

USER REPORT  
ROCK SPRINGS NW, ROCK SPRINGS SW,  
ROCK SPRINGS NE, and ROCK SPRINGS SE, WYOMING  
NATIONAL WETLANDS INVENTORY MAPS

A. INTRODUCTION

The United States Fish and Wildlife Services National Wetlands Inventory is producing maps showing the location and classification of wetlands and deepwater habitats of the United States. The Classification of Wetlands and Deepwater Habitats of the United States by Cowardin et al. is the classification system used to define and classify wetlands. Photo interpretation conventions, hydric soils lists and wetland plant lists are also available to enhance the use and application of the classification system.

B. PURPOSE

The purpose of the notes to users is threefold: (1) to provide localized information regarding the production of NWI maps, including specific imagery and interpretation discussion; (2) to provide a descriptive crosswalk from wetland codes on the map to common names and representative plant species; and (3) to explain local geography, climate, and wetland communities.

C. STUDY AREA

Geography:

The study area covered by Rock Springs NW, SW, NE, and SE base maps is located in south Wyoming. Bailey's Ecoregion Classification (1980) describes this area as the Wyoming Basin Province (Sagebrush-Wheatgrass Section). The area is best described as plains interrupted by isolated hills and low mountains. Broad expanses of sagebrush with numerous sandy streams and dry lake beds can be found throughout. The major rivers in the study area are the Blacks Fork and the Green River. These two rivers also feed the Flaming Gorge Reservoir located in the southwestern corner of the study area. Completed in 1964, this reservoir covers an area of ninety-one miles, impounds four million acre-feet of water and has three-hundred and seventy-five mile-long shoreline. Elevations in the Wyoming Basin ranges from 6,300 feet to 8,500 feet.

**DRAFT**

Climate:

The Wyoming Basin is characterized by long, cold winters and short, hot summers. Precipitation of five inches to fourteen inches is evenly distributed with average annual temperatures ranging from 40 F to 52 F. The average growing season in the Basin is fewer than one-hundred days.

Vegetation:

The chief vegetation of the valley is sagebrush, greasewood, and a mixture of short grasses. Streams and valley bottoms are lined with willows and sedges while wet meadows support a mixture of sedges, rushes, and grasses.

Soils:

Within the study area, there are two major soil groups defined as Great Groups by the "Wyoming General Soil Map". The two groups are 1) Soils of the Mountains and Mountain Valleys, 2) Soils of the Intermountain Basins and Foothills. This classification is further broken into climatic zones and soil associations.

The mountainous area located in the southwestern portion of Rock Springs is dominated by the Soils of the Mountains and Mountain Valley Great Group. They are dark and light colored soils that are usually moist in some parts during the summer. These soils are formed from residual materials. The primary soils are Haploborolls-Agriborolls-Rock Outcrop Association and the Cryoborolls-Cryorthents Association.

The area surrounding the mountains are dominated by Soils of the Intermountain Basins and Foothills. These soils are light colored soils of basins, terraces, and fans which are dry or may be moist in some parts during the summer. These soils are formed in cool climates with spring moisture. The soil associations are formed by both transported and residual materials. Soil associations within the study area are: Torriorthents, Alkali Association; Torriorthents-Haplargids-Natrargids Association; Torriorthents-Camborthids-Haplargids Association and Torrifluvents-Fluvaquents-Halaquepts Association.

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR ROCK SPRINGS NW, SW, NE, & SE, WYOMING  
(1 of 3)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
R2UB (G,H)	Riverine, lower perennial, unconsolidated bottom	Rivers	Unconsolidated bottoms
R3UB (G,H)	Riverine, upper perennial, unconsolidated bottom	Mountain rivers or streams	Cobble-Gravel substrate
R2US (C)	Riverine, lower perennial, unconsolidated shore	Flats	Sand or mud
R3US (C)	Riverine, upper perennial, unconsolidated shore	Flats	Sand, mud or cobble-gravel
R4SB (F,C,A)	Riverine, intermittent, stream bed	Streams or irrigation canals	Sand or mud
L1UB (H)	Lacustrine, limnetic, unconsolidated bottom	Lakes, reservoirs, alpine lakes	Unconsolidated bottoms
L2AB (G,F)	Lacustrine, littoral, aquatic bed	Deep Marsh, lakes, or reservoirs	Submerged and floating aquatics
L2US (C,A)	Lacustrine, littoral, unconsolidated shore	Lake flats, beach	Sand or mud
PUB (G,H)	Palustrine, unconsolidated bottom	Gravel pits, oil and gas pits, alpine ponds	Unconsolidated bottoms
PAB (F,G)	Palustrine, aquatic bed	Vegetated ponds, beaver ponds or sewage ponds	<u>Lemna</u> sp. (duckweed) <u>Ruppia</u> sp. (pearlwort)

