

12-6-93



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Eagle Lake Resource Area
705 Hall Street
Susanville, California 96130-3730

IN REPLY REFER TO:

4700 (CA-026)
EA-CA-026-93-19

December 6, 1993

Catherine Barcomb
Commission for the Preservation
of Wild Horses
Stewart Facility, Capitol Complex
Carson City, NV 89710

Dear Ms. Barcomb:

As requested, enclosed is the Decision Record, Finding of No Significant Impact and Rationale with a supporting Environmental Assessment (EA-CA-026-93-19) concerning the proposed Riparian Projects in the Twin Peaks Allotment.

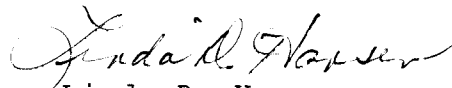
If you believe this Decision adversely affects you or is in error and wish to appeal under 43 CFR Subpart 4.4, you have 30 days from receipt of these documents in which to file an appeal with the Area Manager, Eagle Lake Resource Area, 705 Hall Street, Susanville, CA 96130.

This decision will become effective on the day after the expiration of the time during which an appeal may be filed unless a petition for a stay is filed together with a timely notice of appeal. A petition for a stay may be filed only by a party who is eligible to file an appeal. A petition for stay must be served on each adverse party named in the decision and must be filed with the Board of Land Appeals by the appellant. The appellant requesting the stay bears the burden of proof to demonstrate in the petition sufficient justification for a stay based on: 1) the likelihood of the appellant's success on the merits of the appeal, 2) the likelihood of immediate and irreparable harm if the stay is not granted, 3) the relative harm to the parties if the stay is granted or denied, and 4) whether the public interests favor granting the stay.

Further information concerning appeal procedures can be found in the enclosed Information on Taking Appeals to the Board of Lands Appeals.

Questions concerning this decision may be directed to Steve Surian, Range Conservationist, or Ken Visser, Supervisory Range Conservationist of my staff at (916) 257-0456. Written questions or comments should be directed to me at the above address.

Sincerely,



Linda D. Hansen

Area Manager

Enclosures
As Stated

DECISION RECORD
FINDING OF NO SIGNIFICANT IMPACT
EA-CA-026-93-19

Riparian Projects in the Twin Peaks Allotment

Decision:

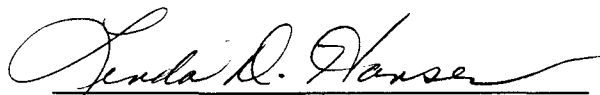
It is my decision to implement the BLM's proposed action as described and stipulated in the above-cited EA which is attached to this Decision Record.

Finding of No Significant Impact:

Based upon the analysis of the potential environmental impacts contained in the EA, I have determined that the impacts of the proposed action are not expected to be significant, that the proposed action does not constitute a major federal action with significant impacts to the human environment, and that an environmental impact statement is not required.

Rationale:

The preferred alternative has been analyzed, with no serious impacts anticipated. The environmental assessment adequately addresses all affected resource values. As evidenced by the analysis in the EA, net positive benefits to the environment will result from the implementation of the proposed action as described and stipulated. The construction of the Riparian Projects as described and stipulated in this EA is needed in order to restore, and for the maintenance of the riparian areas in a functioning condition.



Linda D. Hansen
Manager, Eagle Lake Resource Area

November 30, 1993

Environmental Assessment
Riparian Projects in the Twin Peaks Allotment
CA-026-93-19

I. Introduction

A. Purpose Of and Need For Action

The objective of the proposed action is to provide for management that allows improvement in the condition of riparian vegetation in the Twin Peaks Allotment of the Cal-Neva Planning Unit, which is located in eastern Lassen County and western Washoe County, Nevada. Increased riparian-wetland vegetation production, diversity, and ground cover are the improved conditions expected from these actions. Improvements would be accomplished by controlling livestock and wild horse and burro utilization by (1) building fence exclosures around spring sources where needed, and developing associated water sources, and (2) by managing specific stream riparian areas by building drift fences in combination with natural topographic barriers.

Vegetative monitoring data collected in Cal-Neva Planning Unit has indicated that grazing impacts by livestock and wild horse and burros are often concentrated in riparian areas. Plant utilization on the uplands generally is slight to moderate, whereas use on the riparian sites often is heavy to severe. These impacts have been the focus of much attention in recent years. The 1983 Cal-Neva MFP addressed riparian issues with multiple use recommendations such as WL 4.3 and WL 4.5. The WL 4.3 objective states that Lower Smoke Creek would be fenced to exclude livestock and burro grazing to protect riparian values. The WL 4.5 objective recommends the establishment of grazing systems to provide periodic rest to riparian areas from livestock grazing on all allotments in the Cal-Neva area. Bureau wide riparian management policy includes the Riparian-Wetland Initiative for the 1990's, which states: restore and maintain 75 percent of the riparian areas in good or better functioning condition by 1997, and to provide the widest variety of forage and habitat diversity for fish, wildlife, livestock, wild horses and burros, and for watershed protection.

This assessment will analyze how the proposed action would improve riparian conditions while accommodating grazing use in the Twin Peaks Allotment by domestic livestock and wild horse and burros. The decision to be made at this time is if the proposed action is the best management method to allow this objective to be reached.

B. Conformance with Existing Plans

Livestock management on this allotment is guided by the Twin Peaks Allotment Management Plan (AMP) (1985). Currently, this AMP is undergoing review. This AMP will be revised or replaced by a suitable integrated plan following the completion of the East Lassen Umbrella Guidance. The umbrella guidance will provide direction to BLM concerning management activities affecting cattle, sheep, antelope, mule deer and wild horses and burros in the East Lassen Project Area. Currently, the umbrella guidance is slated to be completed by mid-1994, with the revision or replacement of the AMP by late 1994.

Although this action is proposed prior to the revision or replacement of the Twin Peaks Allotment Management Plan, it is necessary in order to meet Cal-Neva MFP Multiple use Recommendation WL 4.3 and WL 4.5. The proposed action also will help to meet the Bureau-wide, Riparian-Wetland Initiative for the 1990's, and the proposed National Standards and Guidelines for Riparian-Wetland and Aquatic Components. The proposed projects would enhance any livestock management system either as it currently exists, or as it may be modified in the future.

II. Proposed Action and Alternatives

A. Proposed Action

The Bureau of Land Management proposes to build drift fences for six stream riparian areas and to build eight spring exclosures. Seven of eight exclosures will have water developments to provide water outside the exclosure. The eighth spring exclosure will have water available at an adjacent stream source.

The proposed fence specifications are standard antelope type fence which consists of four wires, three barbed wires and one smooth bottom wire. The wires are spaced in a manner that allows big game to either go underneath or jump over the fence. Green metal posts are used to help camouflage the appearance of the fence minimizing visual impacts. If built, the fences will be temporarily (for 1 year) flagged to alert antelope, deer, horses and burros to the fence's presence. Where possible, the fence will be located off ridge tops to minimize the visual impact. Mechanical clearing of brush and rocks will not be allowed, thus reducing surface disturbance and visual impacts.

The following is a summary of proposed actions considered in this EA by project name, units in acres or miles, legal location, and wilderness study area name (if applicable), remarks, and map/project sketch number.

1. Drift Fences

Lower Smoke Creek Riparian Drift Fence # 2, 2.3 miles, T.30 N., R.19 E., Sections 5 & 6, located in the Dry Valley Rim WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. This would be the third drift fence constructed for the Lower Smoke Creek riparian area and this fence should complete the pasture. The fence would control drifting cattle, and would have little or no impact on burros or wild horses movements. Map # 1.

Parsnip/Buffalo Riparian Drift Fence, 0.75 miles, T.33 N., R.19 E., Sections 16 & 22, Twin Peaks WSA. Scheduled for construction in FY 94 by BLM; the permittee has maintenance responsibilities. This project would control cattle use on approximately 2 miles of public streams on Parsnip Creek and Buffalo Creek. The fences should have little or no impact to wild horses which occasionally use this area. Map # 2.

West Fork Riparian Drift Fence, 0.25 miles, T.34 N., R.18 E., Sections 36, Buffalo Hills WSA. Project delayed, additional structures may be needed to control cattle use on the West Fork-Buffalo Creek. The construction date is scheduled for FY 94 or later. Cultural resources and special status plant and wildlife inventory evaluations were delayed. The short drift fence is needed to help control cattle use on approximately 4 miles of public stream. The fences should have little or no impact to wild horses which usually are observed in this area. Map # 3.

Middle Fork Riparian Drift Fence, 0.7 miles, T.33 N., R.19 E., Section 5, Buffalo Hills WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. This project in combination with a fence proposed on private land at the Norton Place would help control cattle use on approximately 2 miles of public stream on the Middle Fork-Buffalo Creek. The fences would have little or no impact to wild horses which occasionally use this area. Map # 4.

Buffalo Riparian Fence, 0.25 miles, T.33 N., R.19 E., Sections 10, Buffalo Hills WSA. Project construction and maintenance by the permittee. This fence would help control cattle on the lower sections of the North Fork-Buffalo Creek. This fence is open-ended on the north side and should not have any impacts to wild horses which are seldom observed in the vicinity of the fence. Map # 5.

Rowland Drift Fence, 1.5 miles, T.34 N., R.18 E., Sections 27 and 28, Buffalo Hills WSA. Project delayed, construction date is scheduled for FY 95 or later. Cultural resources and special status plant inventory and evaluations were delayed. This fence would control cattle grazing use in the Rowland Mountain Planning Compartment. This area is also heavily used by wild horses. Currently, livestock use restricted by season of use and rested every other year for enhancement of bitterbrush production. The fence would also control use on riparian areas associated with Cottonwood and Painter Creeks. Map # 6.

2. Spring Improvements with Exlosures

Coyote Spring Enhancement, 5 acres, T.31 N., R.17 E., Section 19, SW 1/4, Five Springs WSA. Scheduled for construction in FY 94 by BLM, and the permittee has maintenance responsibilities. Spring and associated riparian area trampled and overgrazed by livestock and wild horses and burros/mules. This project would protect one of the few public riparian areas that occurs on Five Spring Mountain. Map/sketch # 7.

Phone Spring Enhancement, 2 acres, T.31 N., R.17 E., Section 22, NW 1/4, Five Springs WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. Spring and associated riparian moderately trampled and overgrazed by livestock and occasionally by wild horses and burros. The project would protect an riparian area, special status plants and cultural resources. Map/sketch # 8.

South Twin Springs # 1, 20 acres, T.32 N., R.18 E., Sections 26, Twin Peaks WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. Spring and associated riparian area trampled and overgrazed by wild horses. The project would protect culture resources and a riparian area in the Burro and Twin Peaks Mountains. Map/sketch # 9.

South Twin Springs # 2, 25 acres, T.32 N., R.18 E., Sections 27, Twin Peaks WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. Spring and associated riparian area trampled and overgrazed by wild horses. This project would also protect culture resources and uncommon riparian area in the Burro and Twin Peaks Mountains. Map/sketch # 10.

Indian Spring Enhancement, 2 acres, T.33 N., R.18 E., Section 23, SW 1/4. Project currently under evaluation, scheduled for construction in FY 94 or later. Small spring and associated riparian area trampled and overgrazed by livestock and wild horses. Spring was identified as important water source for wildlife. The project would protect an riparian area, and cultural resources. Map # 11.

Chokecherry Spring Enhancement, 1 acre, T.32 N., R.18 E., Section 32, NE 1/4. Project construction and maintenance by permittee. Small spring would provide an additional water source in the Mixie Flat area to improve livestock and wild horses distribution. Map/sketch # 12.

