

Proposed Development of Cundick Springs,
Fossil Butte National Monument, Wyoming
A Short Section 106 Compliance Statement

Cundick Springs (48LN326) lies on Fossil Butte National Monument in the NE $\frac{1}{4}$ of section 14, T. 22 N., R. 118 W. (Maps 1, 2, and 3). It is in a transitional zone between the Green River Basin to the south and east and the Wyoming Range and Salt Ranges to the west and north. It is in a semi-arid region of steep ridges with intermittent streams in the valley bottoms. The vegetation in the region consists primarily of sage and grasses with aspen groves often near springs and the heads of valleys. Cundick Springs is twelve miles north-west of Kemmerer, Wyoming at an elevation of 7,950 feet. Kemmerer receives 8.72 inches of moisture annually with a mean annual temperature of 37.9° F. The spring is at the contact of the Bullpen Member of the Wasatch Formation and the Angelo Member of the Green River Formation. Both of these formations are Eocene in age with the Bullpen Member consisting of claystone and mudstone, and the Angelo Member consisting of limestone, marlstone, and mudstone. (McGrew and Casilliano, 1975). The vegetation in the vicinity of Cundick Spring consists of wheatgrass, brome, bluegrass, aspen, chokecherry, and big sage. Common large animals in the area are deer, black bear, antelope, elk, moose, mountain lion, and coyotes. Small animals such as rabbits, rodents and various birds are also common.

Southwestern Wyoming is a natural corridor between the Great Plains and the Great Basin with contact between the areas most likely involving bands living in southwestern Wyoming moving back and forth over long distances on a seasonal basis; thereby leading to cultural diffusion over time. Little archeological work has been conducted in the past, although with the advent of the energy crisis large scale surveys for coal mines are now being conducted in the area of Kemmerer. The earliest period represented in southwestern Wyoming is the Paleo-Indian dating from 12000 B.C. to 6500 B.C., however the evidence for occupation during this period around Kemmerer is sparse. The Altithermal Period extends from 6500 B.C. to 2700 B.C. and is virtually nonexistent in Southwestern Wyoming. Most of the sites located in the area are Middle Period in age (2700 B.C.-A.D. 500), especially Late Middle Period which resembles the Desert Archaic found in the Great Basin. Usually these Archaic sites are small lithic scatters with little depth of deposit representing a temporary campsite on the seasonal round of activities of the prehistoric inhabitants. A number of sites with a Late Prehistoric Period component have been located in southwestern Wyoming and more are undoubtedly present. They are characterized by small projectile points indicating the use of the bow and arrow and various types of crude pottery. The historic period in Wyoming is characterized by numerous emigrant trails as well as fur trade locations. The Sublette Cutoff of the Oregon Trail is several miles north of Cundick Spring although it cannot be seen from the spring.

The Cundick Spring site (Map 4) was located in 1973 by the University of Wyoming during a survey of Fossil Butte National Monument (Zeimens, 1976). The site is on a gentle southeasterly facing slope overlooking a large plain before it drops off into Schuster Basin (Photos 1-13). The site appears to extend for at least 600 feet on a north-south axis and 200 feet on a east-west axis. The University of Wyoming survey revealed bones, Late Middle Period projectile points, manos, and considerable debitage eroding out of the talus slope. Because of the soil conditions considerable buried material may be present in the site. The projectile points were corner-notched with short expanding stems, convex-basis and rounded shoulders. Most of the material used in tool manufacture was local chert with perhaps 51 being obsidian or quartzite. Several antelope bones were located as were several mitate fragments and several manos. No fire cracked rock was located, but soil stains indicate that at least several fire hearths are present.

Cundick Springs has been severely trampled by cattle to the point where the clumps of grass in the spring have been left pedestalled as the soil around them is eroded away (Photo 2). In addition, a low use two track trail to the spring has slightly damaged the eastern part of the site. The site has been used as a sheepherders and/or hunters camp in the past which has not damaged the site other than subjecting it to surface collecting. A natural drainage to the north of the spring has caused erosion of some of the cultural deposits.

Based on the sites potential to significantly contribute to the pre-historic record of Wyoming, the site has been nominated to the National Register of historic places.