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR ROCK SPRINGS NW, SW, NE, & SE, WYOMING  
(2 of 3)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PEM (F,C,B,A)	Palustrine, emergent	Meadows, depressions, swales, floodplains, seeps, or springs	<u>Hordeum</u> sp. (barley) <u>Elymus cincreus</u> (basin wild rye) <u>Allenrolfea</u> <u>occidentalis</u> (iodine bush) <u>Rumex</u> sp. (dock) <u>Mentha</u> sp. (mint) <u>Salicornia rubra</u> (red saltwort) <u>Juncus</u> sp. (rush) <u>Distichlis</u> sp. (salt grass) <u>Agrostis alba</u> (redtop) <u>Phleum pratense</u> (timothy) <u>Agropyron</u> <u>smithii</u> (western wheatgrass) <u>Beckmannia</u> <u>syzigachne</u> (american slough grass) <u>Triglochin</u> sp. (arrowgrass) <u>Equisetum</u> sp. (horsetail) <u>Iris</u> sp. (iris) <u>Carex</u> <u>nebrascensis</u> (nebraska sedge)

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR ROCK SPRINGS NW, SW, NE, & SE, WYOMING  
(3 of 3)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PEM (cont'd)			<u>Phalaris arundinacea</u> (reed canary grass) <u>Juncus</u> sp. (rush) <u>Carex</u> sp. (sedge) <u>Eleocharis</u> sp. (spikerush) <u>Sium suave</u> (water parsnip) <u>Typha latifolia</u> (cattail) <u>Scirpus acutus</u> (hardstem bullrush) <u>Scirpus pungens</u> (american three square)
PSS (C,B,A)	Palustrine, scrub-shrub	Shrub wetlands	<u>Sarcobatus vermiculatus</u> (greasewood) <u>Salix</u> sp. (willow)
PFO (B,A)	Palustrine, forested	Forested wetlands	<u>Populus angustifolia</u> (narrowleaf cottonwood) <u>Picea</u> sp. (spruce)

E. WATER REGIME DESCRIPTION

(A) Temporarily Flooded - Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Plants that grow both in uplands and wetlands are characteristic of this water regime.

(B) Saturated - The substrate is saturated to surface for extended periods during the growing season, but surface water is seldom present.

(C) Seasonally Flooded - Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is extremely variable, extending from saturated to a water table well below the ground surface.

(F) Semipermanently Flooded - Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land's surface.

(G) Intermittently Exposed - Surface water is present throughout the year except in years of extreme drought.

(H) Permanently Flooded - Water covers land surface throughout the year in all years.

(K) Artificially Flooded - The amount and duration of flooding is controlled by means of pumps or siphons in combination with dikes or dams.

(U) Unknown - The water regime is not known.

F. MAP PREPARATION

The wetland classification that appears on the Rock Springs NW, SW, NE, and SE National Wetlands Inventory (NWI) Base Map (Table 1) is in accordance with Cowardin et al. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The photography was taken during August, September, October 1982; August, September 1983; August 1984.

Field checks of areas found within Rock Springs NW, SW, NE, and SE photography were made prior to the actual delineation of wetlands. Field check sites were selected to clarify varying signatures found on the photography. These photographic signatures were then identified in the field using vegetation types and soil types, as well as additional input from field personnel.

Collateral data included U.S.G.S. topographic maps, climate, vegetation, and ecoregional information. The user of the map is cautioned that, due to the limitation of mapping primarily through aerial photo interpretation, a small percentage of wetlands may have gone unidentified. Since the photography was taken during a particular time and season, there may be discrepancies between the map and current field conditions. Changes in landscape which occurred after the photography was taken would result in such discrepancies.

