

## USER REPORT

### RAWLINS SE, RAWLINS SW, RAWLINS NW WYOMING

#### NATIONAL WETLANDS INVENTORY MAPS

##### A. INTRODUCTION

The U.S. 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. Photointerpretation 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 Rawlins SE, Rawlins SW, and Rawlins NW base maps is located in south-central Wyoming. Bailey's Ecoregion Classification (1980) divides the study area into two provinces, the Wyoming Basin Province and the Rocky Mountain Forest Province.

The basin area consists of broad expanses of sagebrush and numerous small sandy streams. Major rivers in this area are Little Snake River, the North Platte River, and Savery Creek. Relief in the area ranges from 6,200 feet to 8,000 feet.

The Rocky Mountain Province consists of the Medicine Bow National Forest. The elevation in this province ranges from 8,000 feet to 12,000 feet. This area is dominated by saturated areas above 9,000 feet and numerous mountain lakes. Areas below 9,000 feet are predominantly mountain streams inhabited by numerous beaver.

### Climate:

The climate of the Basin Province is characterized by short, hot summers, with cold winters. Annual temperatures range from 40° F to 52° F. The average annual precipitation for the area ranges from 5 - 14 inches, fairly evenly distributed throughout the year.

The climate in the Rocky Mountain Forest Province is characterized by a semiarid steppe regime in which precipitation falls in the winter. A considerable amount of precipitation is in the form of snow, however, permanent snow fields cover only small areas. Average annual temperatures are mainly 35° F - 45° F but reach 50° F in lower valleys.

### Vegetation:

Vegetation in the Wyoming Basin Province is dominated by sagebrush or shadescale, with a mixture of short grasses. Moist alkaline flats support such vegetation as greasewood, plus a variety of alkali tolerant plants. Where water is good, along streams and mountains, valley bottoms are lined by willows and sedges.

The Rocky Mountain Forest Province consists of vegetational zones controlled by a combination of latitude, elevation, direction of prevailing winds, and slope exposure. Vegetation here includes Blue spruce, Engelman spruce, aspen, Douglas fir, and lodgepole pine. Clearings in the Forest Province, approximately 9,000 feet and higher, consist of emergent vegetation, including carex, elephants head, marigold, and moss.

### 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, and 2) Soils of the Intermountain Basins and Foothills. This classification is further broken into climatic zones and soil associations.

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The Medicine Bow National Forest, located in the southwestern portion of Rawlins SE and eastern part of Rawlins SW, is dominated by the Soils of Mountains and Mountain Valley. They are dominantly dark colored soils that are usually moist in some parts during the summer. These soils are formed in a cool climate with moist summers. Within this area elevations range from 8,000 feet - 12,000 feet. The primary soil association is the Rock outcrop-Cryoboralfs-Cryoborolls association. This association is found on very steep terrain, developing in residuum and transported materials from igneous bedrock. The soil association Cryoborolls-Cryothents is also found in the mountainous areas. This association is found in rolling to steep terrain, developed in residuum and transported material from sedimentary bedrock.

The foothills 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 form in cool climates with spring moisture. The elevations range from 6,700 feet - 8,000 feet. The soil associations are formed by both transported and residual materials. Soil associations found this area are: Torrfluvents-Fluvaguents-Halaquepts association; Torrfluvents, alkali association; Torriorthents-Haplargids-Natrargids association; Torriorthents-Camborthids-Haplargids association and Torriorthents, shallow-Torriorthents association.

