimbleberry
	Salix spp.	Willow
Shrubs, Continued	*Sarcobatus vermiculatus*	Black greasewood
	Shepherdia canadensis	Russet buffaloberry
	Sorbus scobulina	Mountain ash
	Spiree splendens	Spirea
	Symphoricarpos oreophilus	Mountain snowberry
	Symphoricarpos albus	Snowberry
	Symphoricarpos albas	Whortle snowberry
	Symphoricarpos occidentalis	Western snowberry
	Tetradymia canescens	Gray horsebrush
	Tetradymia spinosa	Shortspine horsebrush
	Vaccinium ovalifolium	Blueberry
	Vaccinium scoparium	Grouse whortleberry
	Yucca glauca	Small soapweed
Forbs	*Achillea lanulosa*	Yarrow
	Actinea acaulis	Stemless actinea
	Agoseris glauca	Pale agoseris
	Allium spp.	Wild onion
	Alisma plantago-aquatica	Water plantain
	Arceuthobium americanum	Dwarf mistletoe
	Actaea rubra	Bameberry
	Aconitum columbianum	Monkshood
	Amaranthus retroflexus	Red root pigweed
	Ambrosia trifida	Giant ragweed
	Antennaria arcuata[1]	Box pussytoes
	Antennaria spp.	Pussytoes
	Anemone patens	Pasque flower
	Aplopappus spp.	Goldenweed
	Aquilegia coerula	Colorado columbine
	Arenaria hookeri	Hookar sandwort
	Arabis holboellii	Holboel rockcress
	Arabis drummondii	Drummond rockcress
	Arctium minus	Common burdock
	Argemone polyanthemos	Prickly poppy
	Arnica cordifolia	Heartleaf arnica
	Arnica fulgens	Orange arnica
	Arnica parryi	Rayless arnica
	Arnica sororia	Arnica
	Artemisia frigida	Fringed sage
	Artemisia campestris	Field sagewort
	Artemisia gnaphalodes	**
	Artemisia ludoviciana	Sagewort
	Artemisia porteri[2]	Porter sagebrush
	Asclepias speciosa	Showy milkweed
	Aster engelmanni	Engleman aster
	Aster foliaceus	Leafybract aster
	Astragalus spp.	Milkvetch, Loco, Locoweed
	Balsamorhiza hirsuta	Hairy balsam root
	Balsamorhiza hookeri	Cutleaf balsam root
	Balsamorhiza sagittata	Arrowleaf balsam root
	Brodiaea douglasii	Wild hyacinty
	Calochortus nuttalli	Sego lily
	Camassia quamash	Camas
	Capsella bursa-pastoris	Shepherd purse
	Camelina microcarpa	Littleseed falseflax
	Campanula rotundifolia	Harebell
	Cerduus nutens	Musk thistle
	Castilleja linariaefolia	Wyoming paintbrush
	Castilleja sulphurea	Yellow paintbrush
	Cerastium arvense	Field chickweed
	Centaurea repens	Russian knapweed
	Chaenactis douglasii	False yarrow
	Chenopodium album	Lambsquarter
	Chorispora tenella	Blue mustard
	Chrysopsis villosa	Hairy goldaster
	Cirsium spp.	Thistle
	Clematis columbiana	Clematis
	Cleome lutea	Yellow bee plant
	Cleome serrulata	Rocky Mountain bee plant
	Collinsia parviflora	Monkey flower, Blue-eyed Mary
	Commandra pallida	Bastard toad flax
	Convolvolus arvensis	Field bindweed
	Cordylanthus ramosus	Bushy birdbeak
	Crepeis acuminata	Taperton hawksbeard
	Crepsis elegans	Showy hawksbeard
	Crepsis runcinata	Hawksbeard
	Cryptantha bradriana	Mineracandle
	Cystopteris fragilis	Bladder-fern
	Calypso bulbosa	Fairy slipper
	Caltha leptosepela	Marsh marigold
	Ceratophylum demersum	Coontail
	Delphinium bicolor	Low larkspur
	Delphinium geyeri	Plains larkspur
	Delphinium nelsoni	Spring larkspur
	Delphinium occidentale	Tall larkspur
	Descurainia pinneta	Pinnate tansymustard
	Dicentra uniflora	Steersbead
	Dodecatheon pauciflorum	Shooting star
	Dodecatheon pulchellum	Dark throat shooting star
	Disporum trachycarpum	Fairy bells
	Drabe oligosperma	Draba
Forbs, Continued	*Erigeron caespitosus*	Tufted fleabane
	Erigeron compositus	Cutleaf daisy
	Erigeron pumilus	Shaggy daisy
	Epilobium augustifolium	Firewood
	Erysimum capicatum	Wallflower
	Eriogonum spp.	Buckwheat
	Euphorbia asula	Leafy spurge
	Fragaria spp.	Wild strawberry
	Franseria discolor	Skeletonleaf bursage
	Frasers speciosa	Green gentian
	Fritillaria pudisa	Yellow fritillary
	Galium boreale	Northern bedstraw
	Geranium spp.	Wild geranium
	Geum spp.	Avens
	Gilia aggregata	Scarlet gilia
	Glycyrrhize lepidota	Wild licorice; Licorice root
	Grindelia squarrosa	Curlycup gumweed
	Hackelia spp.	Stickseed; Wild forget-me-not
	Halogeton glomeratus	Halogeton
	Haplopappus acaula	Stemless goldenweed
	Hedysarum occidentale	Sweetvetch
	Helianthus oiniflora	Little sunflower
	Helienthus annus	Sunflower
	Heracleum lanatum	Cow parsnip
	Hydrophyllum spp.	Waterleaf