Parsnip Spring Enhancement, 2 acres, T.33 N., R.19 E., Sections 30, Twin Peaks WSA. Scheduled for construction in FY 94 by BLM; permittee has maintenance responsibilities. An important spring and associated riparian area trampled and overgrazed by livestock and wild horses. Spring was identified as important water source for wildlife. The project would protect an riparian area, cultural resources, and an special status plant. Map/sketch # 13.

3. Exclosures

Stone Corral Exclosure, 4 acres, T.34 N., R.19 E., Section 12, Poodle Mountain WSA. Project construction and maintenance by BLM. Exclosure is located between unfenced private land and would protect northern most public riparian area on the North Fork-Buffalo Creek. Spring and associated riparian area trampled and overgrazed by livestock and wild horses. Spring flow measurement was not adequate for water development. Map # 14.

Description of Activity:

Drift Fences

The drift fences would be constructed between natural topographic barriers where cattle and wild horses and burros normally drift into riparian zones from the uplands. The drift fences would tie into natural topographic barriers to complete a control pasture.

The Lower Smoke Creek Riparian Drift Fence # 2 should be the last of three fences needed to complete the Lower Smoke Creek Riparian Pasture, started in 1989. This proposed drift fence would tie into a natural barrier on the south side of Burro Mountain on the east, and would tie into a steep rocky area south of Red Rock Canyon on the other end. The fence would cross the Smoke Creek Road and would require a double cattleguard. This project would include some unfenced private land inside of the riparian management areas as well.

The proposed fences would have gates with opening devices would be installed where appropriate for management and access, but not to exceed a distance of one mile between gates or cattle guards. Cattle guards would be used on all maintained roads and gates used on secondary roads. Gates with opening devices will be installed adjacent to all cattle guards. The fences would be temporarily flagged to alert antelope, deer, horses and burros of its presence until they are accustomed to the location.

Normal fence maintenance would be considered part of the proposed action. This consists of ocular reconnaissance of the fenceline, gates, and cattle guard conditions, and subsequent repairs. Maintenance of fences will be generally accomplished by grazing permittee(s) through cooperative agreements with the BLM. No new road construction would be necessary. Since the proposed fences are located in Wilderness Study Areas, stipulations as follows would be adhered to:

Riparian Exclosure and Drift Fence Construction Stipulations

- a. Where roads currently do not exist, vehicular access would be restricted to one vehicle, one way, along fenceline for the duration of the construction period to a project, for the purpose of delivering materials. Daily access to the fence line shall be by foot traffic only.
- b. Vehicle use would not be allowed during wet weather when rutting could occur.
- c. For those projects without vehicle access routes, materials for a fence may be placed along the proposed fence line by helicopter.
- d. Green fence posts would be used to camouflage the fence appearance.
- e. Mechanical clearing of brush and rocks would not be allowed thus reducing surface disturbance and the visual impacts.

- f. Where possible, the fence would be located off ridge tops to minimize "high lining" and reduce the visual impact.

Fence specification would follow those for "Wire Livestock Fences for use on Antelope Ranges"¹ which are:

Riparian Enclosure and Drift Fence Design Stipulations

- a. Four strand wire fence with the top three strands being barbed and the bottom smooth wire. Wire spacing from the ground is 18", 22", 28", and 42".
- b. Steel posts set on 16.5 foot centers.
- c. Wood or metal brace panels or rock cribs set every ¼ mile, corner, end point or gate.

Spring Riparian Enhancement Projects*

The eight spring enclosures are proposed to protect and enhance riparian vegetation associated with spring sites. The enclosures will vary in size from approximately 1 acres to 20 acres. Seven of the eight proposed projects will also have 1 of 2 possible water developments: (1) a below ground collection box which is a perforated culvert 3 feet in diameter placed on end in an accompanying gravel bed, or (2) the collection box may consist of perforated pipe 4 to 6 inches in diameter and 6 to 12 feet long buried at a depth of 1 to 3 feet. The collection area is offset from the major spring flow area to intercept the minimum amount of water needed at the trough. Based on past experience this collection method is necessary to provide water outside the enclosure, particularly during drought years. All excavation would be accomplished by using a backhoe from the collection box to trough outside of the enclosure and from water overflow pipe from the trough that would re-enter the natural spring drainage. The pipeline is buried to protect it from the elements and from trampling from large ungulates. Depth of pipeline burial depends upon soil characteristics, but the polyethylene pipe of 1 1/4 to 2 inches in diameter is generally buried at 1 to 3 feet. The troughs would be located 150 to 300 feet from the collection box. Location of troughs is based primarily on topography for adequate gravity pressure for constant flow through the troughs to reduce ice and algae built up. We know of no method to eliminate ice and algae problems at the trough overflow drains. Other considerations are placement of troughs on rocky areas with a minimum of 2 percent slope to reduce the soil trampling. The troughs are also placed at a reasonable distance from fences for easy access for large ungulates and to avoid accidental animal entanglement in fences.

No overflow ponds are planned for these projects to avoid the potential spread of viruses among large ungulates, which can occur on wet trampled soils. Bird ladders are placed in each open trough to provide an escape ramp for wildlife. The proposed projects will be built in such a manner to ensure that water is available at the spring site for wildlife, livestock, wild horses and burros.

¹ BLM Manual Handbook H-1741-1, 1985.

Spring developments and pipelines are considered long term developments with a life span of more than 20 years. Normal maintenance and repairs are considered part of the proposed action. Repairs may require digging up portions of the pipeline or the collection device at the spring source.

* Schematic diagram for each project is attached.

Spring Improvement Design Stipulations

- a. Gravel will be placed around the troughs to reduce or eliminate wet soil trampling and the possibility of breeding habitat for grats, carriers of BTV, and EHB.
- b. Bird ladders or escape ramps will be installed in all troughs.
- c. Troughs will be anchored to treated wood or concrete platforms to prevent deleveling and spilling of the troughs.
- d. Over-flow drains will be installed in the bottom of troughs to prevent deleveling and spilling of the troughs.

B. No Action Alternative

The no action alternative to the proposed action is to not construct these management facilities.

C. Other Alternatives Considered but not Fully Analyzed

1. Alternative Design

- a. The use of wood fence such as: post/pole or worm style wood, was considered but was rejected due to excessive costs (initial costs are as much as five times the cost of barbed wire) and greater visual impacts than a steel fence. Longevity is shorter and maintenance costs are often significantly higher than fences made with steel materials. Wood fences could also be damaged by wildfires.
- b. The use of eight feet tall field fence such as: woven or welded wire with 2 x 4 inch openings to prevent mule deer and pronghorn antelope from using riparian vegetation inside of exclosures was considered but was rejected due to excessive costs. Estimated material and labor costs for a 1/4 mile of 4 wire strain fence was \$736.00. Estimated cost for a deer proof fence was \$2,931.00 per 1/4 mile, resulting in initial costs 4 times greater than the cost of 4 strain fence. The deer proof fence would also have greater visual impacts to wilderness values than a 4 strand wire fence. These types of fences may result in greater mortalities to big game by entanglement or entrapment, however, fencing even built to deer and antelope specifications are hazardous to big game. It is believed that current big game populations are not high enough to significantly impact riparian area vegetation due to grazing.

2. Do Not Construct the Fences and Water Developments and Do Administratively Prohibit Livestock Grazing in the Twin Peaks Allotment

This alternative would meet the objective of improving the condition of most riparian areas in the Twin Peaks Allotment. However, to eliminate use in the project areas would require that the majority of the allotment (an area of approximately 365,000 acres) would be closed to livestock grazing. This is due to the wandering nature of cattle. A closure of this magnitude would be inconsistent with the direction provided in the Cal-Neva MFP, and current Bureau policy. Wild horses and burros would continue to overgraze many riparian areas even in the absence of cattle. Therefore, this alternative will not be further considered.

III. Affected Environment

A. Soils

The majority of the upland soils in the project sites are volcanic in origin, generally shallow loams with a basalt stony surface. The upper elevations are generally steep and rock outcrops are common. Lower position soils are residuum and colluvium from basalt. Riparian soils are typically poorly drained, fine textured, and high in organic matter.

B. Water

The proposed actions occur primarily within the Smoke Creek and Buffalo Creek watersheds and would have immediate effects upon associated riparian areas. Smoke Creek and Buffalo are two of the longest perennial creeks within the Cal-Neva Planning Unit. Water quality probably meets the Lahontan and Washoe Basin plan Standards, although it could be improved (George Wingate, BLM, Susanville District, per. com.)

C. Vegetation

The uplands generally supports a sagebrush-grass vegetation typified by a high proportion of big sagebrush on the deeper soils and a high proportion of low sagebrush on the shallow soils. Bluebunch wheatgrass is often dominant on the high condition areas, and is replaced by cheatgrass on the poor condition areas. At low and mid elevations, Wyoming big sagebrush, low sagebrush, and Lahontan sagebrush are common. Mountain and low sagebrush occur at elevations above 6,500 feet, as does western juniper on rockier sites. The upper slope vegetation is often in good vigor and range condition is fair to good. The upper slope is often steep and rocky and receive little livestock use except when the weather is cool. Range condition and perennial grass vigor is frequently lower as elevation and slope decreases.

Riparian vegetation is currently dominated by exotic, primarily Bird's foot trefoil, a pasture legume and Kentucky bluegrass. Baltic rush, 3-sided rush, Cudweed sage, and Nebraska sedge are other common species found in the Twin Peaks riparian communities. Riparian areas in fair to good vegetative condition typically consist of varying amounts of

grasses and grass-like plants such as sedges, and rushes. Shrubs such as coyote and arrayo willows and occasional tree such as cottonwood, or red willow. Grasses include tufted hairgrass, bluegrass, and meadow barley.

The Smoke Creek, Buffalo Creek, and Parsnip Creek riparian areas show negative impacts due to their historic use from livestock and wild horse and burros and from travel corridors. The impacts have been lowered water tables, eroding banks, a loss of riparian-associated plants and invasion of sagebrush along the banks. Some riparian area vegetation such as willows and roses have improved in frequency and vigor over the last 3 years due to periodic herding of livestock. However, productivity is currently low compared to the site potential.

D. Wildlife

Approximately 200 species of wildlife inhabit or migrate through the Twin Peaks Allotment. Mule deer, pronghorn antelope, sage grouse and chukar are the dominant game species occurring in the project area (See Cal-Neva DEIS - Appendix E for a detail listing of wildlife species). Most of the proposed projects are within crucial deer winter range. This winter range was the topic of an extensive Technical Review Team, whose purpose was to improve the deer habitat. The winter range is limited for mule deer because of a lack of browse potential on the uplands. The proposed projects would enhance winter habitat for mule deer by increasing and enhancing riparian shrubs and trees which provide forage and thermal cover.

Some species of wildlife which depend on wetlands, meadows and riparian areas expected to benefit from the projects are: Great Blue Heron, Great Egret, Swainson's Hawk, Northern Harrier, Prairie Falcon, Gray Flycatcher, Say's Phoebe, Cliff Swallow, Mountain Bluebird, Rufous-Sided Towhee, Sagebrush Vole, and Common Kingsnake. Resting and migration stopover ponds, and wet meadows will be enhanced by the projects, benefitting Mallard, Green-winged Teal and other migratory waterfowl. Many other mammals, birds, insects, and reptiles will benefit from the increases in vegetation structure, diversity and vigor.

Special status wildlife species include the Great Basin Willow Flycatcher (FC2) range extends in to the area of the proposed projects. Successful enhancement and protection of continuous willows stands will increase reproductive opportunities for this species, decreasing the possibility of threatened or endangered listing.