The Park Service proposes to fence the entire Monument in several years and exclude livestock grazing from it. The BLM is proposing to develop Cundick Spring in order that the water can be utilized on the flat plain in front of the spring. The spring itself would be fenced after development to keep livestock off it. The spring would be developed by the use of a rotary drill on a flatbed trailer which would drill a 3½" hole into the head of the spring from its base. The hole would then be cased with pipe and grouted with cement for a short distance. The hole would be drilled with water for a distance of no more than 200 feet under the spring for a total area of 13 cubic feet. The drill will be brought in along the existing two track road and set up at the base of the spring about twenty feet from the road. The spring itself does not appear to have any archeological values on the surface nor are there any at its base. There may be artifacts buried in the spring as well as pollens and phytoliths. The drilling will not result in any surface disturbance of the spring. All material which the drill brings to the surface will be screened to determine if any subsurface cultural materials are present.

The water will be piped away from the spring development by a plastic pipe which will be buried with a tractor which will pull a ripper along one existing two track road running east from the spring. The first pass of the tractor will open the trench about 20 inches. The pipe is buried on the second pass of the tractor leaving a disturbed area about twelve inches wide and a mile long. The pipeline will not be constructed until next year.

The spring development has the potential of disturbing buried cultural and biological materials either through drilling or burying the pipeline. The presence of an archeologist during construction will at least determine if any subsurface materials are present. The fencing of the spring, and the eventual fencing of the monument will eliminate the livestock trampling of the spring and the areas of the site around it which have already been severely damaged through trampling. The BLM and monument management staff as well as the local ranchers are strongly in favor of the proposed development. The Wyoming SHPO and State Archeologist have not expressed an opinion in light of the new method proposed for development which will not involve any surface disturbance of the spring.