	Iris missouriensis	Rocky Mountain iris, blue flag iris
	Isatis tinetoria	Dyer's wead
	Iva axillaris	Poverty weed
	Kochia scoparia	Fireweed
	Lactuca pulchella	Chicory lettuce
	Lactuca scariola	Prickly lettuce
	Lappula spp.	Stickseed
	Lepidium spp.	Pepperweed
	Lepidium perfoliatum	Yellow weed; Yellowflower; Pepperweed
	Leptodactylon pungens	**
	Lewisia rediviva	Bitterroot
	Lesquerella fremontii[3]	Fremont's bladderpod
	Lesquerella spp.	Bladder pod
	Linum lewisii	Blueflax; Lewis flax
	Lithophragma spp.	Prairiestar
	Lithospermum incisum	Narrowleaf puccon
	Lithosperum ruderale	Waynside gromwell
	Lithnosperum arvense	Corn gromwell; Stone seed
	Lomatium ambiguum	Wyeth biscuitroot
	Lomatium macrocarpum	Biscuitroot
	Lomatium triternatum	**
	Lupinus spp.	Lupine
	Lygodesmia juncea	Rushpink
	Machaeranthera canescens	Hoary aster
	Machaeranthera canescens	Woody aster
	Machaeranthera tanacetifolia	Tansyleaf aster
	Melilotus alba	White sweetclover
	Melilotus officimalis	Yellow sweetclover
	Medicago hispada	Burrclover
	Mentha spp.	Mint
	Mentzelia decapetala	Blazing star
	Mentzelia laevicaulis	Blazing star
	Mertensia ciliata	Mountain bluebell
	Mertensia oblongifolia	Bluebell
	Mertensia verdis	Bluebell
	Monardia Menthaefolia	Horsemint
	Monolepis nuttalliana	Monolepis
	Nuphar polysepalum	Yellow pondlily
	Oenothera caespitosa	Evening primrose
	Oenothera heterantha	Primrose
	Orthocarpus luteus	Owl clover
	Oxytropis spp.	Crazyweed
	Oxytropis sericea	Whiteloco
	Parnassia fimbriata	Grass-of-Parnassus
	Paronychia sessilifolia	Whitlow-wort
	Pedicularis groenlandica	Elephanthead
	Penstemon paysoniorum[3]	Payson penstemon
	Penstemon spp.	Penstemon
	Penstemon rydbergii	Panstemon
	Peridaridia gairdneri	Yampah
	Phacelia sericea	Silky phacelia
	Phacelia hastata	Silver leaf phacelia
	Phlox hoodii	Hoods phlox
	Phlox longifolia	Prickly phlox
	Phlox multiflora	White phlox
	Plantago patagonica	Wooly Indianwheat
	Plantago lanceolata	Buckhorn plantain
	Plantago purshii	Wooly Indianwheat
	Plantago spinescens	Spiney plantain
	Plantago major	Broadleaf plantain
	Polygonum natans	Ladysthumb
	Polygonum aviculare	Prostrate knotweed
	Polygonum bistortoides	American bistort
	Portulacea oleracea	Purslane
Forbs, Concinued	*Potamogeton filliformis*	Narrowleaf pondweed
	Potamogeton pectinatus	Sego pondweed
	Potamongeton spp.	Pondweed
	Potentilla gracilis	Cinquefoil
	Psoralea tenuiflora	Slim scrufpea
	Pterospora andromedea	Pinedrops
	Ranunculus gleberrimus	Sagebrush buttercup
	Ranunculus spp.	Buttercup
	Ratibida columnifera	Coneflower
	Rudbeckia occidentalis	Western coneflower
	Rumex spp.	Dock
	Rumex acetosella	Dock
	Salsola kali	Russian thistle
	Sedum spp.	Sedum
	Sedum lanceolatum	Stonecrop
	Sedum stenopetalum	Stonecrop
	Selaginella densa	Spikemoss
	Senecio spp.	Senecio
	Sisymbrium altissimum	Tumblemustard
	Sisymbrium linifolium	Hedgemustard
	Smilacina racemosa	False solomonseed
	Smilacina stellata	Lily-of-the valley; Starry false Soloman's seal
	Sisyrinchium inflatum	Blue-eyed grass
	Solanum rostratum	Buffaloburr
	Sonchus spp.	Thistle
	Sophis incisa	Western tansymustard
	Solidago spp.	Goldenrod
	Sphaeralcea coccinea	Scarlett globemallow; Scarlett mellow
	Taraxacum spp.	Dandelion
	Thalaspi arvense	Field pennycress
	Thelictrum spp.	Meadow rue
	Thermopsis montana	False lupine; Golden pea; Thermopsis
	Thermopsis rhombifolia	Buffalo bean
	Townsendia spathulata[2]	Sword townsendia
	Tragopogon dubius	Salsify
	Trifolium spp.	Clover
	Trifolium gymnocarpon	Holly leaf clover
	Tragopogon pratensis	Meadow salsify
	Verbascum thapsus	Mullein
	Vicia americana	American vetch
	Vicia cracca	Vetch
	Viola spp.	Wild Violet
	Viola nuttellii	Yellow violet
	Woodsia oryana	Woodsia (fern)
	Wyethia amplexicaulis	Mules ears
	Xanthium strumarium	Cocklebur
	Zigadenus spp.	Death camas
Grasses	*Agropyron albicans*	Montana wheatgrass
	Agropyron cristatum	Crested wheatgrass
	Agropyron dasystachyum	Thickspike wheatgrass
	Agropyron desertorium	Desert wheatgrass
	Agropyron intermedium	Intermediate wheatgrass
	Agropyron repens	Quackgrass
	Agropyron riparium	Streambank wheatgrass
	Agropyron smithii	Western wheatgrass
	Agropyron spicetum	Bluebunch wheatgrass