E. Fisheries and aquatic resources

Fisheries and aquatic resources include Lower Smoke, Parsnip, and Buffalo Creeks that all provide habitat for native warmwater fish species: Tahoe sucker, speckled dace, and Lahontan redband. The springs have not been surveyed for fish. The fish habitat in the creeks could be improved by increasing overhanging vegetation, such as willows (presently at 15% stream overhang in nearby Parsnip Wash and 9% Lower Smoke), which provides shade for reduced temperature. Vegetation also provides cover from predators, instream cover from root

systems, leaf matter for invertebrate food production and substrate for invertebrate food production.

Lower Smoke Creek also is potential habitat for the Lahontan tui chub (*Gila bicolor obesa*), a category 2 candidate for federal listing. This species is found upstream of the project site, (Sato unpub. data). The area is limited in the amount of the slightly deeper pool habitat that the Lahontan tui chub has been observed using in other systems. Lower Smoke Creek also currently has a high amount of fine sediment (most of the pool substrate) overlying gravel. The fines could also be limiting invertebrate production, consequently adversely affecting the Lahontan tui club, which feeds primarily on invertebrates, as well as the other fish species.

The springs have not been inventoried for aquatic organisms; however, 2 of the springs (Coyote and Phone) are in the vicinity of known populations of a newly discovered springsnail (*Pyrgulopsis species B*), which has been recommended as a species of special concern status for California (Hershler 1990). [Full citation: Hershler, Robert. 1990. Status survey of hydrobiid snails in the Great Basin of northern California. Final report for the California Department of Fish and Game Contract FG-8502.] The snails require the spring-associated vegetation for food, cover and substrate. The condition of the vegetation (see Vegetation section) limits the habits available to the springsnails.

The creeks contain Pacific treefrogs and, based on species distribution, probably provide habitat for western toad and Great Basin spadefoot. Although the springs have not been inventoried for amphibians, other springs in the vicinity are also know to provides habitat for Pacific treefrog and probably provide habitat for western toad and Great Basin Spadefoot. The amphibians require the spring-associated vegetation for cover, food for tadpoles, and substrate for invertebrates. The condition of the vegetation (se Vegetation section) limits the habitat available to the springsnails.

F. Special Status Plant Species

There are no special status plants requiring management consideration known to occur at any of the projects sites. Three species listed as rare by the California Native Society were found at two of the sites. *Polygala subspinosa*, CNPS List 2, plants rare or endangered in CA and elsewhere occurred at the Coyote Spring Enhancement project and at the Phone Spring Enhancement. This plant is grazed by large ungulates but due to its spiny nature is not greatly impacted under normal grazing levels. This plant is rather abundant in the Deep Cut, Bull Flat, and Five Springs area. *Astragalus argophyllus var argophyllus*, another CNPS List 2 plant, also occurred at the Phone Spring Enhancement. This plant is not noticeably grazed by large ungulates but could be impacted by trampling. All of the plants at this site (approximately 12) will be within the enclosure.

Camissonia boothii ssp. alyssoides, a CNPS List 4 Plant of Limited Distribution-A Watch List, also occurs at the Coyote Spring Enhancement Project site. This plant is an annual plant, often abundant in a good precipitation spring. It is usually not grazed by large ungulates. One species listed on the Northern Nevada Native Plant Society's Watch List, *Scutellaria holmgreniorum*,

is present at the Middle Fork Riparian Drift Fence. This plant is not grazed by anything and will not be impacted by this project.

G. Wild Horses and Burros

The proposed spring exclosures and drift fences lie within the Twin Peaks Herd Management Area. Small bands of wild horses or burros have been observed in the vicinity of the projects. Seasonal migrations of wild horses and burros occurs primarily for those animals using the higher elevations if snow depth covers the available forage. During low snow fall years the wild horses generally have not migrated if forage is adequate. The burros tend to prefer the lower elevation areas and are generally observed on the southwest side of Burro Mountain. Up to 400 wild horses and 80 burros periodically occur in the project area throughout the year.

H. Wilderness

In wilderness study areas, fences are allowed but are subject to the Interim Management Policy and Guidelines (BLM Manual H-8550.1). The proposed action affects five WSA. The 1987 Eagle Lake/Cedarville Wilderness Final EIS recommended areas suitable and unsuitable. The proposed fences are located in areas recommended as suitable and in areas recommended unsuitable for wilderness designation (see attached maps).

<u>WSA NAME</u>	<u>NUMBER</u>	<u>ACRES</u>	<u>PROJECTS</u>	<u>MAP REFERENCES</u>
Dry Valley Rim	CA-020-615	95,025	1 fences/3 miles	# 1
Buffalo Hills	CA-020-619	94,308	1 fences/1 mile & 2 exclosures.	# 2
Twin Peaks	CA-020-619A	46,143	4 fences/3 miles	# 3
Poodie Mountain	NV-020-012	145,756	1 exclosure	# 3
Five Springs	CA-020-609	50,401	2 exclosures	# 4
TOTALS		431,633	5 EXCLOSURES AND SEVEN MILES OF FENCE	

I. Cultural Resource

An archeological survey will be completed and section 106 Compliance completed on all projects prior to implementation.

J. Livestock

The proposed project is within the Twin Peaks Allotment which has been operating under an AMP for 8 years and is permitted to Espil Sheep Company and Earl N. Laver for grazing. The grazing system is a two pasture, growing season deferred grazing system; livestock are turned out into one pasture and then may be moved into the other pasture after July 1, depending on forage and water conditions. The turnout pasture is then rotated between the two pastures, allowing rest during the growing season for about half the allotment each year.

Livestock owned by Espil Sheep Company (rather than Earl Laver) are the primary users in the project area and vicinity. Presently, grazing use is restricted to proper utilization

levels annually. However, the operators have had difficulty controlling their cattle to conform to this restriction most notably in riparian areas and upland meadows and are in favor of fence construction in order that grazing can be more adequately controlled.

IV. Environmental Consequences

A. Proposed Action

1. Soils

During construction, soils should be impacted minimally along the fence line. In the long term, soils would benefit by the construction of the fence and the implementation of a better defined livestock grazing regime. Soils would be periodically deferred from livestock impacts. This would benefit the soils structure over time by thus providing a better growing medium for perennial vegetation. In addition, soil litter would improve over time due to periodic grazing deferment enabled by the fences. This would also provide a more desirable environment for seedling establishment and improved soil productivity.

This amount of soil disturbance should be visible on the site and past experience has shown that in 2 to 5 years riparian associated vegetation would recover the disturbed soils.

2. Water

Portions of lower Smoke Creek, lower Rush Creek, Parsnip Creek, and Buffalo Creek riparian areas would benefit from the deferment in livestock use enabled by the proposed drift fences. Willows, rose and associated riparian vegetation species would improve in vigor resulting in an improvement to the water table along the creek. Aside from vegetative treatments, the proposed action would allow for the best possible upland ground cover and thus the least erosion and sedimentation. Water quality would improve from periodic rest in the watershed. It is difficult to predict overall water quality improvement, however, due to private lands above the proposed riparian pastures. The fences would allow better livestock control on the riparian areas and would protect spring sources from the trampling and pollution by livestock, wild horses and burros. Once the proposed fencing is in place livestock allowed to use the pastures can be more easily moved when recommended utilization levels or prescribed time limits are reached.

3. Vegetation

During construction, vegetation would be impacted minimally along the fencelines. The sagebrush vegetation along the majority of the proposed fencelines is often sparse and can easily be avoided by the vehicle used to construct the fence. However, some crushing of brush due to construction activities is expected.

Under current livestock management practices livestock use pattern would not change in the uplands in the vicinity of the spring improvements and exclosures. Since riparian areas are the most resilient of all ecological sites, vegetation improvements would be rapid. The

perennial vegetation in the pastures would benefit by the construction of the fences and implementation of a better defined grazing regime. The separate pastures would have tight controls over the season, duration and intensity of livestock use.

4. Wildlife

Riparian and wetland areas protection and management should result in expansion/enhancement of those resources. Livestock management enabled by the proposed action could greatly improved sage grouse and other upland game bird and nongame bird habitats since they use riparian areas for brooding, particularly in late summer. Protection and enhancement of spring-heads and riparian areas through excluding of livestock and wild horses and burros would benefit mule deer since these areas serve as fawning areas and provide much needed nutrition for lactating does. The enhanced riparian areas and meadows could also serve as kidding areas for antelope. Greater livestock control allowed by the proposed action would benefit the crucial deer winter range. Competition for food from livestock would be significantly reduced and thermal cover (willows and rose) would be enhanced over the long term.

The fence would not pose any significant impediment to antelope because they would be able to pass under and/or around the fences. However, even fences built to deer and antelope specifications may result in some deer or antelope mortalities. During actual construction or development of the various projects, some temporary displacement of resident wildlife and/or livestock, wild horses and burros would occur.

5. Fisheries and aquatic resources

The short-term effects of temporary increased sediments into the creeks from the fence construction should not affect the fish habitat. The long-term effects, discussed below, would more than compensate for the temporary effects of the sediments.

The control of livestock and WH&B in the areas of the creeks and springs should result in improved habitat for the fish and other aquatic organisms. Control should result in increased growth of the woody vegetation, such as willows, and in increased height and amount of the spring-associated species. This means an increase in the overhanging vegetative cover, and increased substrates for invertebrates and springsnail. This would increase the potential of sustaining any springsnail and amphibian populations that may use the springs, increase the potential of the creeks to sustain fish and amphibian population, and increase the potential of Lower Smoke Creek to provide pool habitat for the Lahontan tui chub.

The no action alternative could result in loss of any springsnail population that are present in the springs because of continued disturbance and loss of habitat. Although the native warmwater fish species population may not decrease and probably would not go locally extinct under the no action alternative, they would also not improve to a more assured sustained level. There would be potential for increasing available lateral root-scour pool habitat for

Lahontan tui chub through the current increase in woody vegetation in Lower Smoke Creek but at a slower rate.

6. Special Status Plants

No special status plants or other listed rare plants will be adversely affected by the proposed action. The periodic deferment from grazing should benefit the vigor of the plants.

7. Wild Horses and Burros

Topography is being used as a natural livestock barrier for large portions of the livestock pastures, or use areas that would be created by fence construction. Horses and burros still would have access to the creeks on the open ends of the fence. In comparison, wild horses tend to traverse steep rocky areas and livestock tend to avoid steep rocky areas. During construction there would be a short term restriction disturbance to wild horses and burros due to the presence of workers at the project site. Water would be available to livestock, wild horses and burros from other sources near all of the proposed projects.

8. Wilderness

The BLM's wilderness inventory determined that the Wilderness Study Areas (WSA) affected by the proposed action meet minimum standards for naturalness. Naturalness for a wilderness study area means that the WSA "generally appears to have been affected primarily by the forces of nature which the imprint of man's work is substantially unnoticeable" (Wilderness Act of 1964). In these WSA, the imprint of man's work is related to major access roads that are maintained by the county or BLM. These roads often serve as WSA boundaries. Other improvements include facilities to support livestock grazing and access roads and ways for construction and maintenance of the facilities as well as for camping and hunting. Areas along the periphery of the WSA contain most of the short vehicle roads and ways, scattered reservoirs and spring developments.

Cumulative impacts of the proposed action would not have disqualified the area from being identified as a WSA and would not create an aggregate effect upon the area's wilderness characteristics that would constrain the Secretary's recommendation with respect to the area's suitability for the preservation of wilderness.

The fences would meet the non-impairment criteria outlined in BLM Manual H-8550 and reclamation Instruction Memorandum No. CA-89-306. Although fences are considered a long term development with a life span of greater than 20 years, the fences can be easily removed without impacts to the naturalness of the WSA.