References

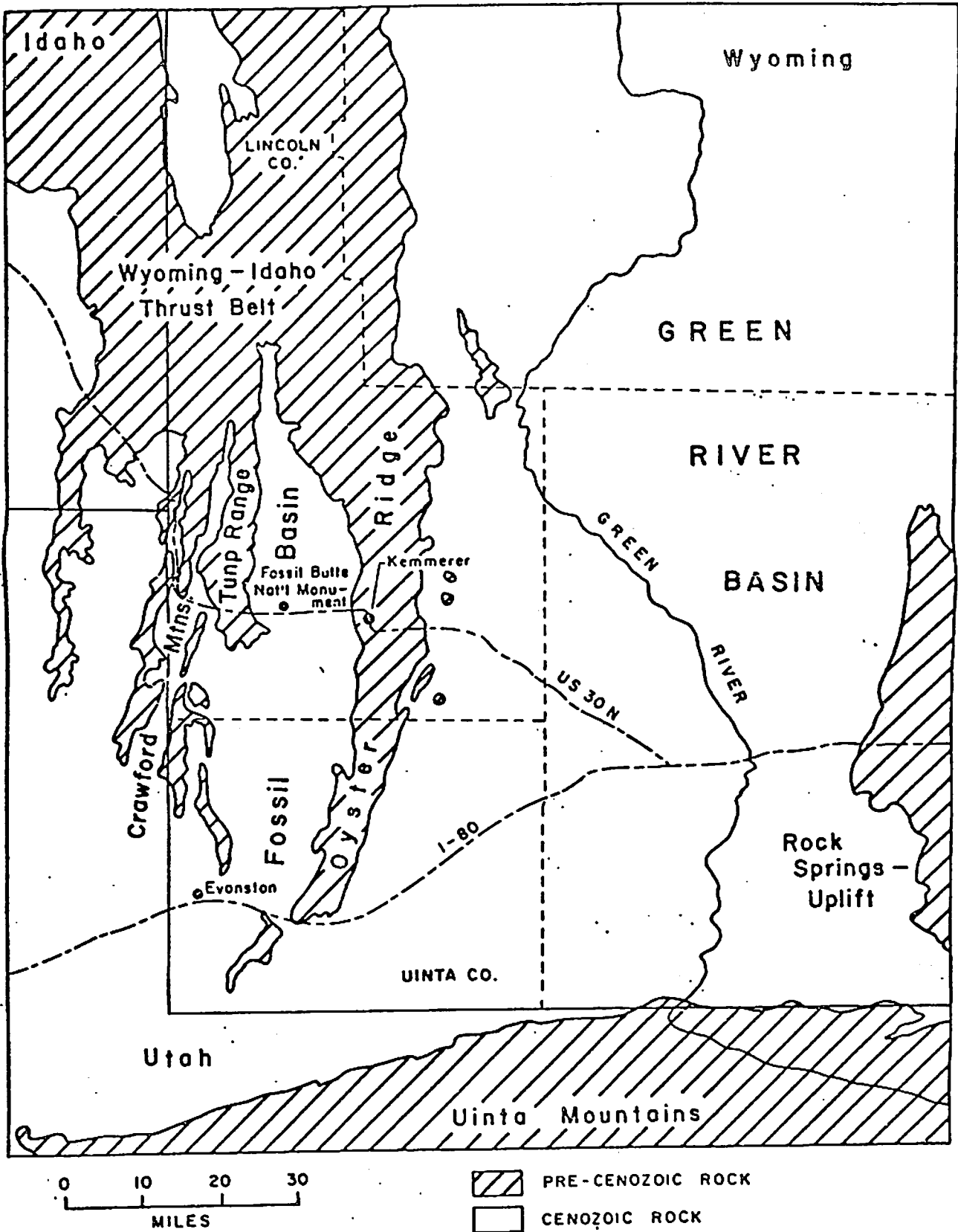
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