	Agropyron trachycaulum	Slender wheatgrass
	Agrostis alba	Redtop bent
	Agrostis exerata	Spike bent
	Agrostis palustris	Creeping bent
	Agrostis scabra	Rough bent
	Alopecurus aequalis	Shottawo foxtail
	Andropogon scoparius	Little bluestem
	Aristida fedieriana	Pendlers 3-awn
	Aristida longiseta	Red 3-awn
	Beckmannia syzigaohne	American sloughgrass
	Bouteloua gracilis	Blue grama grass
	Bromus anomalus	Nodding brome
	Bromus inermis	Smooth brome
	Bromus japonicus	Japanese brome
	Bromus marginetus	Mountain brome
	Bromus polyanthus	Polyanthus brome
	Bromus tectorum	Cheatgrass brome
	Catabrosa aquatica	Brookgrass
	Calamagrostis canadensis	Bluejoint reedgrass
	Calamagrostis inexpansa	Northern reedgrass
	Calamagrostis montanensis	Plains reedgrass
	Calamovilfa longifolia	Prairie sandreed
	Danthonia intermedia	Timber outgrass
	Danthonia unispicata	One-spike oatgrass
	Dactylis glomerata	Orchardgrass
	Deschampsia caespitosa	Tufted hairgrass
	Distichlis spicata	Inland saltgrass
	Distichlis stricta	Saltgrass
	Echinochloa cusgalli	Watermillet
	Elymus canadensis	Canadian wild rye
	Elymus cinerus	Basin wild rye
Grasses, Continued	*Elymus glaucus*	Blue wild rye
	Festuca idahoensis	Idaho fescue
	Festuca occidentalis	Western fescue
	Festuca ovina	Sheep fescue
	Glyceria striata	Fowl mannagrass
	Hesperchloa kingii	King spikefescue
	Hierochloe odorata	Sweetgrass
	Hordeum caespitosum	Bobtail barley
	Hordeum jubatum	Foxtail barley
	Koeleria crincata	Prairie junegraes
	Melica bulbosa	Onion melic
	Muhlenbergia asperfolia	Alkali muhly
	Muhlenbergia racemosa	Marsh muhly
	Muhlenbergia richardsonis	Mat muhly
	Oryzopsis exigua	Little ricegrass
	Oryzopsis hymenoides	Indian ricegrass
	Panicum capillare	Witchgrass
	Phleum alpinum	Alpine timothy
	Phleum pretense	Common timothy
	Phragmites communis	Common reed
	Poa ampla	Big bluegrass
	Poa canbyi	Canby bluegrass
	Poa cuaickii	Cusick bluegrass
	Poa fendleriana	Fendlers bluegrass
	Poa interior	Inland bluegrass
	Poa nervosa	Wheeler bluegrass
	Poa nevadensis	Nevada bluegrass
	Poa pratensis	Kentucky bluegrass
	Poa pattersonii	Patterson bluegrass
	Poa reflexa	Nodding bluegrass
	Poa sandbergii	Sandberg bluegrass
	Poa secunda	Sandberg bluegrass
	Puccinellia airoides	Alkaligrass
	Schedonnardus paniculatus	Tumblegrass
	Sitanion hystrix	Bottlebrush squirreltail
	Sitanion jubatum	Big squirreltail
	Spartina gracilis	Alkali cordgrass
	Sphenopholis obtusa	Prairie wedgescale
	Sporobolus airoides	Alkali sacaton
	Sporobolus cryptandrus	Sand dropseed
	Stipa columbiana	Subalpine needlegrass
	Stipa comata	Needle and thread
	Stipa lettermanii	Letterman needlegrass
	Stipa pinctorum	Pinewoods needlegrass
	Stipa viridula	Green needlegrass
	Trisetum spicatum	Spike trisetum
	Trisetum wolfii	Wolfs trisetum
	Volpia octoflora	Six weeks fescue
Grass-like Plants	*Aranaris conjesta*	Ballhead sandwort
	Carex eleocharis	Needleleaf sedge
	Carex festivella	Ovalhead sedge
	Carex fillifolia	Threadleaf sedge
	Carex hoodii	Hood sedge
	Carex lanuginosa	Woolly sedge
	Carex douglasii	Douglas sedge
	Carex canescens	Silvery sedge
	Carex aurea	Golden sedge
	Carex aquatilis	Sedge
	Carex disperma	Sedge
	Carex microptera	Smallwing sedge
	Carex nebraskensis	Nebraska sedge
	Carex geyeri	Elk sedge
	Carex obtusata	Sedge
	Carex pantesata	Sedge
	Carex phaegracilis	Clustered field sedge
	Carex raynoldsii	Sedge
	Carex scopulorum	Sedge
	Carex vallicola	Valley sedge
	Eleocharis pauciflora	Spikerush
	Eleocharis macrostachya	Spikerush
	Eriophorum chamissonis	Cotton sedge
	Eriophorum augustifolium	Cotton sedge
	Juncus balticus	Wiregrass
	Juncus bufonius	Wiregrass
	Juncus confusus	Wiregrass
	Juncus longistylis	Wiregrass
	Juncus nodosus	Wiregrass
	Juncus ensifolius	Wiregrass
	Juncus tracyi	Wiregrass
	Scirpus paludosus	Alkali bullrush
	Scirpus microcarpus	Smallseed bullrush
	Scirpus actus	Western bullrush
	Scirpus americanus	American bullrush
	Triglochin maritima	Arrow grass
	Typha latifolia	Cattail
	Equisetum spp.	Horsetails
	Equisetum variegatum	Variegated horsetail
	Equisetum hyemale	Scouring rush
	Sparganium minimum	Bur-reed
	Sparganium multipedunculatum	Bur-reed