Naturalness would be minimally impaired by the addition of 7 miles of fence. For example, the proposed Lower Smoke Creek # 2 fence would be substantially unnoticeable in the Dry Valley WSA as a whole. Viewers on the Smoke Creek Road would only be able to

see the fence where it would cross Smoke Creek Road, and for a short distance to the south of the road. It may be that the top portion of fence may also be discernible from the road. Wilderness values would be enhanced with fence construction by allowing for the resting of riparian areas and upland vegetation that has been identified as needing improvement. The overall naturalness of this area would be enhanced.

During the construction process, there would be a short term loss of solitude due to the presence of workers and noise of the helicopter delivering materials to the site. Vehicle access along the fence line is limited to one vehicle commonly used in the construction of fences and would be limited to one way travel only. The surface disturbance would be minor with the limitation of travel. Construction time is estimated to be 4-10 days per project.

9. Other Impacts of Proposed Action

Implementation of the proposed action would result in the creation of a pastures which would encompass several miles of riparian habitat as well as several thousand acres of adjacent uplands and benches.

Currently, the grazing permittee spends an inordinate amount of time herding his cattle out of riparian areas in an effort to allow it to improve in condition. Fence construction would eliminate livestock from the creek when not authorized to use the newly-created pastures. This would necessitate fewer and more efficient compliance checks by BLM. A reduction in drift through fencing would encourage amicable relationships among permittees, affected interests, and the BLM.

Livestock rarely use the steep-sloped uplands and forage production on the bench areas is relatively scanty within the area encompassed by the proposed fence. Therefore, the utility of the area for livestock grazing in the short-term following implementation of the proposed action would not differ significantly from what it is currently.

B. No Action Alternative

Under the no action alternative the impacts associated with the proposed action would not occur. Without the fence, livestock drift would continue into the riparian areas. Management of livestock would continue to be difficult, and riparian objectives would not be met.

C. Mitigation Measures

The Parsnip Spring, Phone Springs, and the Parsnip/Buffalo enclosure would be modified to avoid culture resources near the spring source. Proposed pipeline routes have been moved to avoid culture resources. There will be no ground disturbances where culture resources sites are found.

D. Residual Impacts

Naturalness in the WSAs would be slightly impacted with the addition of the fence and spring enclosures, but wilderness suitability would be maintained. Wild horse and burro movement may be slightly impeded by the proposed fences.

E. Cumulative Impacts

The 7 miles of fence would add to the manmade intrusions in the five separate WSA's. In addition, the fences add to the total maintenance responsibilities of the permittee, which they already believe to be significant.

V. Mandatory Elements

The following critical elements of the human environment are not present or are unaffected by either the proposed action or alternative action: areas of critical environmental concern, wild and scenic rivers, unique farmlands, paleontological resources, mineral resources or threatened or endangered plants and animals species.

VI. Consultation and Coordination

A. Persons and Agencies Consulted

During July 1993, comments were solicited by letters to the following entities: Wildlife Management Institute; USDA-ASCS, Jeanni Conlan; Susanville Advisory Council; Roger Olson; Brent Espil; Nevada Wildlife Federation; Nevada Humane Society; Geraldine Olson; Intermountain Range Service; USDA-SCS, Stan Boltz; The Mule Deer Foundation, Jerry Lowery, Buck Fever; Hon. Barbara Vucanovich; Senator Harry Reid; Senator Richard Bryan; Nevada Department of Agriculture, Tom Ballow; University of Nevada, Sherm Swanson; Washoe County: Comprehensive Planning Department, Department of Development Review, Board of Commissioners; Nevada Department of Wildlife: Mark Warren, Rich Heap; Ormby Sportsmen's Association, Don Quilici; Nevada Woolgrowers Association; Senator Dean Rhoads; California Native Plant Society: Ray Bulter, Dr. Glen Holstein; The Life Foundation; Modoc Organized Sportsmen, Don Stahl; North American Trail Ride Conf.; Martin Nunette; California Mule Deer Association, Dano McGinn; California 4WD Association; Mountain Lion Foundation, Mark Palmer; National Wildlife Federation; National Audubon Society; Congressman Wally Herger; Jack Luntley; James Stocks; Backcountry Horsemen of California; Consulting Forester Engineer, Toler & Affiliates; North Counties Wildlife Association; Wild Horse Sanctuary, Jim & Deanne Clapp; North Counties Wildlife Conservation; John Weber; Modoc Farm Advisors Office; Lassen County: Fish & Game Commission, Planning Department, Cattlemen Association, Board of Supervisors, Organized Sportsmen of; Susanville District: Grazing Board, Advisory Council; Lassen Sportsman's Club; Earl Laver, permittee; Thomas Nunn: John Espil Sheep Company, permittee; Frank Hall California Fish and Game; The Whole Horse Institute, Mary Ann Simonds; California Department of Wildlife; Paul Clifford; Friends of Nevada Wilderness; The Wilderness Society, Joan Reiss; North District Environmental; Northcoast Environmental Council; BLM: California State Office, Nevada State Office; Butte Environmental Council; American Wilderness Alliance; Sierra Club: Tina Nappe, Yahi Group,

Shasta Group, Redwood Chapter, V.J. Gleadall, Motherlode Chapter, Toiyable Chapter, Christine Martinez, Legal Defense Fund, Inc.; Jim Young; Nevada Outdoor Recreation Association; Natural Resources Recreation Association; North Coast Friends of the River; CNPS Sacramento Valley Chapter: Betty Matyas, Jay Fuller; Environmental Management Services; Friends of the Plumas Wilderness; Friends of Nevada Wilderness; Citizen's Committee To Save Our Public Lands; California Wilderness Coalition; Plumas Wilderness Friends; Modoc Cattlemen; Eagle Lake Audubon Chapter, Shasta Cascade Wonderland Association; Sydney Smith; David Biek; and Glenn Nader University of California Co-op Extension Service.

A total of three comment letters were received in reference to the proposed action: from the Nevada Department of Wildlife, California Department of Fish and Game, and Nevada Commission for the Preservation of Wild Horses. All were in favor of the projects. Cal Fish & Game suggested changes to fence and water improvement design specifications (see attached letters).

Verbal comments were received from John Espil Sheep Company and Laver Ranches during the past year. The permittees were generally in favor of improving the riparian areas and have entered into cooperative agreements for project maintenance for all projects except the Stone Corral Exclosure (BLM maintenance).

The proposed actions were also addressed in concept in the 1982 Cal Neva EIS and the 1987 Eagle Lake Cedarville Wilderness EIS which was subjected to significant public review and comment. The Twin Peaks AMP addendum (March 6, 1992) emphasized lower utilization levels on portions Buffalo Creek, Parsnip Creek, and Smoke Creek.

VII. List of BLM Contributors

Susan Wannebo	Lands
Geoffrey Walsh	Wildlife Biologist
Steve Surian	Range Conservationist
Ken Visser	Supervisory Range Conservationist
Don Manuel	Archeologist
George Wingate	Watershed Specialist
Gary Schoolcraft	Botanist
Larry Teeter	Wilderness Specialist/Recreation
Ralph Mauck	Riparian/Wetlands
Gina Sato	Technical Review/Fisheries
Don Wannebo	Survey and Design

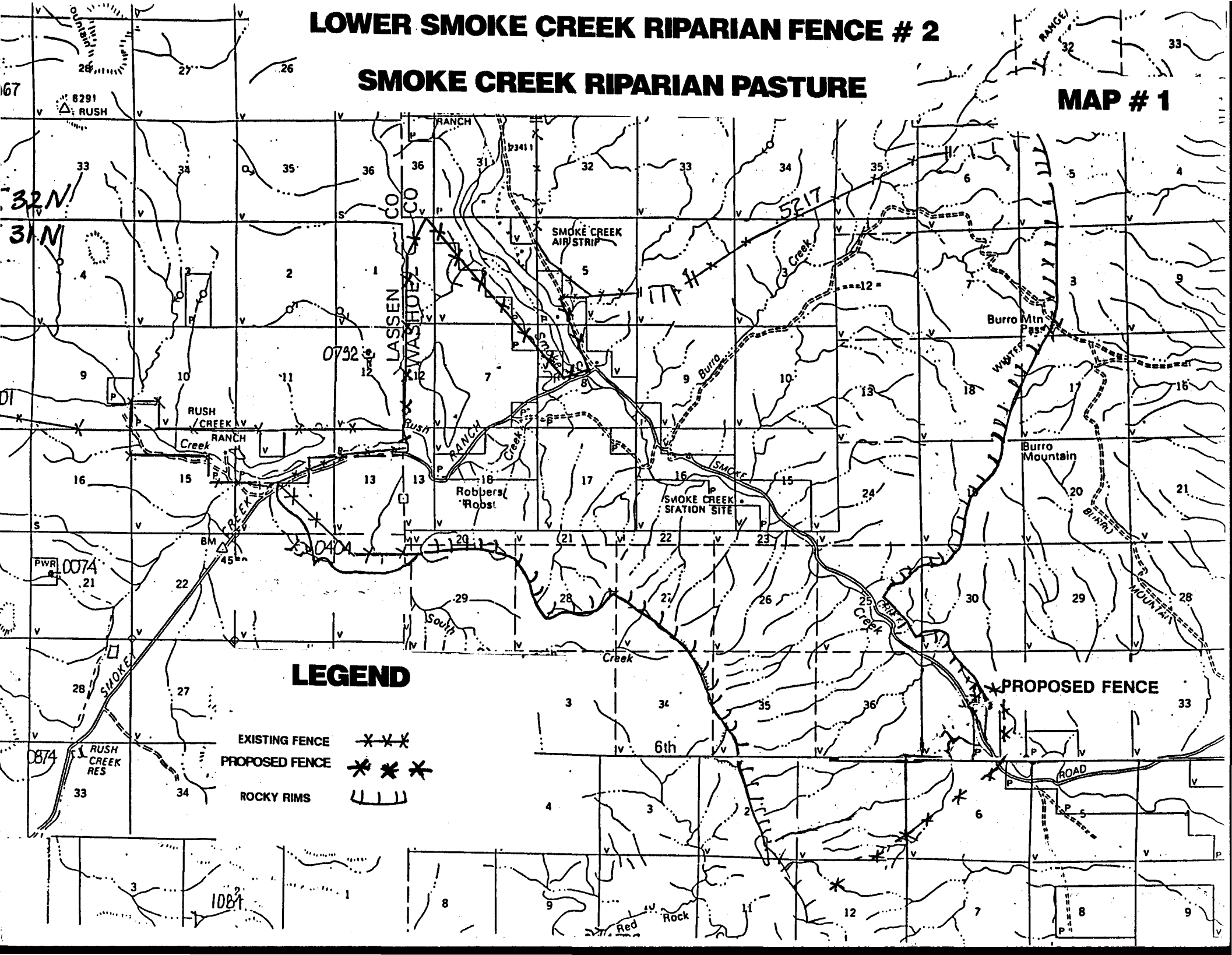
VIII. ATTACHMENTS

- (1) Project Site Maps and Spring Development Design Sketchs (1-14)
- (2) Wilderness Study Area Maps with Project Sites (15-18)
- (3) Comment Letters (3)