Aerial photo interpretation and drafting were completed by Geonex Martel, Inc., St. Petersburg, Florida.

G. MAP ACQUISITION

To discuss any questions concerning these maps please contact:

Regional Wetland Coordinator  
U.S. Fish and Wildlife Service - Region VI  
Denver Federal Center  
Post Office Box 25486  
Denver, CO 80225

To order maps, please contact:

Rocky Mountain Mapping Center, ESIC  
United States Geological Survey  
Box 25046, Stop 504, Denver Federal Center  
Denver, CO 80225-0046

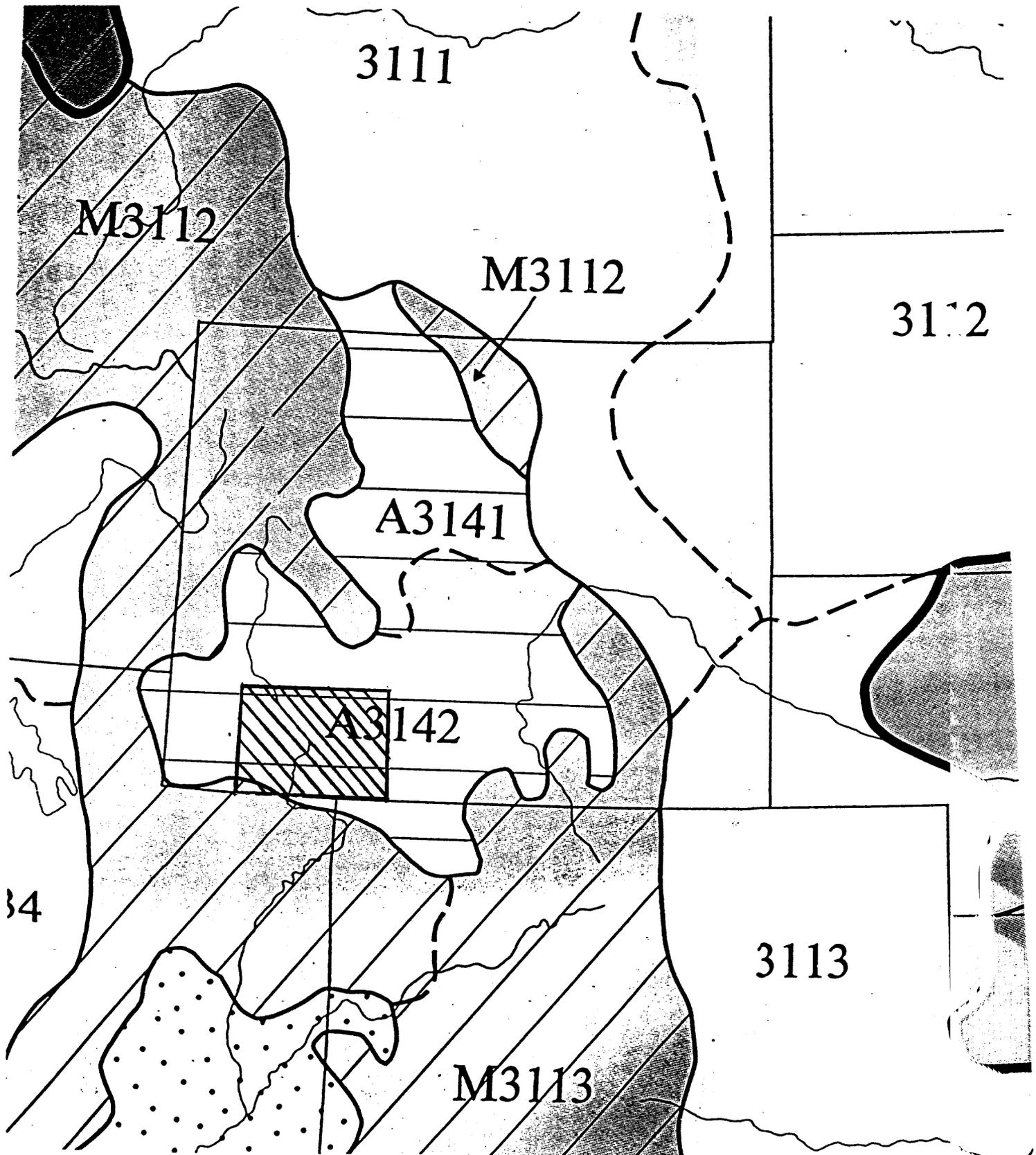
(303)236-5829

Maps are identified by the name of the corresponding U.S.G.S. 1:24,000 scale topographic quadrangle name. Topographic map indices are available from the U.S. Geological Survey.