*Plants known or suspected to occur in the Sweetwater Wild and Scenic Study Area.
**No known common name.
[1]Proposed Endangered Species, Federal Register, Volume 41, No. 24529, June 16, 1976.
[2]Currently being reviewed for possible Threatened or Endangered Species status, Federal Register, Volume 40, No. 27887, July 1, 1975.
[3]Proposed Endangered Species, Federal Register, Volume 40, No. 27887, July 1, 1975.

TABLE D

WATER RIGHTS

MAINSTEM, SWEETWATER RIVER, AND ALL TRIBUTARIES ABOVE SPRING CREEK

REFERENCE NUMBER	STRUCTURE NAME	APPROPRIATION DATE	SOURCE	USE[1]	AMOUNT Flow--CFS	ACRES IRRIGATED	LOCATION Section	Township North	Range West
1	Rongis	04/05/84	Sweetwater River	I	1.21	85	36	30	93
2	Schoonmaker	08/01/86	Sweetwater River	I,S,D	12.88	901.4	35	29	87
3	Bothwell Sweetwater No. 2	09/01/86	Sweetwater River	I	6.77	474.18	5	29	85
4	Bothwell Sweetwater No. 2	09/01/86	Sweetwater River	I	2.99	209	5	29	85
5	Countryman No. 1	04/18/87	Sweetwater River	I	.55	40	19	29	89
6	Brown	Spring/87	Sweetwater River	I,S	1.46	104	19	29	96
7	Arnold No. 1	05/01/88	Sweetwater River	I,S	3.70	217	26	29	97
8	Bothwell Sweetwater No. 3	06/01/88	Sweetwater River	I,D	9.55	669	5	29	85
9	Arnold No. 2	June/88	Sweetwater River	I,S	.72	51	25	29	97
10	Sharlock and Marrin	1889	Sweetwater River	Preferred	1.78		28	28	101
11	Callahan	05/16/95	Sweetwater River	I	1.00	70	14	29	96
12	Riverside	08/23/95	Sweetwater River	I	.51	36	19	28	101
13	Russell	02/28/96	Sweetwater River	I	1.44	112	27	30	95
13	Russell	02/28/96	Sweetwater River	I	1.42	100	27	30	95
14	Jamerman	03/11/96	Sweetwater River	I	1.34	95	36	30	91
15	Graham and Farnsley No. 1	06/22/96	Sweetwater River	I	1.65	117	7	29	95
16	Graham and Farnsley No. 2	06/22/96	Sweetwater River	I	1.34	95	7	29	95
17	Graham	06/22/96	Sweetwater River	I	2.45	173	16	30	93
18	Countryman No. 2	04/10/97	Sweetwater River	I	1.56	111	19	29	89
19	A. R. Cowley No. 1	01/10/98	Sweetwater River	I	.86	60	13	29	89
20	McIntosh	07/14/98	Sweetwater River	I	3.70	217	8	29	90
21	Enl. Jamerman	09/21/98	Sweetwater River	I	.26	20	36	30	91
22	Miller	10/18/98	Sweetwater River	I	.30	21	14	29	89
23	Enl. Graham	12/05/98	Sweetwater River	I	1.92	135	16	30	93
24	Enl. Salmon	12/12/98	Sweetwater River	I	.42	30	27	30	93
25	Enl. Highland Branch	12/22/98	Sweetwater River	I,S,D	2.79	195	5	29	85
26	Bothwell Sweetwater No. 2								
27	Enl. Highland Branch	12/22/98	Sweetwater River	I,S,D	.79	55	5	29	85
28	Bothwell Sweetwater No. 2								
29	Enl. Highland Branch	12/22/98	Sweetwater River	I,S,D	1.01	71	5	29	85
30	Bothwell Sweetwater No. 2								
31	Craner (changed to McIntosh)	03/15/99	Sweetwater River	I	1.50	105	8	29	90
32	Enl. Rongis	12/15/99	Sweetwater River	I	1.60	76	36	30	93
33	McKinney No. 2	03/03/00	Sweetwater River	I	.13	10	7	30	93
34	McKinney No. 1	03/03/00	Sweetwater River	I	.38	27	7	30	93
35	Sheehan	03/16/00	Sweetwater River	I,S	5.64	396	4	29	92
36	South Side	01/05/01	Sweetwater River	I,S	6.16	433	5	29	92
37	Enl. A. R. Cowley	05/09/01	Sweetwater River	I	1.76	125	13	29	89
38	Enl. McIntosh	08/27/01	Sweetwater River	I	1.10	77	8	29	90
39	Enl. McIntosh	09/02/01	Sweetwater River	I	3.65	256	8	29	90
40	Enl. McIntosh	09/02/01	Sweetwater River	I	1.00	70	8	29	90
41	W. M. Cranor	09/04/01	Sweetwater River	I	.71	50	23	29	90
42	Canyon	10/03/01	Sweetwater River	I	4.71	330	11	30	94
43	Enl. Sherlock and Marrin	10/07/01	Sweetwater River	Preferred	3.85		28	28	101
44	McDowell	10/21/01	Sweetwater River	Preferred			28	28	101
45	Three Crossings	10/08/02	Sweetwater River	I	1.65	116	31	30	91
46	Enl. South Side	11/15/02	Sweetwater River	I,S	2.36	237	5	29	92
47	Enl. McIntosh	01/24/03	Sweetwater River	I	1.55	110	8	29	90
48	Enl. Canyon	02/10/03	Sweetwater River	I	1.92	135	11	30	94
49	Enl. Burnt Ranch	03/21/03	Sweetwater River	I	.90	63	27	28	100
50	Enl. Burnt Ranch	03/21/03	Sweetwater River	I	.31	22	27	28	100
51	Enl. Burnt Ranch	03/21/03	Sweetwater River	I	1.59	111	27	28	100
52	Enl. Three Crossings	01/27/04	Sweetwater River	I	1.64	115	31	30	91
53	Enl. Three Crossings	01/27/04	Sweetwater River	I	4.42	310	31	30	91
54	Enl. Three Crossings	01/27/04	Sweetwater River	I	.85	60	31	30	91
55	Enl. McDowell	09/26/04	Sweetwater River	Preferred	.50		28	28	101
56	Wyoming Central	10/24/04	Sweetwater River	I	22.10	1,548.5	13	29	89
57	Enl. Jamerman	12/27/04	Sweetwater River	I,S,D	3.04	216	36	30	91
58	Enl. Countryman	03/27/05	Sweetwater River	I	2.07	145	19	29	89
59	National	05/12/05	Sweetwater River	I,S,D	1.88	142	24	30	95
60	Enl. (W. M.) Cranor	02/26/06	Sweetwater River	I	.88	62	23	29	90
61	Enl. Sherlock and Marrin	07/27/06	Sweetwater River	I	1.30	91	28	28	101
62	Enl. Schoonmaker	09/26/06	Sweetwater River	I	13.93	975.4	19	29	86
63	Enl. National	03/16/07	Sweetwater River	I,S	.85	60	24	30	95
64	Point of Rocks	05/20/07	Sweetwater River	I	4.11	288.5	6	29	92
65	Point of Rocks	05/20/07	Sweetwater River	I	1.93	133	6	29	92
66	Frederick	11/21/08	Sweetwater River	I	3.34	234	24	30	95
67	Enl. Canyon	11/21/08	Sweetwater River	I	2.29	160	11	30	94
68	Beaver Dam	11/10/09	Sweetwater River	I	1.33	93	19	28	99
69	Emigrant Road	04/25/10	Sweetwater River	I	.77	54	6	29	92
70	Cranor Extension	04/25/10	Sweetwater River	I	.37	26	22	29	90
71	Jacob	07/02/10	Sweetwater River	I	1.76	123	23	30	95
72	Meyers	07/02/10	Sweetwater River	I	3.52	246.6	27	30	95