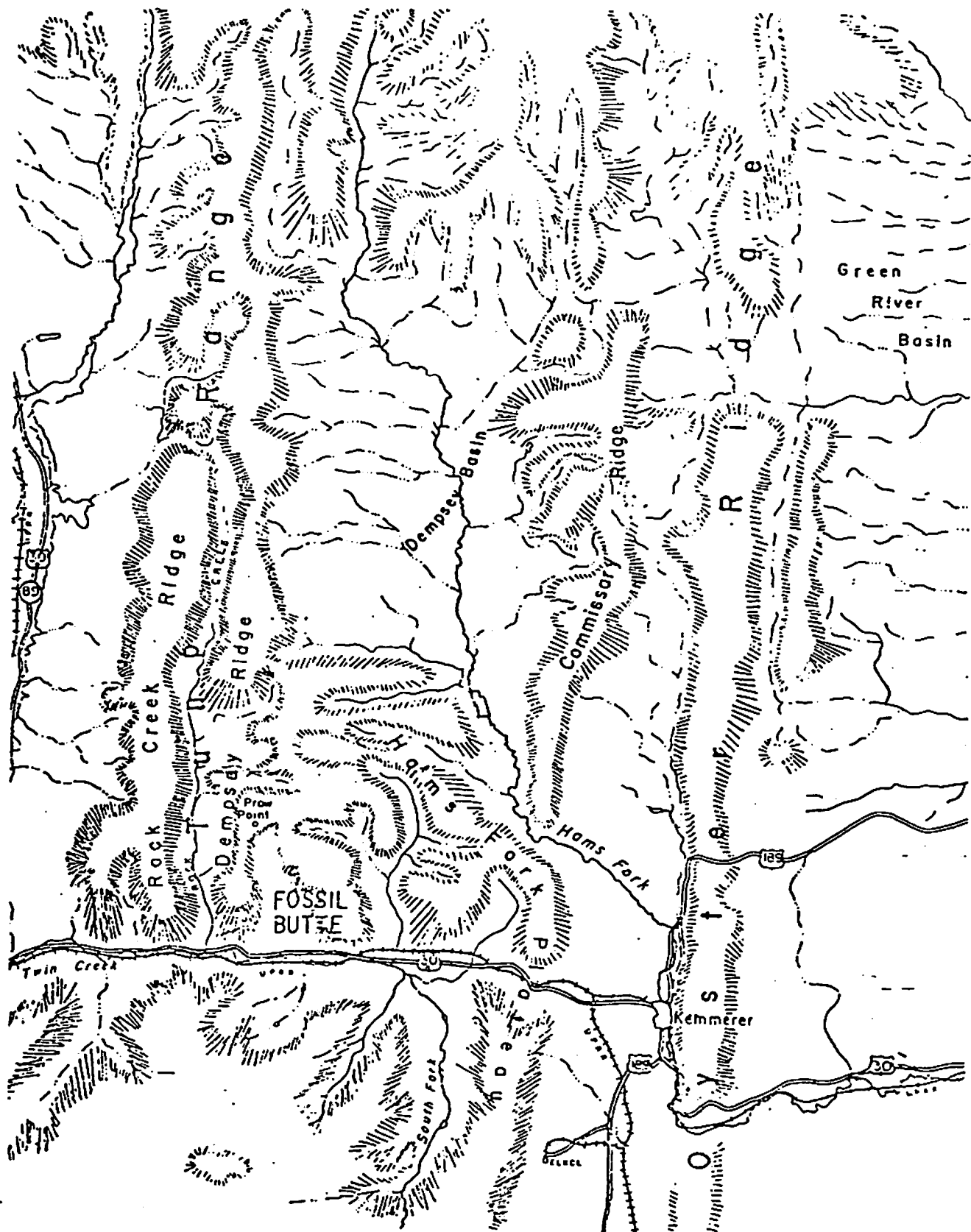
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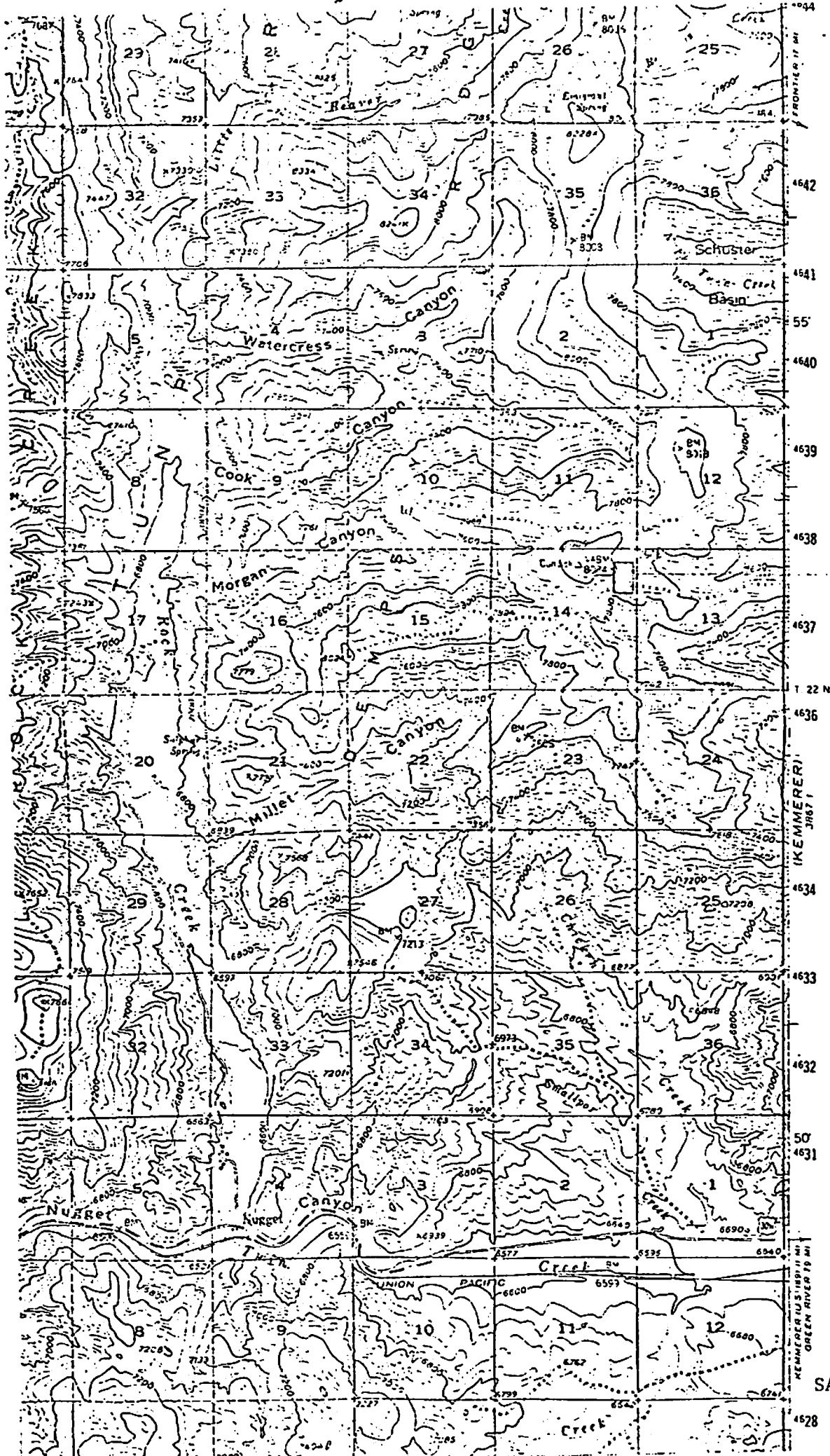
MAP 1