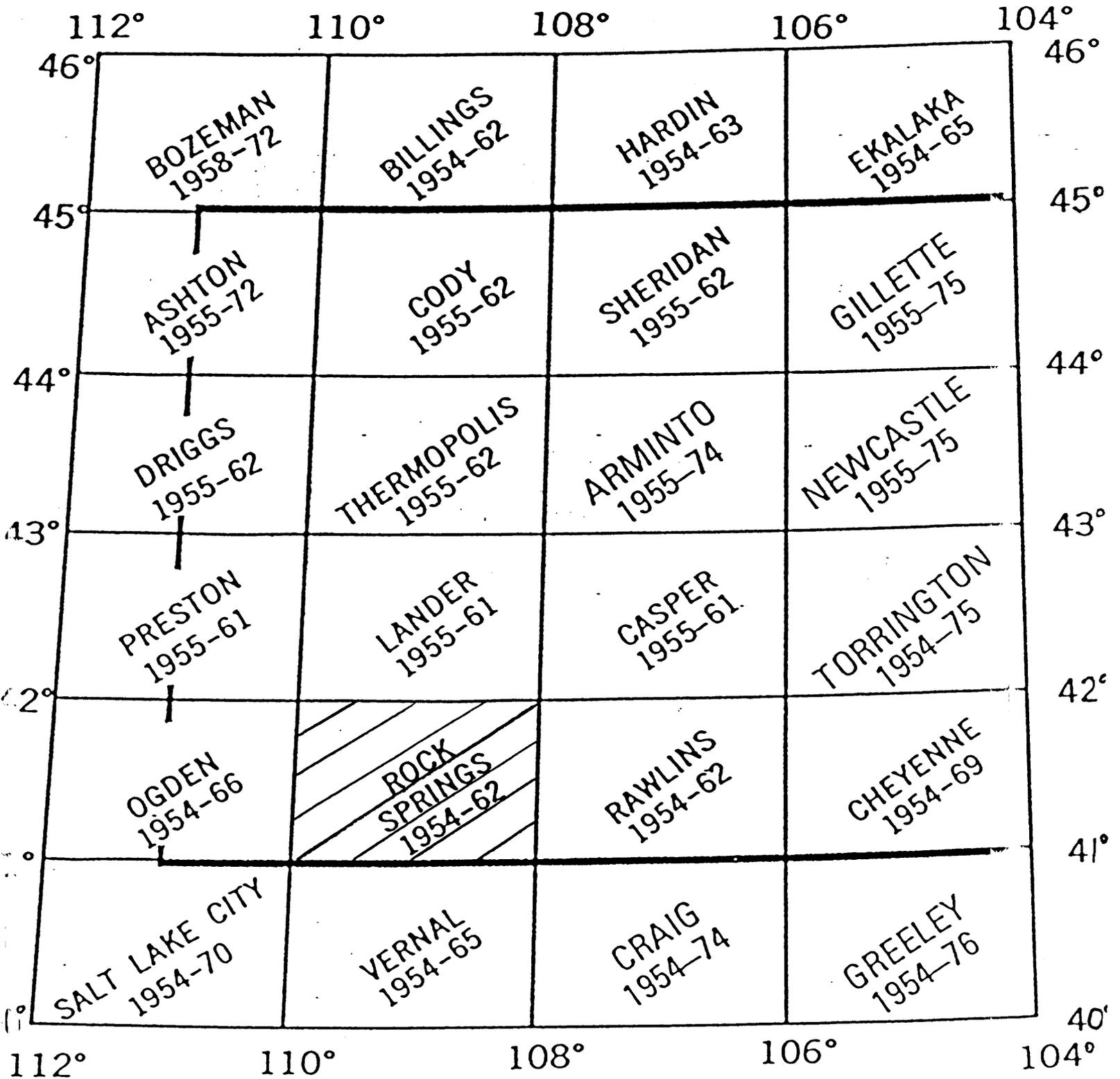
#### LITERATURE CITED

- Bailey, Robert G. 1980. Description of the Ecoregions of the United States; United States Department of Agriculture Forest Service. Miscellaneous Publications No. 1391.
- Cowardin, L.M.; V. Carter; F.C. Golet and E.T. LaRoe; 1979. Classification of Wetlands and Deepwater Habitats of the United States. United States Department of the Interior, U.S. Fish and Wildlife Service.