73	Meyers	07/02/10	Sweetwater River	I	1.46	100.2	27	30	95
74	NT	06/15/11	Sweetwater River	I,S	2.17	152	34	30	91
75	Enl. National	08/16/11	Sweetwater River	I,S	.31	22	24	30	95
76	Miller	05/06/12	Sweetwater River	I	1.80	126	6	29	95
77	Enl. Three Crossings	08/30/12	Sweetwater River	I,S,D	.83	58	31	30	91
78	Enl. Three Crossings	08/30/12	Sweetwater River	I,S,D	1.18	83	31	30	91
79	Enl. No. 2 Schoonmaker	01/07/13	Sweetwater River	I	3.00	209.8	35	29	87
80	Enl. Beaver Dam	06/12/15	Sweetwater River	I,S	1.01		71	19	28	99
81	Enl. Point of Rocks	07/16/15	Sweetwater River	I	1.90		133	6	29	92
82	Enl. Point of Rocks	07/16/15	Sweetwater River	I	.43		30	6	29	92
83	Enl. Miller	11/01/15	Sweetwater River	I	1.57		110	6	29	95
84	Enl. Graham and Farnsley No. 1	12/27/15	Sweetwater River	I	.97		68	7	29	95
85	Enl. Russell	12/28/15	Sweetwater River	I	.93		65	27	30	95
86	Enl. Brown	11/20/16	Sweetwater River	I	.54		38	19	29	96
87	Enl. Mayers	06/22/17	Sweetwater River	I,D	1.51		106	27	30	95
88	Enl. Miller	08/10/17	Sweetwater River	I,S,D	.11		7.5	6	29	95
89	Enl. A. R. Cowley No. 1	02/27/19	Sweetwater River	I,S,D	3.70		259	13	29	89
90	Enl. A. R. Cowley No. 1	04/05/20	Sweetwater River	I,S,D	1.00		70	13	29	89
91	Enl. Burnt Ranch	06/21/20	Sweetwater River	I	1.64		115	27	28	100
92	Independent	02/14/21	Sweetwater River	I	.71		50	33	30	95
93	Enl. Emigrant Road	06/20/21	Sweetwater River	I	.53		37	6	29	92
94	Enl. Burnt Ranch	07/13/21	Sweetwater River	I,S,D	1.31		92	27	38	100
95	Producers and Refiners Corp. 2-inch Water Line	09/04/23	Sweetwater River	D, Pumping	0.48			5	29	85
96	Hay Enl. of McDowell	08/14/26	Sweetwater River	I,S, and Supply Ditch	S.S.[2]		320	28	28	101
97	Pacific No. One Reservoir	08/14/26	Sweetwater River	I,S		106.91		1	27	102
98	Enl. Independent	08/26/26	Sweetwater River	I,S,D	2.14		150	33	30	95
99	The Jacob	02/14/27	Sweetwater River	I	2.35		164.44	35	30	93
100	Koehler	09/20/35	Sweetwater River	I,S,D	.69		48	10	30	94
101	Koehler	09/20/35	Sweetwater River	I,S,D	.14		10	10	30	94
102	Pacific No. Two Reservoir	08/14/26	Sweetwater River	I,S		1,394.21		33	27	102
103	Wagers	07/28/10	Spring	I,S,D	.045		3.5	18	28	97
104	Overlaid Springs	07/25/01	Spring	Min.	.26			34	29	98
105	S. P. Harris	08/12/04	Lewiston Slough	I	.72		51	26	28	99
106	Rock Creek	1884	Rock Creek	Min., Mil.	75.70			2	29	100
107	Carpenter	12/09/39	Rock Creek	I,S,D	S.S.[2]		304.5	28	29	99
108	Upper Rock Creek Reservoir	11/19/56	Rock Creek	Ind.		1,457.5		27	30	100
109	First Enl. Upper Rock Creek Reservoir	07/18/58	Rock Creek	Ind.		1,342.3		27	30	100
110	Flader Pipeline	06/25/31	Flader Spring	Min., Mil., D	.50			6	29	99
111	Gustavsen Water Works	11/15/32	Timba Bah Spring	S,D	.10			12	29	100
112	Geissler Pipeline	07/11/08	Two Springs	D,S				12	29	100
113	Granyea	1884	Buck and Anthony Springs	D						
114	Tabor Pipeline	08/25/00	Tabor Spring	D, Min.				14	29	100
115	Carpenter Pipeline	09/08/36	Tabor Spring	D	.16			14	29	100
116	Pipe Line	07/09/00	Springs	D, Min.				14	29	100
117	Geissler	09/04/00	Willow Creek	I,S	1.42		100	5	28	99
118	Geissler	09/04/00	Willow Creek	I,S	.35		25	5	28	99
119	Kenyon	03/21/03	Willow Creek	I,S	1.01		71	7	29	100
120	Enl. Giessler	08/03/03	Willow Creek	I,S	.52		37	5	28	99
121	New Giessler	08/03/03	Willow Creek	I,S	.91		64	5	28	99
122	New Giessler	08/03/03	Willow Creek	I,S	.28		20	5	28	99
123	Abra	07/31/11	Willow Creek	I,S	1.41		88.5	21	28	99
124	Green No. 1	07/31/13	Willow Creek	I	.54		38	25	29	100
125	Green No. 2	07/31/13	Willow Creek	I	.06		4	25	29	100
126	Oregon Trail No. 1	07/31/13	Willow Creek	I	.76		53	5	28	99
127	Oregon Trail No. 2	07/31/13	Willow Creek	I	.29		20.5	5	28	99
128	Magagna	09/10/13	Willow Creek	I	.51		35.5	32	29	99
129	Magagna	09/10/13	Willow Creek	I	.45		32	32	29	99
130	Carlson	08/22/21	Willow Creek	I,S	.50		35	26	29	100
131	Green No. 3	07/31/13	Spring Gulch	I	.14		10	30	20	99
132	Carissa Pipe Line	10/04/98	Big Hermit Creek	Min., Mil.	4.55			21	29	100
133	Daley Reservoir	12/07/07	Oregon Slough	S		2.80		30	27	100
134	Basco	06/30/09	Oregon Slough	I	.37		25.5	35	28	100
135	Bertagnolli	11/16/08	Slaughter House Gulch	I,S,D	.83		58	15	28	100
136	Rizzi	11/16/08	Springs	I	.26		18	10	28	100
137	Bob Jack	07/20/07	Fish Creek	I,S,D	1.81		127	34	29	101
138	Jornado	07/26/09	Fish Creek	I	1.36		95.8	3	28	101
139	Jornado	07/26/09	Fish Creek	I	.16		11.4	3	28	101
140	Fish Creek	06/25/10	Fish Creek	I	1.32		92.4	14	28	101
141	Enl. Riniker	06/27/02	Pine Creek	I	1.66		118	15	29	101
142	Fish Creek Supply	08/09/09	Pine Creek	Supply Ditch				36	29	101
143	Blair	10/06/10	Pine Creek	I,S,D	2.97		208	1	28	101
144	Enl. Blair	07/19/12	Pine Creek	I,S,D	.35		24.6	1	28	101
145	Roach	06/29/03	Lander Creek	I,S	2.04		143	15	29	103
146	Short	06/29/03	Lander Creek	I,S	1.05		74	24	29	103
147	Jensen No. 1	06/29/03	Lander Creek	I,S	1.64		115	6	29	103
148	Ord	06/29/03	Ord Creek	I,S	1.40		98	28	30	103
149	Long	06/29/03	Blucher Creek	I,S	.92		65	19	29	102
150	Jensen No. 2	06/29/03	Blucher Creek	I,S	2.92		205	35	30	103
151	Larson No. 1	03/26/08	Blucher Creek	I	1.11		78	26	30	103
152	Larson No. 2	03/26/08	Blucher Creek	I	1.47		103	1	29	103
153	Larson No. 3	11/29/12	Blucher Creek	I,S,D	.56		39	26	30	103
154	Larson No. 4	11/29/12	Blucher Creek	I	.28		20	1	29	103