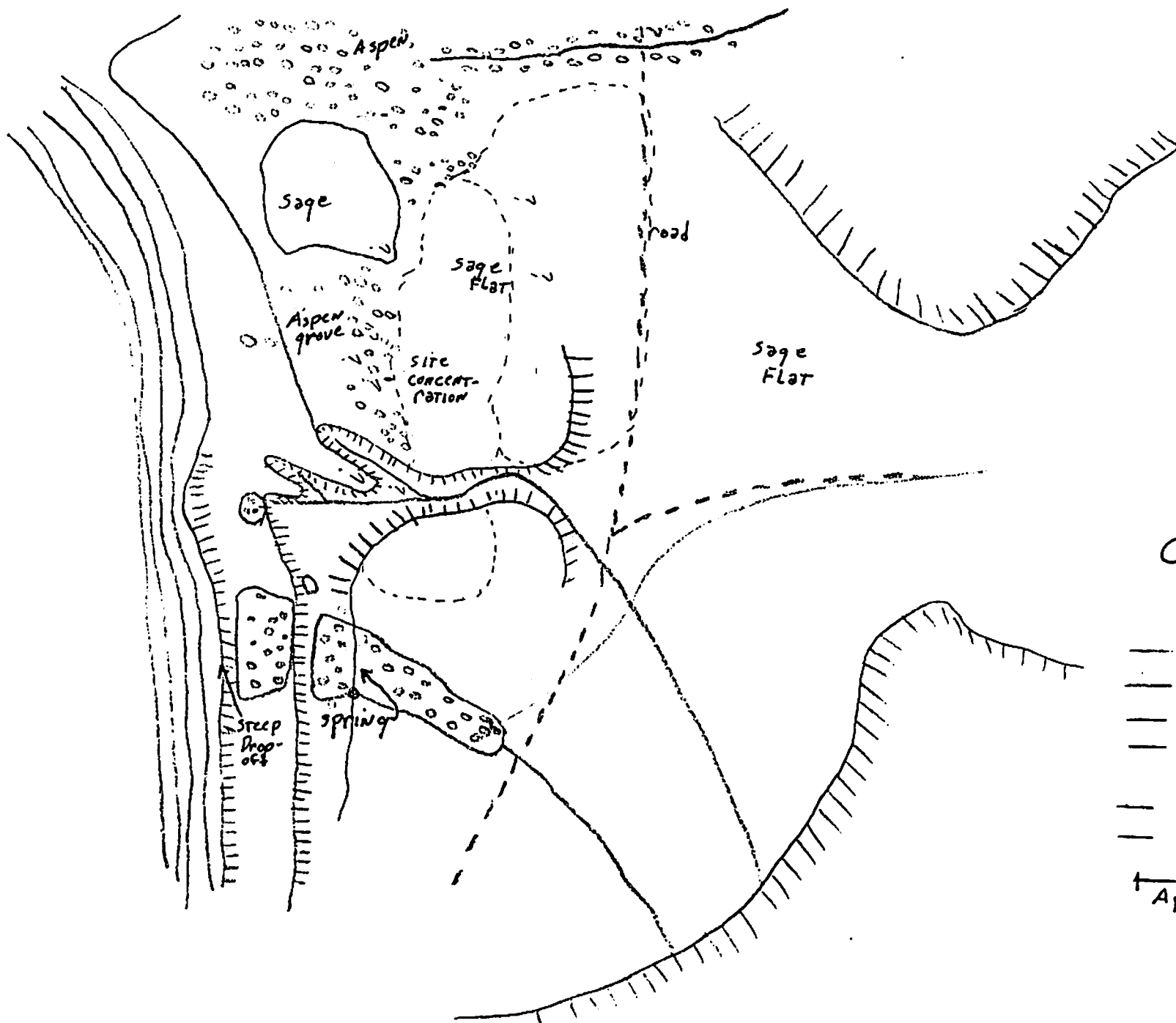


Geographic features of southwest Wyoming and adjacent areas (from Oriol and Tracey 1970).



Physiography of the Fossil Butte National Monument region (from U.S. Department of the Interior 1964).





Cundick Spring ↑ N
Map 4

- Spring development
- Spring Area
- Aspen grove
- Site Area
- Site Concentration
- Trails
- Contours

200'
Approximate