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## D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR RAWLINS SE, SW, and NW, WYOMING (1 of 3)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
R2UB (G, H)	Riverine, lower perennial, unconsolidated bottom	Rivers	Unconsolidated bottom
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, C)	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

## D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR RAWLINS SE, SW, and NW, WYOMING (2 of 3)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
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)
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 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. (saltgrass) <u>Agrostis alba</u> (redtop) <u>Phleum pratense</u> (timothy) <u>Agropyron smithii</u> (western wheatgrass) <u>Beckmannia syzigachne</u> (american sloughgrass) <u>Triglochin</u> sp. (arrowgrass) <u>Equisetum</u> sp. (horsetail) <u>Iris</u> sp. (iris) <u>Carex nebrascensis</u> (nebraska sedge)

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D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR RAWLINS SE, SW, and NW, 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 bulrush) <u>Scirpus pungens</u> (three square bulrush) <u>Pedicularis groenlandica</u> (elephants head) Marigold Moss
PSS (C, B, A)	Palustrine, scrub-shrub	Shrub wetlands	<u>Sarcobatus vermiculatus</u> (greasewood) <u>Salix</u> sp. (willow)
PFO (A)	Palustrine, forested	Forested wetlands wetlands	<u>Populus angustifolia</u> (narrowleaf cottonwood)

## 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 Rawlins SE, Rawlins SW, and Rawlins NW 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 July 1980, 1981; August 1980; September 1980, 1981; and October 1981.

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Field checks of areas found within Rawlins NW, Rawlins SW, and Rawlins 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 80225-0146

(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.
- Druse, S.A., and S.J. Rucker; 1984. Wyoming Water Resource Data, Water year 1984; United States Department of Agriculture, Soil Conservation Service.
- 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.

RAWLINS N.W., S.W., and S.E.  
Locator Map (A)