[1]D-Domestic; I-Irrigation; Ind.-Industrial; Mil.-Milling; Min.-Mining; S-Stock; Preferred-These appropriations of water to be allowed to flow in the stream in lieu of the return flow which the stream received in the past from these rights and in exchange for water to be stored in the Upper Rock Creek Reservoir, not to exceed 2,800 acre feet.

[2]S.S.-Supplemental Supply.

APPENDIX E

Official Comments on Draft Report

WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

ED HERSCHLER
GOVERNOR

July 25, 1978

Honorable Cecil D. Andrus
Secretary of the Interior
U.S. Department of the Interior
Washington, D.C. 20240

Re: L58(410)

Dear Mr. Secretary:

Thank you for the opportunity to comment upon the draft Sweetwater Wild and Scenic River Study Report. I agree with the central recommendation that the portion of the river in question not be recommended for designation in the National Wild and Scenic River System. This recommendation was made because the segment failed to meet the minimum length criterion of 25 miles.

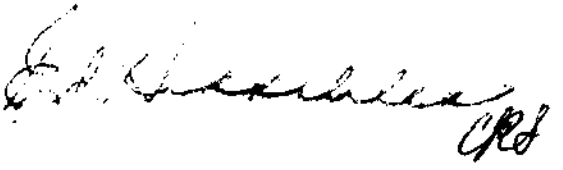
In addition, the report cites other factors which also constitute valid reasons why the segment should not be included in the national system. Scenic, recreational, geologic, archeologic, fish and wildlife values were found not to be "outstandingly remarkable." Therefore, I disagree with the recommendation that should a contiguous portion of the river be recommended for inclusion, this segment should also be included. Apparently the segment would have been ineligible under these criteria except for a finding that the historic values are "outstandingly remarkable." This finding was based upon the relationship of this area to various historic trails. However, the connection between the trails and the stream segment is tangential at best. The trails are located only in the extreme eastern part of the study corridor. I can see no way in which preservation, study, or enjoyment of the trails would be enhanced by including this segment in the Wild and Scenic River system.

I also disagree with the recommendation that Sweetwater Canyon be managed as an "Outstanding Natural Area" by the Bureau of Land Management. That seems to be at variance with the findings of this report that this is not an outstanding natural area. The restraints upon use of an "Outstanding Natural Area" seem comparable to those upon a Wild and Scenic River. If an

area is ineligible for the latter, it should also be excluded from the former.

There are some natural values worth protecting on this portion of the Sweetwater River. Those values can best be safeguarded under the present management by federal, state, and local authorities. There are no imminent or reasonably foreseen threats to the river. It is protected by its present inaccessibility, low visitation, and lack of potential for mineral, agricultural, or other development. Designation as a Wild and Scenic River or as an Outstanding Natural Area would do more harm than good by encouraging an influx of visitors through the resulting publicity. Therefore, I suggest that the area be left as it is and that no federal designations are necessary.

Yours sincerely,



EH/alj

cc: Honorable Clifford P. Hansen
Honorable Teno Roncalio
Mr. George Christopulos
Mr. Myron Goodson

ES-40991

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

410 - Room 1214

for info and file

cg-190-
8/2

August 16 1978

Honorable Cecil D. Andrus
Secretary of the Interior
Washington, D.C. 20240

Dear Mr. Secretary:

This is in reply to your June 12, 1978, letter requesting our views on your Department's proposed report on the Sweetwater River in Wyoming.

We agree with the study findings and conclusions that the 9.5-mile segment of river does not meet the criteria for inclusion in the National Wild and Scenic Rivers System. Although the criterion of 25 miles in length as a measure of eligibility is only a guideline, we believe it is fully applicable in the case of the Sweetwater. The remoteness of the river and the lack of access, along with the plan of management proposed for the Federal lands, should provide the necessary protection to the natural values associated with this short segment of river. In the event the upstream segment of the river is authorized for study, we will be pleased to participate and help evaluate the agricultural impact of a wild and scenic river designation.

We appreciate the opportunity to review your proposed report.