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- National Committee for Hydric Soils, 1985. Hydric Soils of the State of Wyoming; United States Department of Agriculture, Soil Conservation Service.
- Reed, Porter B. Jr., 1986. 1986 Wetland Plant List, Wyoming; United States Department of Interior, Fish and Wildlife Service.
- Wyoming General Soil Map; 1977. United States Department of Agriculture, Soil Conservation Service, Research Journal 117.

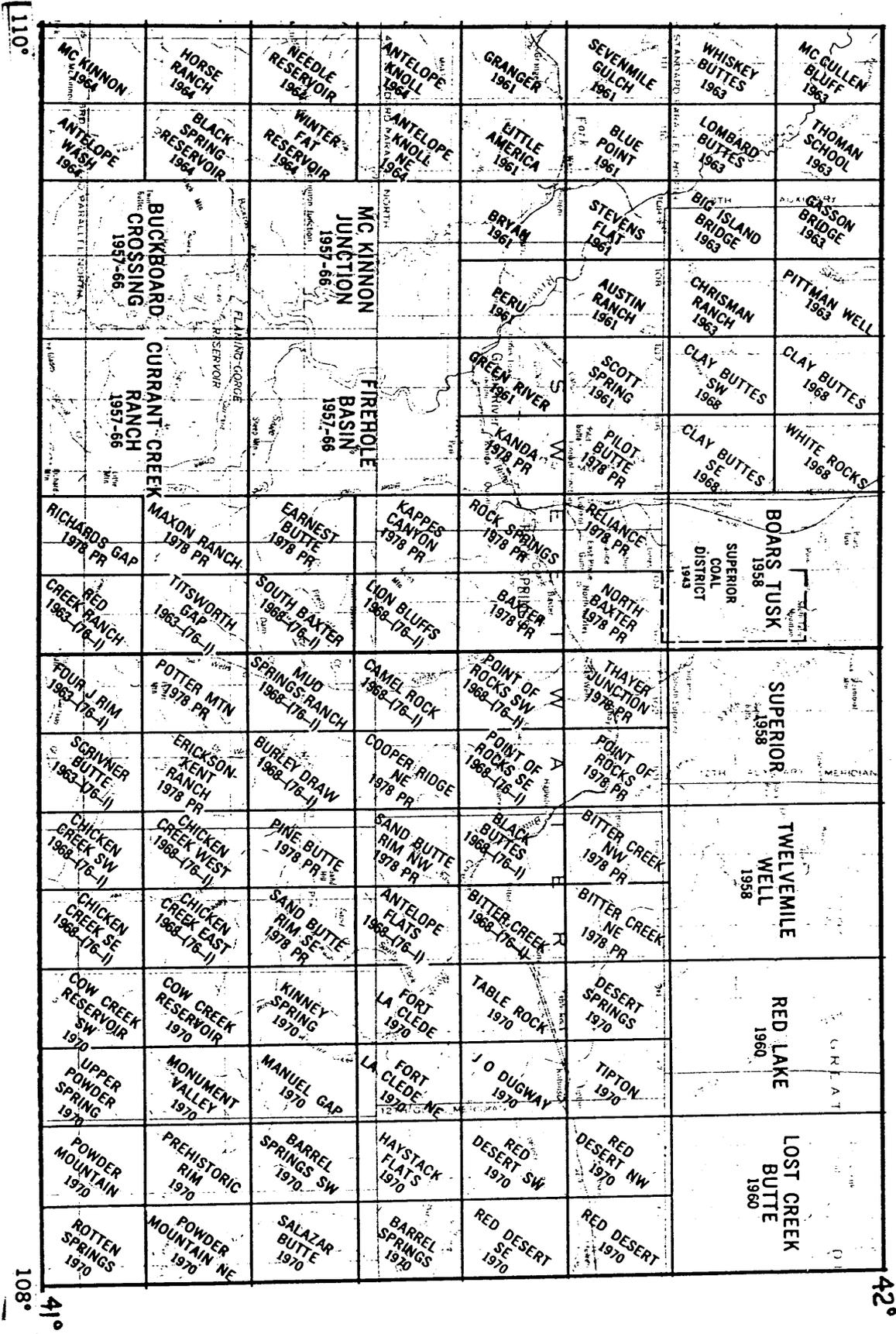
Locator Map (A)