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M3112

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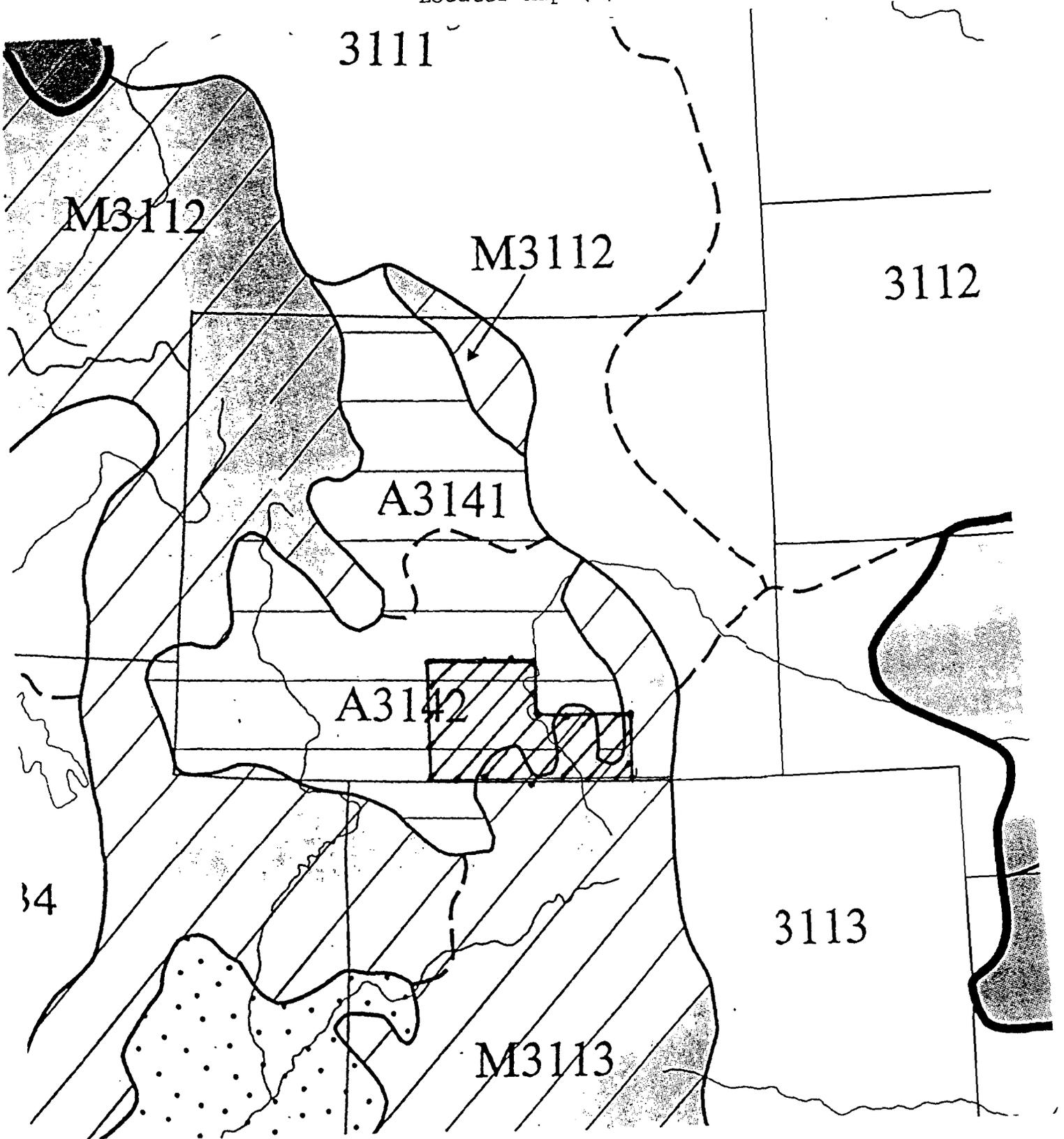
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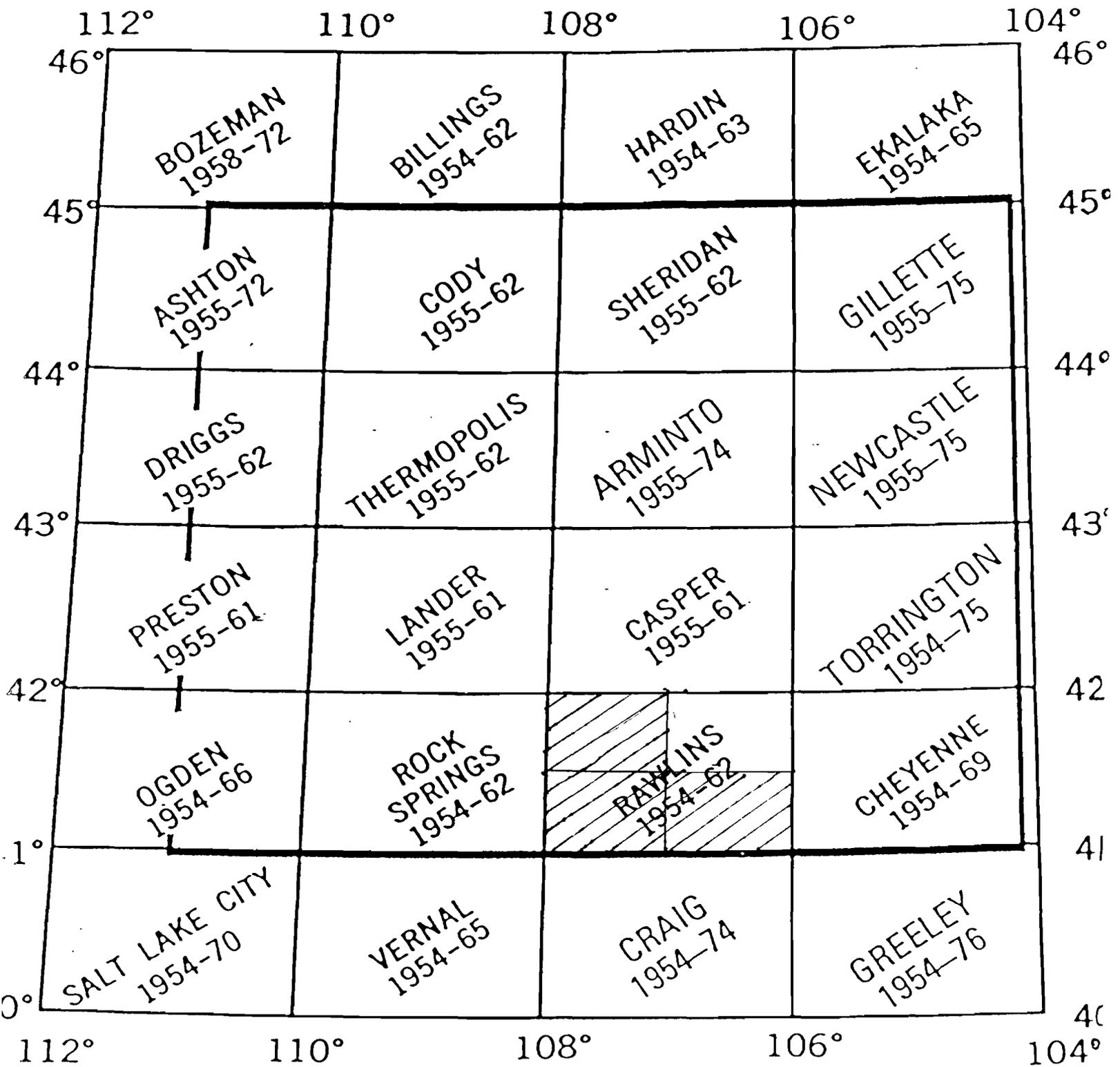
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RAWLINS N.W., S.W., and S.E.