LOWER SMOKE CREEK RIPARIAN FENCE # 2

SMOKE CREEK RIPARIAN PASTURE

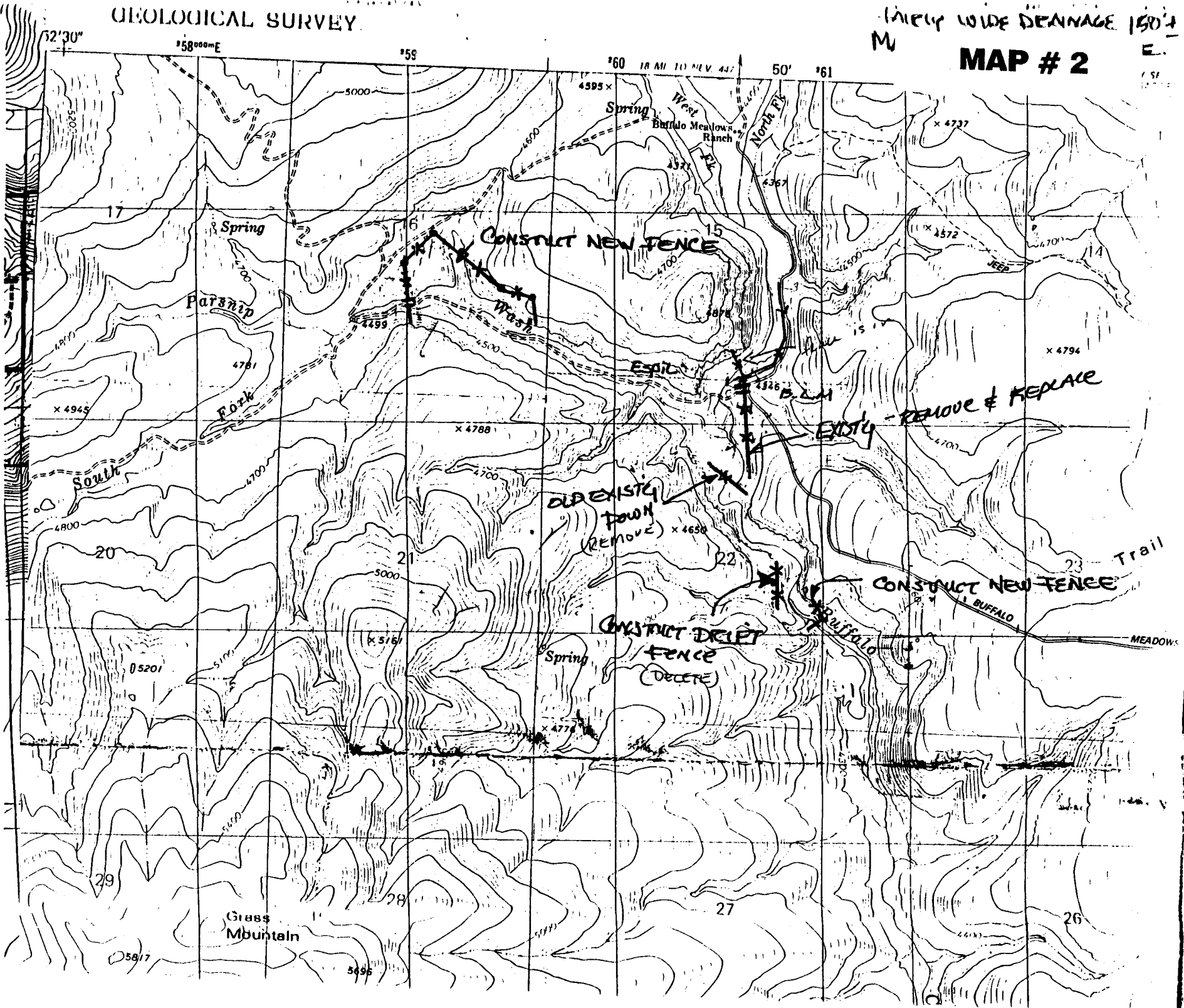
MAP # 1



LEGEND

- EXISTING FENCE * * *
- PROPOSED FENCE * * * *
- ROCKY RIMS ()

PARSNIP/BUFFALO RIPARIAN FENCE



WEST FORK BUFFALO RIPARIAN FENCE

T.34N. R.18E. SECTIONS 25 & 36

Spring

x 5856

Antelope Spring

x 5688

PRIVATE LANDS OF
JOHN CASEY

x 5606

x 5742

ANTELOPE

BASIN
TRAIL

x 5584

x 5468

West Fork Buffalo

T 34 N
T 33 N

PROJECT SITE ○

5454 x

Prairie Spring

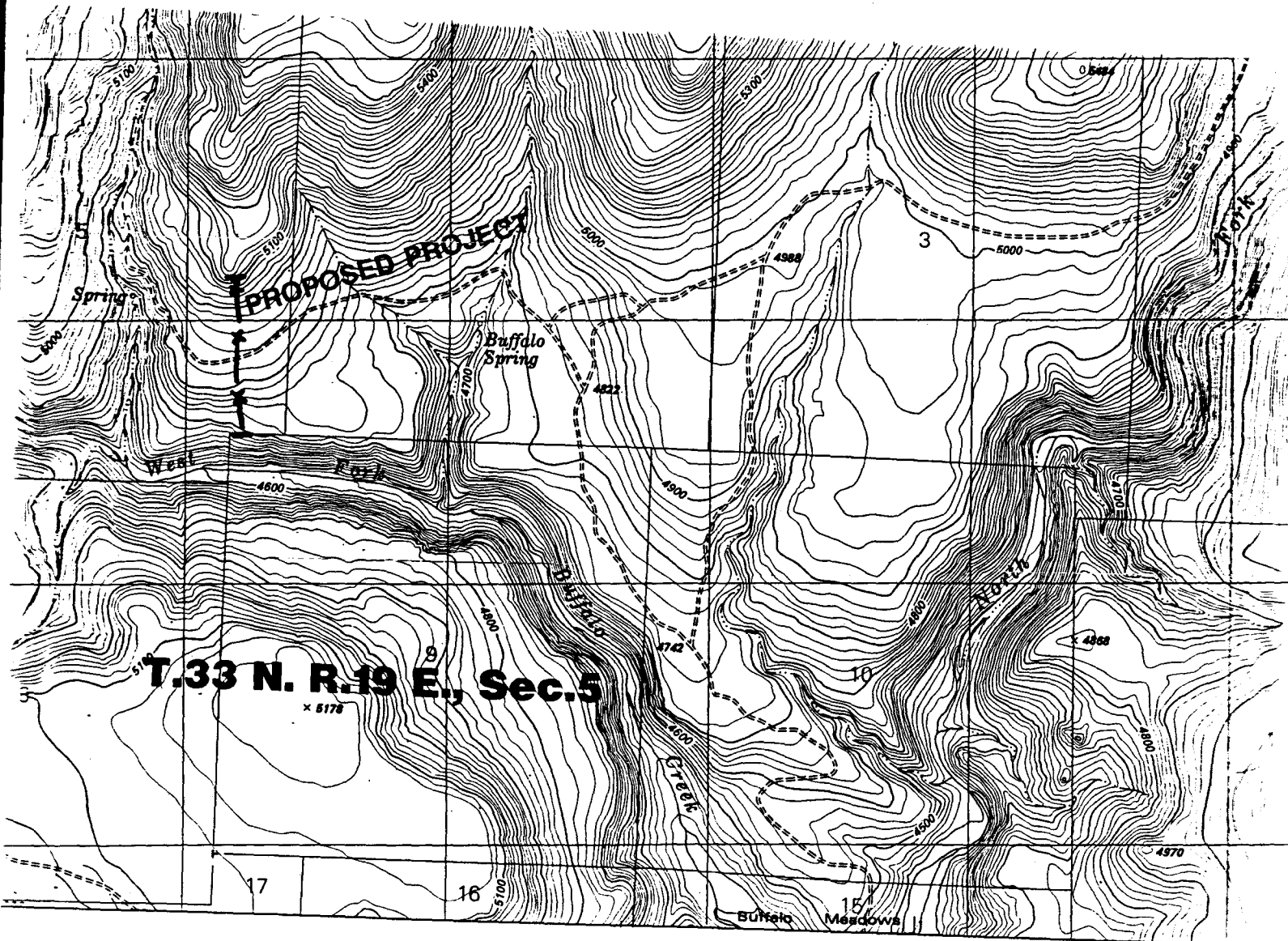
T 33 N

R 18 E
R 19 E

x 56

5682

MIDDLE FORK RIPARIAN DRIFT FENCE



BUFFALO RIPARIAN FENCE

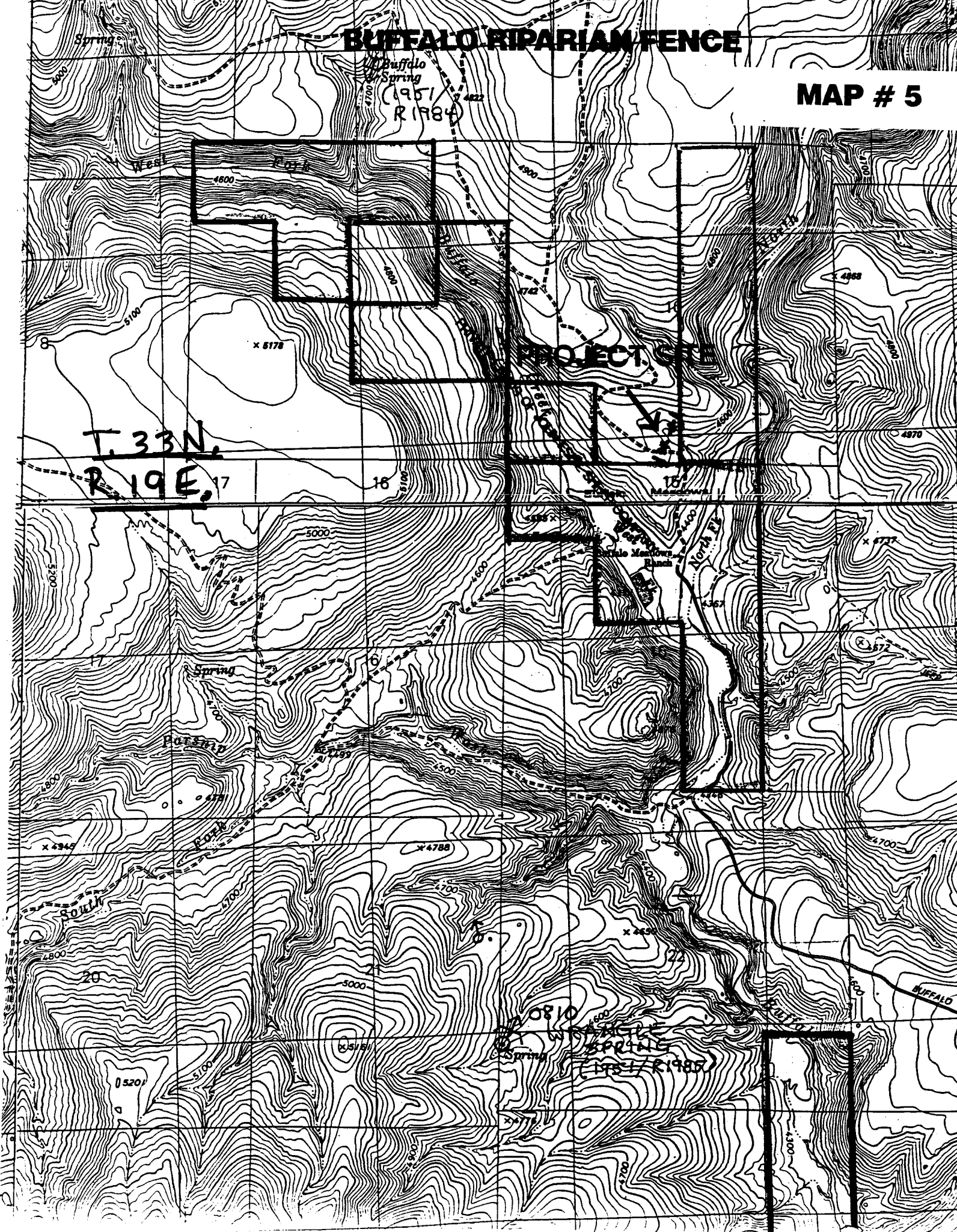
MAP # 5

Buffalo Spring
(1951/R1984)