LOCATOR MAP (B)



Locator Map (C)  
 Rock Springs N.W., S.W., N.E., S.E.



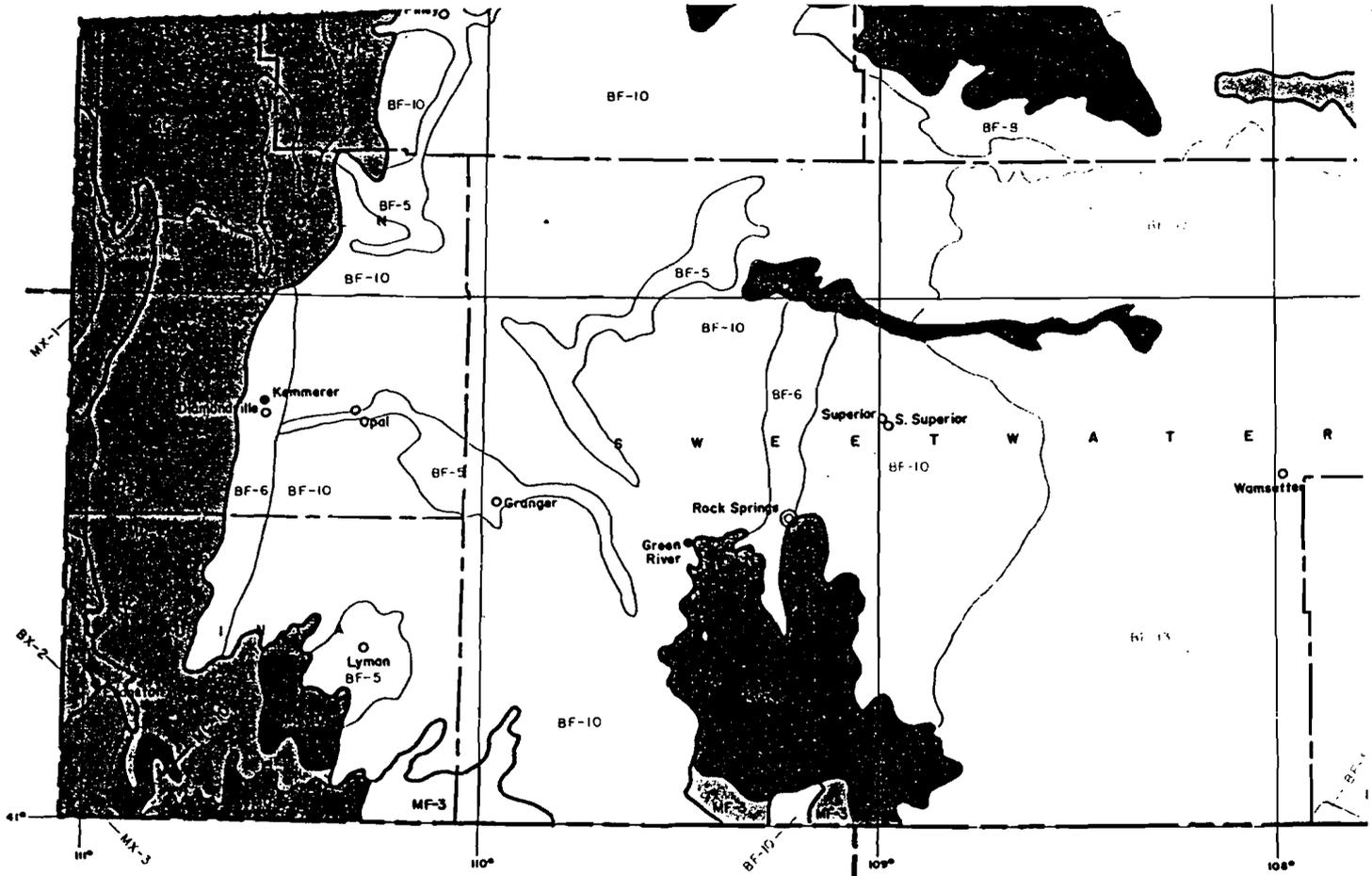
110°

108°

41°

42°

Locator Map (D)



# GENERAL SOIL MAP WYOMING

NOVEMBER 1975

10 0 10 20 30 40 MILES

SCALE 1:1,500,000

## SOIL ASSOCIATIONS

### M - Soils of the Mountains and Mountain Valleys

**MC** - Dark and light colored soils of the high mountains that are usually moist, have an AAP (1) of 45-100 cm. (18-40 In.), and a MSST (2) of less than 15°C. (59°F.).



Soils formed from residual materials:

- MC-1 Cryoboralfs-Cryoborolls association
- MC-2 Cryoborolls-Cryoboralfs association
- MC-3 Cryoborolls association
- MC-4 Rock Outcrop-Cryoboralfs-Cryoborolls association
- MC-5 Cryoborolls-Rock Outcrop association
- MC-6 Cryochrepts-Cryumbrepts association
- MC-7 Cryoboralfs-Cryoborolls-Rock Outcrop association
- MC-8 Cryoborolls-Cryorthents association



Soils formed from transported materials:

- MC-9 Cryoboralfs, stony-Cryoborolls, stony association
- MC-10 Cryoborolls-Cryaquents association
- MC-11 Cryoborolls-Cryaquolls association

**MF** - Dominantly dark colored soils of the mountains and mountain valleys that are usually moist in some parts during the summer, have an AAP of 35-60 cm. (14-24 In.), a MAST (3) of less than 8°C. (47°F.), and a MSST of more than 15°C. (59°F.).



Soils formed from residual materials:

- MF-1 Eutroborelfs-Haploborolls association
- MF-2 Argiborolls-Haploborolls association
- MF-3 Haploborolls-Argiborolls-Rock Outcrop association
- MF-4 Haploborolls, shallow association