Sincerely,

Bob Bergland
Secretary

DEPARTMENT OF THE ARMY
OFFICE OF THE UNDER SECRETARY
WASHINGTON, D.C. 20310

19 JUL 1978

JUL 24 [illegible] '78

Honorable Cecil D. Andrus
Secretary of the Interior
Washington, D. C. 20240

Dear Mr. Secretary:

In compliance with Section 4(b) of the Wild and Scenic Rivers Act, the views of the Secretary of the Army were requested for the draft report prepared by the Heritage Conservation and Recreation Service on the Sweetwater River, Wyoming. Your correspondence was referred to as L58(410).

We have reviewed the report and, as formulated, foresee no conflict with projects or programs of this Department.

We appreciate the opportunity to review your report.

Sincerely,

Michael Blumenfeld
Deputy Under Secretary

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295

SEP 14 1978

DEPT. OF THE INTERIOR
1978 SEP 19 PM 2 20
ASSISTANT SECRETARY
FISH AND WILDLIFE
AND PARKS

Ref: 8W-EE

Mr. Robert Herbst
Assistant Secretary
Fish, Wildlife and Parks
U.S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Herbst:

The Sweetwater Wild and Scenic Draft Study Report, prepared by the Bureau of Outdoor Recreation and the Bureau of Land Management, has been reviewed with interest by my staff.

The authors of the Report evaluated the river segment using their two-step process, (1) evaluation of data, and (2) utilization of public input. (See page 1-4 of the report.) They concluded that, "Even though ineligible because of length, the river was found to be eligible in all other respects," for inclusion in the National Wild and Scenic Rivers Act. (emphasis added)

We would like to call your attention to two other statements within the report. First, in Chapter 4, page IV-3 we noted the statement concerning the river segment, "Although the river possesses excellent fish and wildlife values, the only outstanding and remarkable values found were historic qualities." (emphasis added) Second, on page IV-1 same chapter, we find that, "A river is eligible for inclusion in the system if it possesses one or more outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, or other similar values." (emphasis added) The collective intent of these statements we believe is supportive of designation under the Act for this segment of the Sweetwater River.

The only criterion that rendered the Sweetwater River study segment ineligible for inclusion under the Act was length; however, in this case we believe the length criterion to be of insufficient significance for the following reasons.

1. Congress authorized the study for only 9.5 miles,

2. The river has an outstanding historical qualification,

3. Wildlife values are excellent,

4. Water quality is suitable for primary and secondary contact recreation and fish and aquatic life propagation,

5. And, the river, if designated as wild and scenic, would be long enough to provide a meaningful experience.

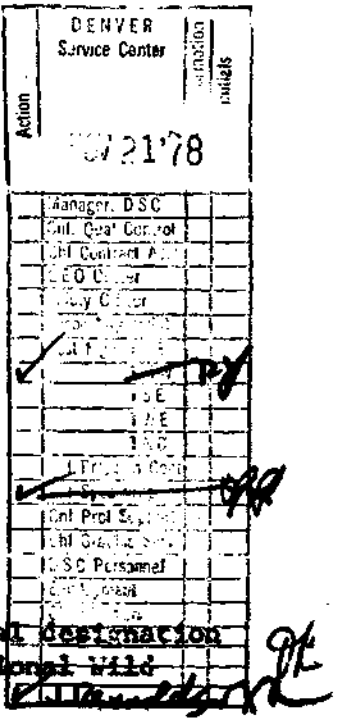
Further, the guidelines themselves allow designation in this case. The guidelines provide that "a shorter segment that possesses outstanding qualification may be included in the system" and the draft report admitted that the historic values were "outstandingly remarkable." Although the draft report does not apply the above provision allowing designation, it does so based on a determination that the historic values were of "insufficient significance." As the sole reason given in the draft report for not allowing designation of the Sweetwater River is its length, there must be adequate justification for not applying provision of the guidelines which allows designation of shorter segments.

Our primary concern is that the excellent water quality and historic environment of the study area be protected. We believe that this can best be done by designating the river segment for protection under the Wild and Scenic Rivers Act.

Sincerely yours,

Alan Merson
Regional Administrator

cc: Don Bock



L58(130)

Mr. Alan Merson
Regional Administrator
Environmental Protection Agency
1860 Lincoln Street
Denver, Colorado 80295

NOV 16 1978

Dear Mr. Merson:

Your thoughtful letter of September 14 regarding the potential designation of the Sweetwater River in Wyoming as a component of the National Wild and Scenic Rivers System is appreciated.

The points you raise with respect to the historic and fish and wildlife values in the area and the quality of water in the study segment were considered during the study team's deliberations over the desirability of excepting the river from the 25-mile limitation. It was the team's judgment that while a river may be added if it possessed one or more outstanding remarkable values, an exception should be considered only when the resource values were exceptionally outstanding clearly justifying the exception.

The study team's decision was that the major historic values were restricted to a small area at the extreme lower end of the study area where the Oregon, Mormon, and Overland Trails crossed the river. The Bureau of Land Management has withdrawn 602 acres of land in this area from mining and manages the lands to protect portions of the Oregon Trail. This action and other programs such as the National Register of Historic Sites offer the potential to adequately protect the major historic values of the area.

The excellent wildlife values identified were associated primarily with the presence, or possible presence, of several big game species including moose, deer, and antelope. While mule deer utilize the canyon as year around range, the other species utilize it as winter range or intermittently. Thus the opportunity for a river user to observe these animals during the recreation season is limited.

Over 90% of the land in the river corridor is administered by the Bureau of Land Management. That agency has proposed withdrawal of some 4,800 acres of land along the river as an Outstanding Natural Area. This includes the Oregon Trail withdrawal and nearly all of the study corridor. The preservation of the scenic values and natural wonders of an area in

their natural condition is the primary management objective in an Outstanding Natural Area. The nonfederal lands in the area are in two tracts; a 64-acre tract of State land at the upper end of the segment and a 154-acre privately owned tract involving about 0.3 miles of river at the lower end. Thus, the major portion of the segment will be in a protected land classification.