T. 33N.
R. 19E. 17

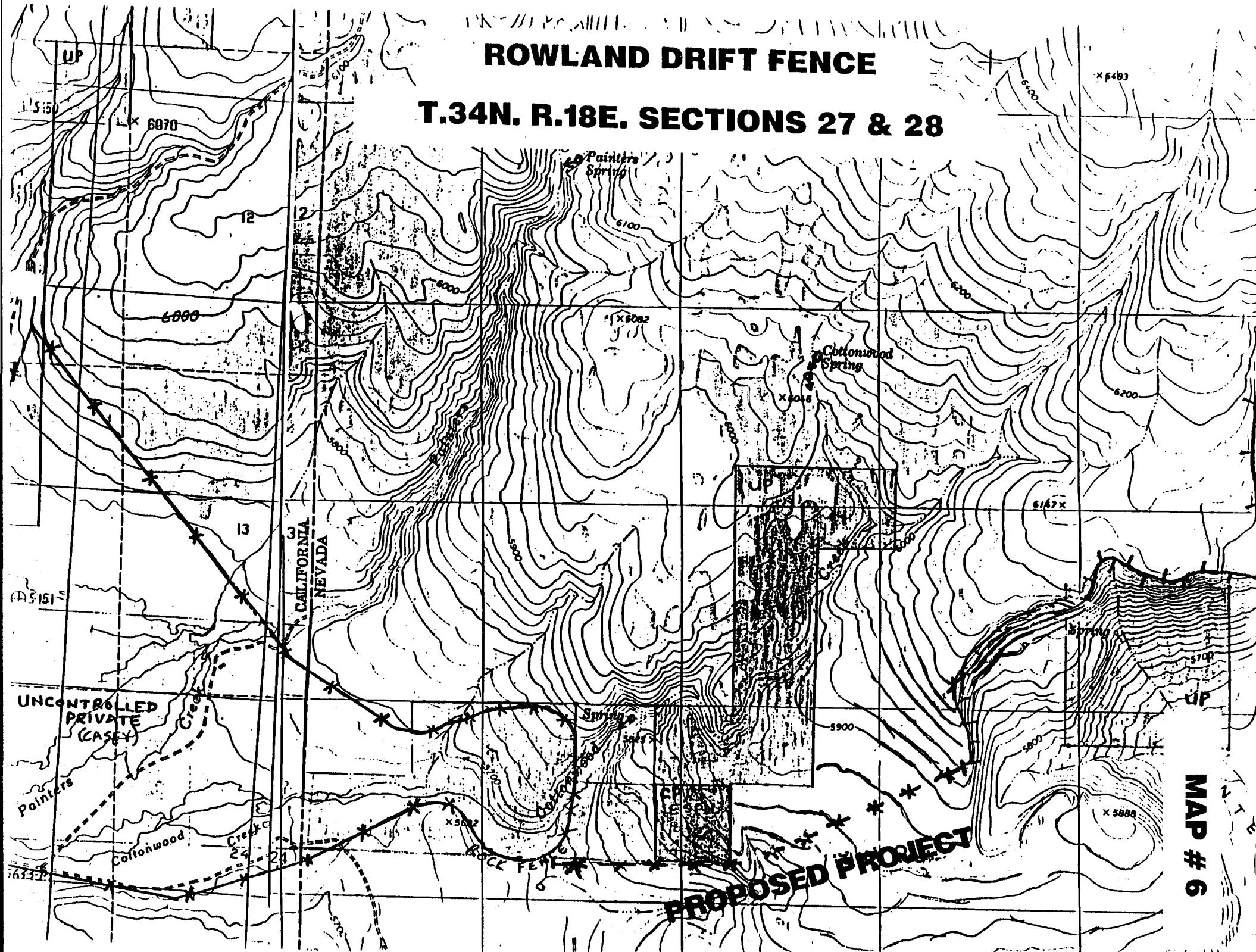
PROJECT SITE

SPRING
(1951/R1985)



ROWLAND DRIFT FENCE

T.34N. R.18E. SECTIONS 27 & 28

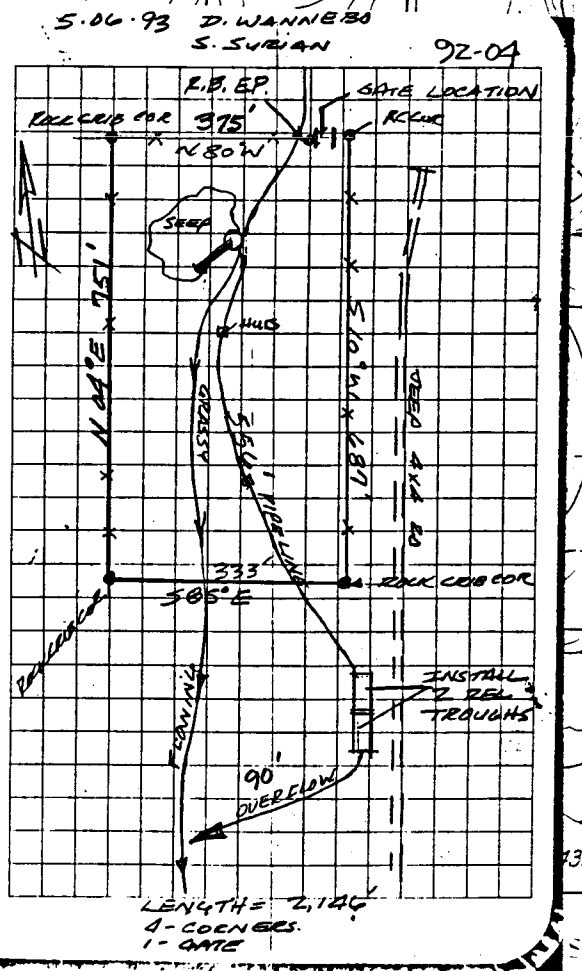
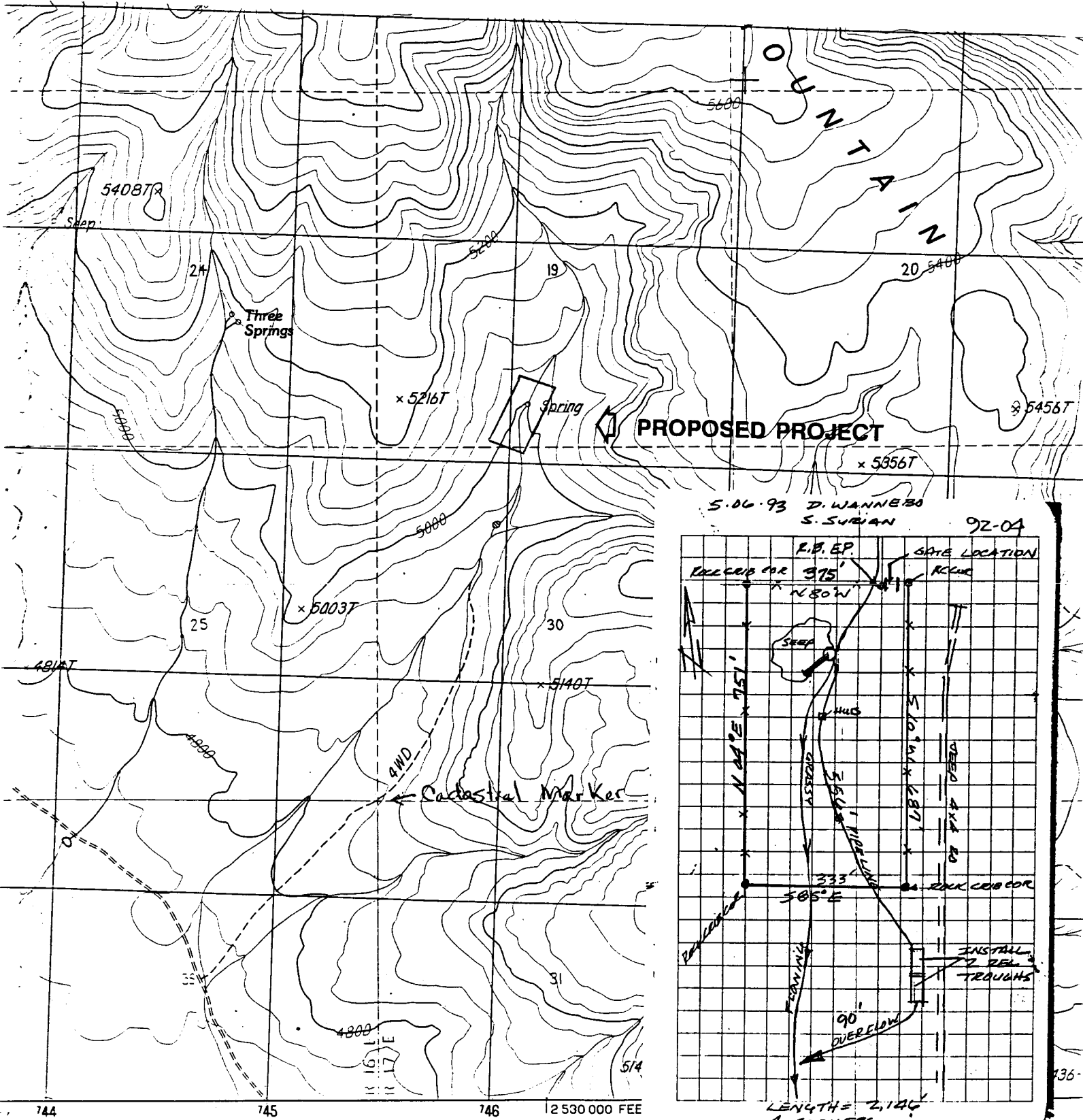