**MX** - Dominantly dark colored soils of the mountains and mountain valleys that are usually dry during the summer and have an AAP of 35-55 cm. (14-22 In.), a MAST of less than 8°C. (47°F.), and a MSST of more than 15°C. (59°F.).



Soils formed from residual materials:

- MX-1 Calcixerolls-Calciorthids association
- MX-2 Haploxerolls association
- MX-3 Argixerolls association

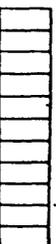
### B - Soils of the Intermountain Basins and Foothills

**BF** - Dominantly light colored soils of basins, terraces, and fans which are usually dry or may be moist in some parts during the summer, have an AAP of 20-35 cm. (8-14 In.), a MAST of less than 8°C. (47°F.), and a MSST of more than 15°C. (59°F.).



Soils formed from transported materials:

- BF-1 Torrripsamments association
- BF-2 Argiborolls-Torriorthents association
- BF-3 Haplargids-Haploborolls association
- BF-4 Haplargids association
- BF-5 Torrfluvents-Fluvaquents-Halaquepts association
- BF-6 Torriorthents, alkali association
- BF-7 Calciorthids-Haplargids association



Soils formed from residual materials:

- BF-8 Torriorthents-Haplargids-Rock Outcrop association
- BF-9 Torriorthents-Rock Outcrop association
- BF-10 Torriorthents-Haplargids-Matrargids association
- BF-11 Torriorthents, shallow association
- BF-12 Haplargids-Torriorthents association
- BF-13 Torriorthents-Camborthids-Haplargids association
- BF-14 Torriorthents, shallow-Torriorthents association
- BF-15 Torriorthents association
- BF-16 Haploborolls-Rock Outcrop association
- BF-17 Torriorthents-Camborthids association
- BF-18 Torriorthents, shallow-Rock Outcrop association