Prior to this segment of the Sweetwater River being designated for study, the Department had recommended the study of 56 miles of the Sweetwater from the source to Chimney Creek. This included the segment covered in our report. In his May 1977 Environmental Message, the President recommended that the Sweetwater from its source to Wilson's Bar be designated for study. This area is immediately upstream from that in our report. As noted in our report, if the upstream segment qualifies, the 9.5-mile segment could be included in any proposal for designation. We remain convinced that the segment proposed by the President is a potential candidate for inclusion in the National System. Accordingly, we propose to resubmit our legislative proposal.

The foregoing factors together with the lack of any immediate or reasonably foreseeable threat to the river segment led to the decision not to make an exception to the 25-mile limitation.

Your interest and cooperation in the wild and scenic rivers program is appreciated.

Sincerely yours,

(Sgd) Bob Herbst

Robert L. Herbst
Assistant Secretary for Fish and
Wildlife and Parks

bcc: Secretary's File Copy
Secretary's Reading File (2)
FW
Regional Director, Rocky Mountain Region, w/c of inc.
Manager, Denver Service Center, w/c of inc.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

OFFICE OF THE ASSISTANT SECRETARY
FOR COMMUNITY PLANNING AND DEVELOPMENT

JUL 5 1978

IN REPLY REFER TO:

Honorable Cecil D. Andrus
Secretary of the Interior
Washington, D. C. 20240

Dear Mr. Secretary:

Your letter to Secretary Harris of June 12, 1978, requesting review and comment on the draft report on the Sweetwater River in Wyoming in accordance with the provisions of the Wild and Scenic Rivers Act, has been referred to our Denver Regional Office for response.

The Regional Administrator is cognizant of the river study area and the Department's program relating thereto. If there are substantial concerns in reference to the Department's programs in the area or the findings and recommendations of the study report, you will be advised by the Regional Administrator, Ms. Betty Miller, Denver, Colorado 80802. She will therefore provide the Department's views which are to accompany the report to the President.

We appreciate the opportunity to review and comment on the proposal.

Sincerely yours,

Yvonne S. Perry
Deputy Assistant Secretary

Rec'd DSC-SDO 7/18/78

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
REGIONAL OFFICE
EXECUTIVE TOWER - 1405 CURTIS STREET
DENVER, COLORADO 80202

July 14, 1978

REGION VIII

Honorable Cecil D. Andrus
Secretary of the Interior
Washington, D.C. 20240

Dear Mr. Secretary:

This is to advise you that the Denver Regional Office, Department of Housing and Urban Development, has no substantive comments to make in regard to the "Sweetwater Wild and Scenic River Study Report" (DRAFT), dated March, 1978. We are aware that this proposal is consistent with the Missouri River Basin Water Resource Plan, dated August, 1977 (Reference: Plan Element PN 48, Platte - Niobrara Subbasin).

Sincerely,

for Robert J. Matuschek
Betty Miller
Regional Administrator

Rec'd DSC-SPO 7/20/78

DEPARTMENT OF TRANSPORTATION
REGIONAL REPRESENTATIVE OF THE SECRETARY
SUITE 1822, PRUDENTIAL PLAZA BUILDING
1050 SEVENTEENTH STREET
DENVER, COLORADO 80202

REGION VIII

July 13, 1978

U. S. Department of the Interior
National Park Service
Washington, D. C. 20240

Gentlemen:

Thank you for the opportunity to review your draft environmental impact statement concerning the Sweetwater River in Wyoming.

We have no substantive comments to make on this EIS.

Sincerely,

William C. Evans

WILLIAM C. EVANS
Senior Staff Officer

Add I + SPD 7/31/78

United States Department of the Interior

ADDRESS ONLY THE DIRECTOR, FISH AND WILDLIFE SERVICE

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

In Reply Refer To:
FWS/ES/EC

JUL 25 1978

Memorandum

To: Director, National Park Service
ACTING DEPUTY ASSOCIATE
From: Director, Fish and Wildlife Service

Subject: Sweetwater River (Wyoming) Wild and Scenic River Study--Comment on Department's Draft Report

In response to the Secretary's letter of June 12, we have reviewed the subject report and have no comments to make on it.

We appreciate the opportunity to review the report.

R. K. Robinson

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

In Reply Refer To:
EGS-Mail Stop 441

July 25, 1978

Memorandum

To: Acting Chairman, Interdepartmental Study Group on Wild and Scenic Rivers

From: Thomas J. Buchanan, Geological Survey

Subject: Sweetwater Wild and Scenic River Study Report

The Department's draft report on the Sweetwater Wild and Scenic River, Wyoming, has been reviewed by personnel in our Cheyenne, Wyoming, office. Our reviewer feels that those portions of the draft report dealing with hydrology are complete and accurate. Thank you for giving us an opportunity to review this report.

Thomas J. Buchanan

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
WASHINGTON, D.C. 20245

IN REPLY REFER TO:
Trust Services
Wildlife & Parks
459

Memorandum

JUL 31 1978

To: Director, National Park Service
Attention: Robert L. Eastman

From: ACTING Director, Office of Trust Responsibilities

Subject: Draft - Sweetwater Wild and Scenic River Study Report

This is in reply to the Secretary's June 12 letter File: L58(410) to the Administrator, Environmental Protection Agency, requesting comments on the subject document.

Following our cursory review of the study report, we are of the opinion that our trust responsibilities will not be involved. Thank you for providing us with the opportunity to review the draft.

Kenneth L. Frederick

IN REPLY REFER TO:

United States Department of the Interior

8351.2 (370)

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

Memorandum

To: Director, National Park Service

Through: Assistant Secretary, Land and Water Resources

From: Assistant Director, Resources
Bureau of Land Management

Subject: Review of Gunnison and Sweetwater Rivers Wild and Scenic River Proposals

We have reviewed the above named reports. We commend the study teams for producing two excellent reports. We agree with both reports and have no further comments.

United States Department of the Interior

BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

IN REPLY
REFER TO: 725
121.

AUG 7 - 1978

Memorandum

To: Director, National Park Service

From: Commissioner of Reclamation

Subject: Review of Draft Report on the Sweetwater Wild and Scenic River Study

This is in response to the June 12, 1978, letter from Secretary Andrus to Mr. Douglas M. Costle (copy to this office) distributing the subject draft for review.

We appreciate the opportunity to review this report. We find the report to be satisfactory, and have no objections to its release.

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration. NPS 1455