PROPOSED PROJECT

MAP # 6

COYOTE SPRING ENHANCEMENT

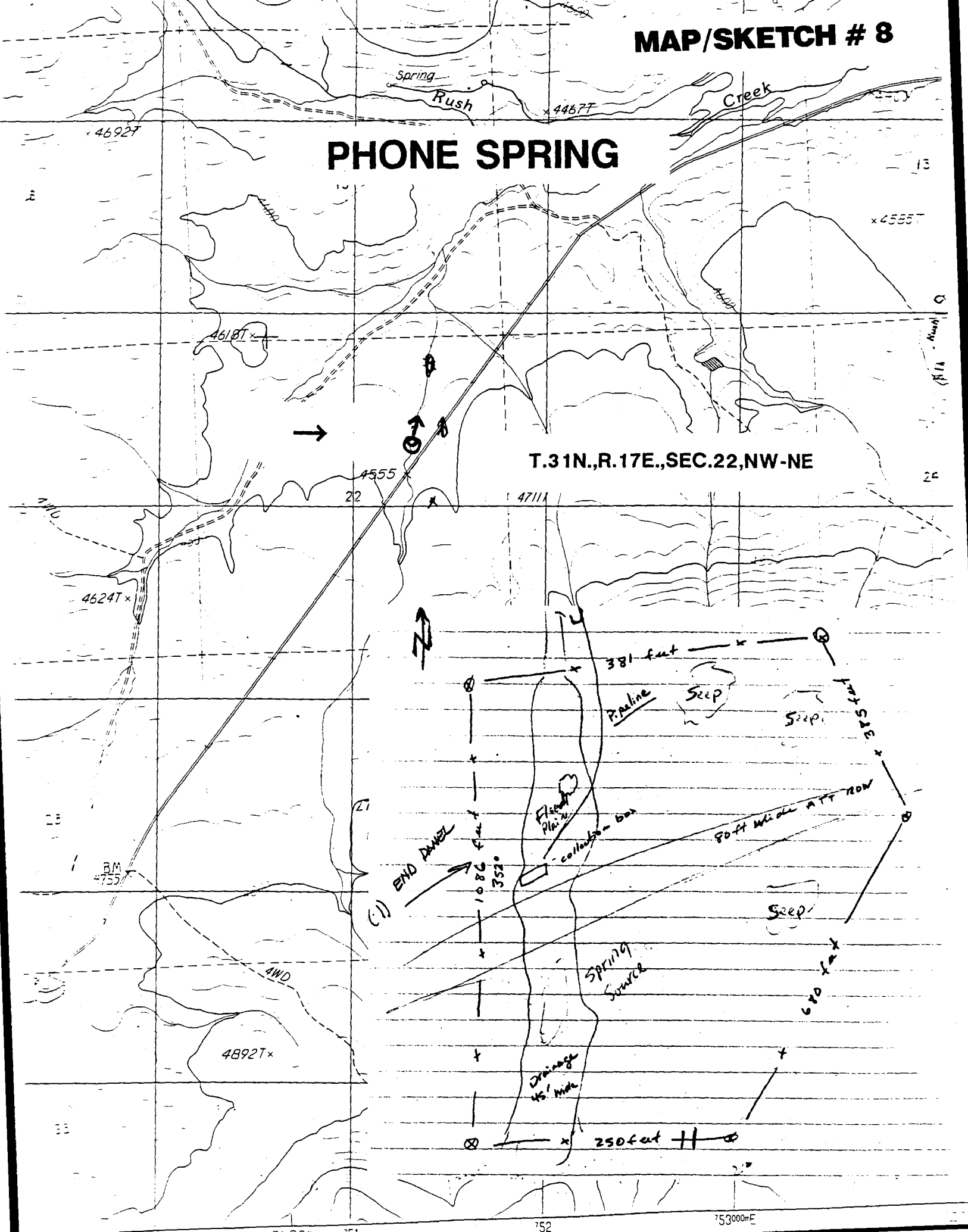
T.31N. R.17E. SECTION 19, SW1/4



MAP/SKETCH # 8

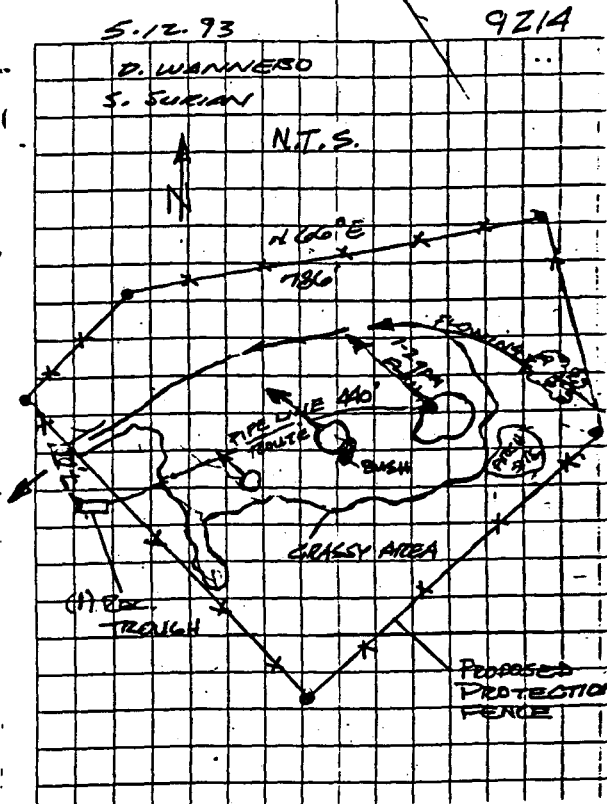
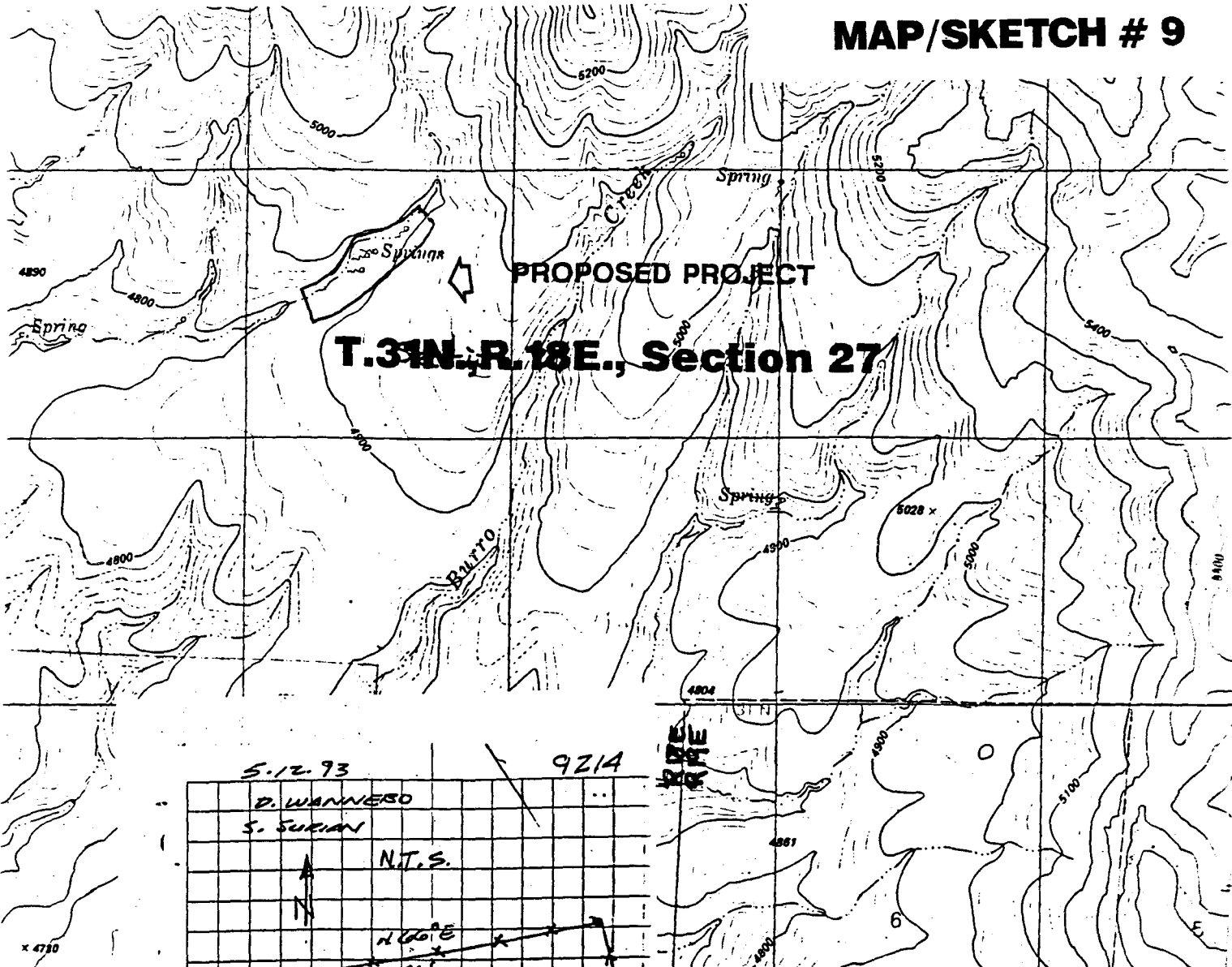
PHONE SPRING

T.31N.,R.17E.,SEC.22,NW-NE



SOUTH TWIN # 1 SPRINGS ENHANCEMENT

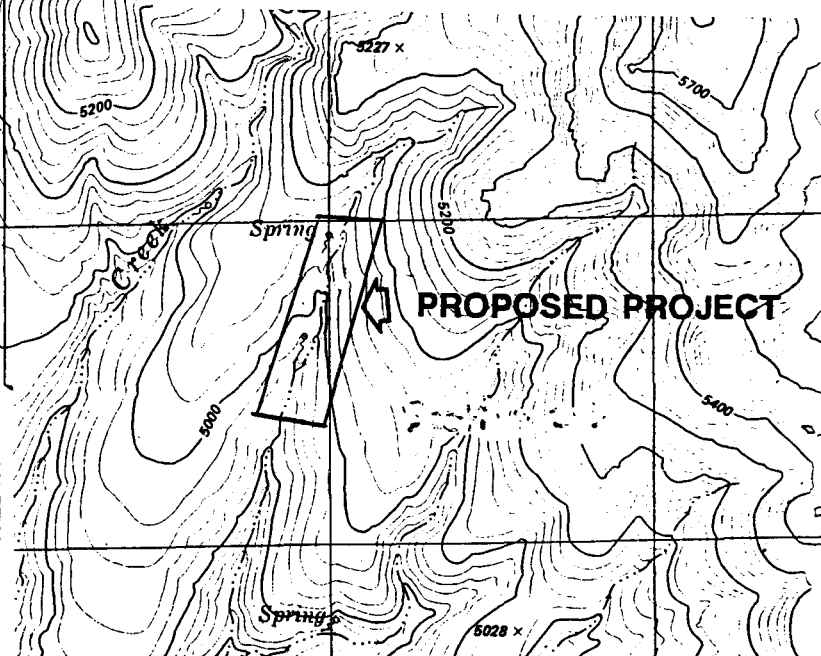
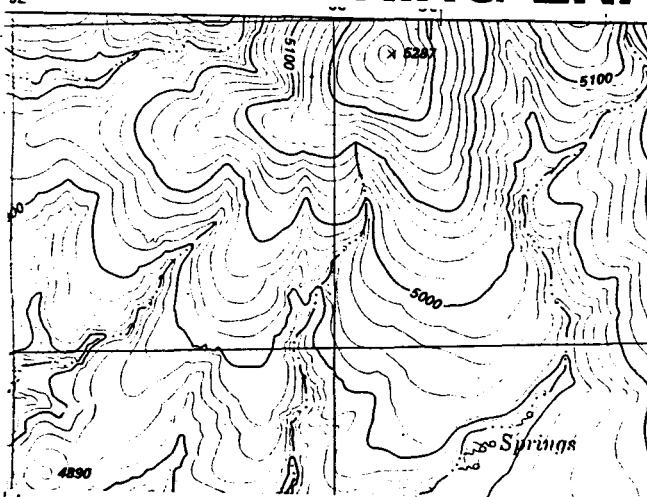
MAP/SKETCH # 9