LOCATOR MAP (B)





MC.PHERSON SPRINGS 1970	DRIPPING ROCK SPRING 1970	SOUTH BARREL SPRING 1970	MEXICAN FLATS NW 1970	EIGHT MILE LAKE 1966	WAMSUTTER 1966	MONUMENT LAKE 1966	HANSEN LAKE 1960
POISON BASIN 1970	FLAT TOP MOUNTAIN 1970	MEXICAN FLATS 1970	DUCK LAKE 1970	HIGH POINT 1966	CRESTON 1966	RUBY KNOLLS 1966	HANSEN LAKE NE 1960
BAGGS SW 75 00	BAGGS 1957	DOTY MTN 1957	SEAVERTON RESERVOIR 1966	CRESTON JUNCTION 1966	JAWBONE RANCH 1966	LARSEN KNOLL 1960	BUCK DRAW 1960
BAGGS SE 75 00							
SAVERY SAUKY 1961	BROWNS HILL 1961	KETCHUM BUTTES 1961	POLE GULCH 1961	BRIDGER PASS 1955	RAWLINS PEAK 1956	RAWLINS 1953	RAWLINS NW 1953
GRIEVE RESERVOIR 1961	TULLIS 1961	MC CARTY RANCH 1961	PINE GROVE RANCH 1961				
COTTONWOOD RIM 1962	SINGER PEAK 1961	DIVIDE PEAK 1961	MIDDLEWOOD HILL 1961	BOLTEN RANCH 1956	RAWLINS 1953	SINCLAIR 1953	LONE HAYSTACK MTN 1953
FLETCHER PEAK 1961	BRIDGER PEAK 1961	SHARP HILL 1961	JACK CREEK RESERVOIR 1961				
SOLOMON CREEK 1961	RED MTN 1961	INDIAN ROCKS 1961	WALCK RANCH 1961	SARATOGA 1961	FINLEY RESERVOIR 1961	KENNADAY PEAK 1961	TURPIN RESERVOIR 1961
DUDLEY CREEK 1961	ENCAMPMENT 1961	COW CREEK RANCH 1961	COW CREEK 1961				
BLACKHALL MTN 1961	GUNST RESERVOIR 1961	RYAN PARK 1961	PHANTOM LAKE 1961	MORGAN 1961	STROUSS HILL 1961	REX LAKE 1961	LAKE OWEN 1961
TRENT CREEK 1961	BARCUS PEAK 1961	MEDICINE BOW PEAK 1961	SAND LAKE 1961				
ELKHORN POINT 1961	KEYSTONE 1961	CENTENNIAL 1961	WOODS LANDING 1961				

LOCATOR MAP (D)

RAWLINS N.W., S.W., and S.E.