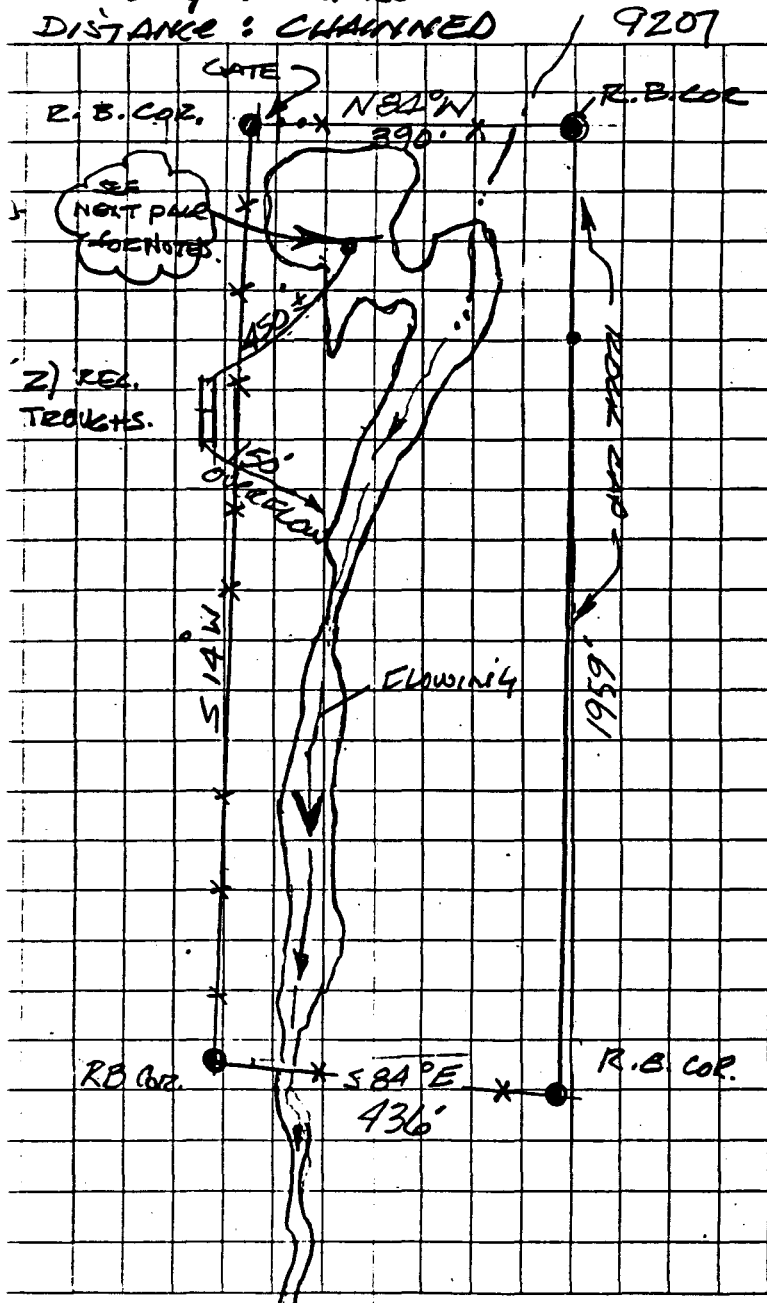
ENLARGED SKETCH

SOUTH TWIN # 2 SPRING ENHANCEMENT

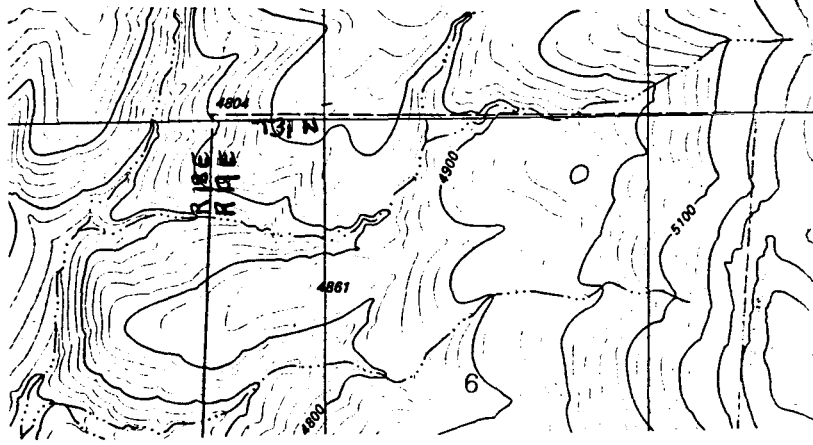
MAP/SKETCH # 10



BEARINGS: COMPASS
DISTANCE: CHAINED



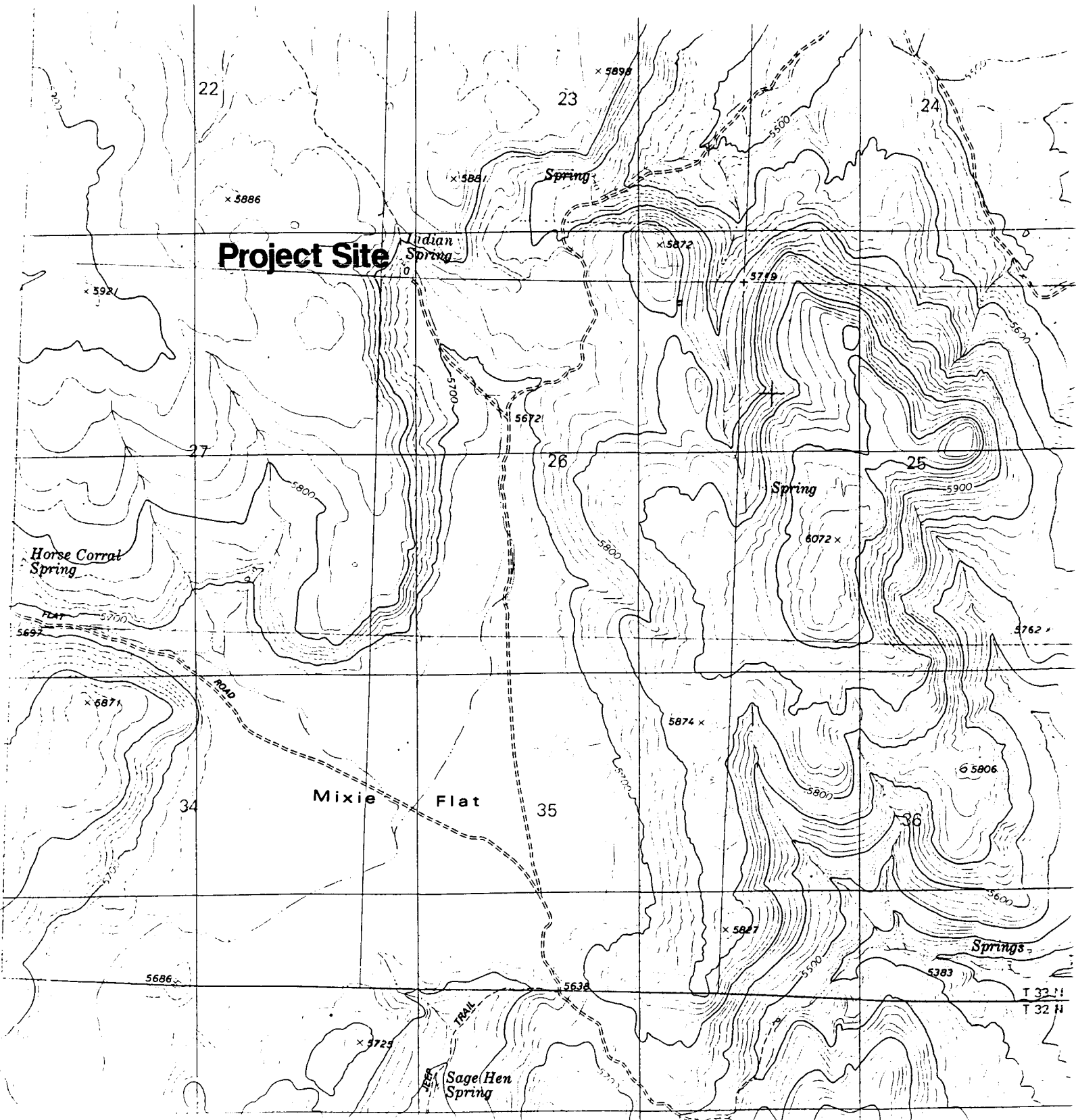
T.31N. R.18E. SECTION 26



ENLARGED PROJECT SKETCH

INDIAN SPRINGS RIPARIAN PROJECT

T.33N. R.18E. 23, SW 1/4



CHOKECHERRY SPRING ENHANCEMENT PROJECT

T.32N. R.18E S. 32

Mixie Flat

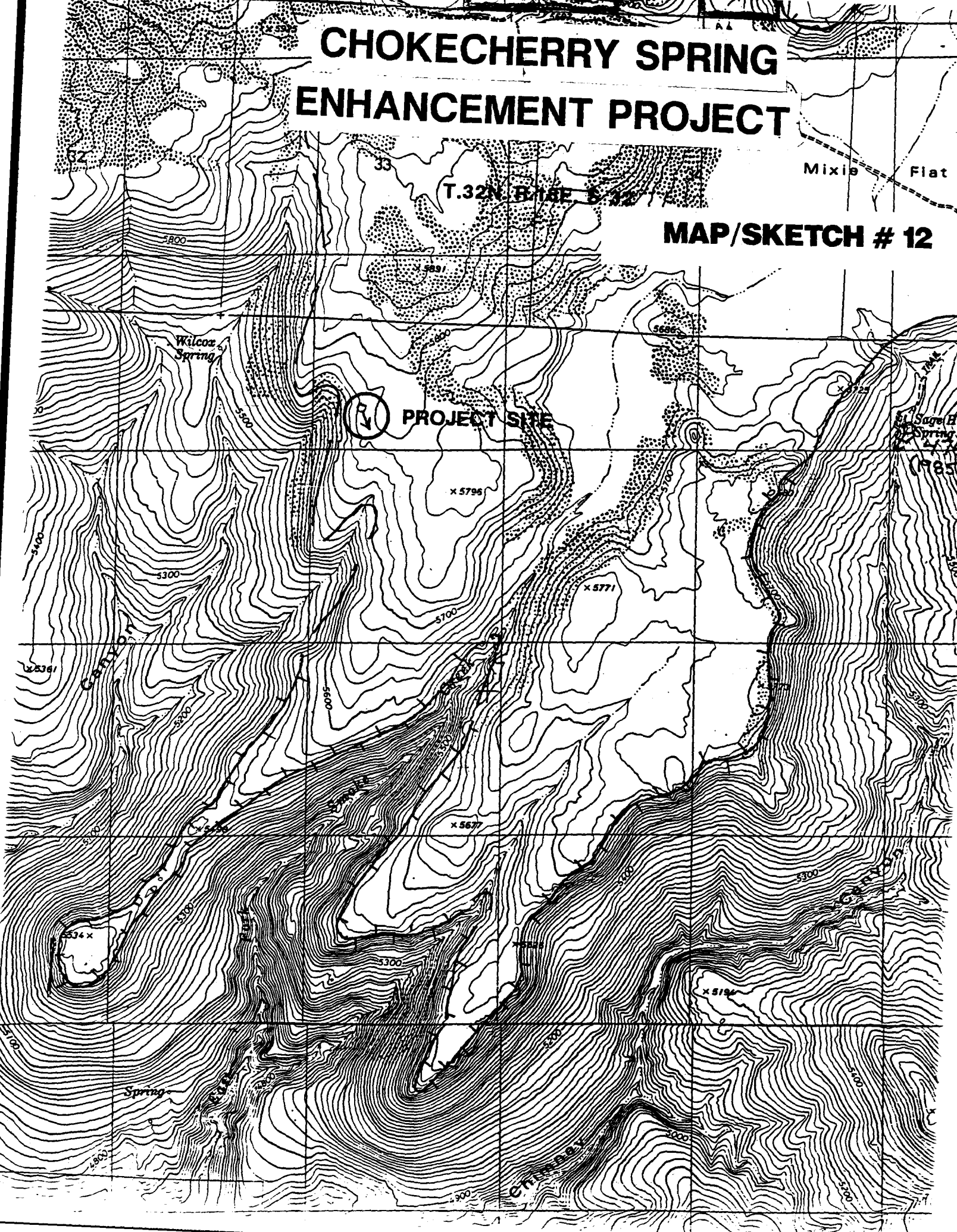
MAP/SKETCH # 12

(R) PROJECT SITE

Wilcox Spring

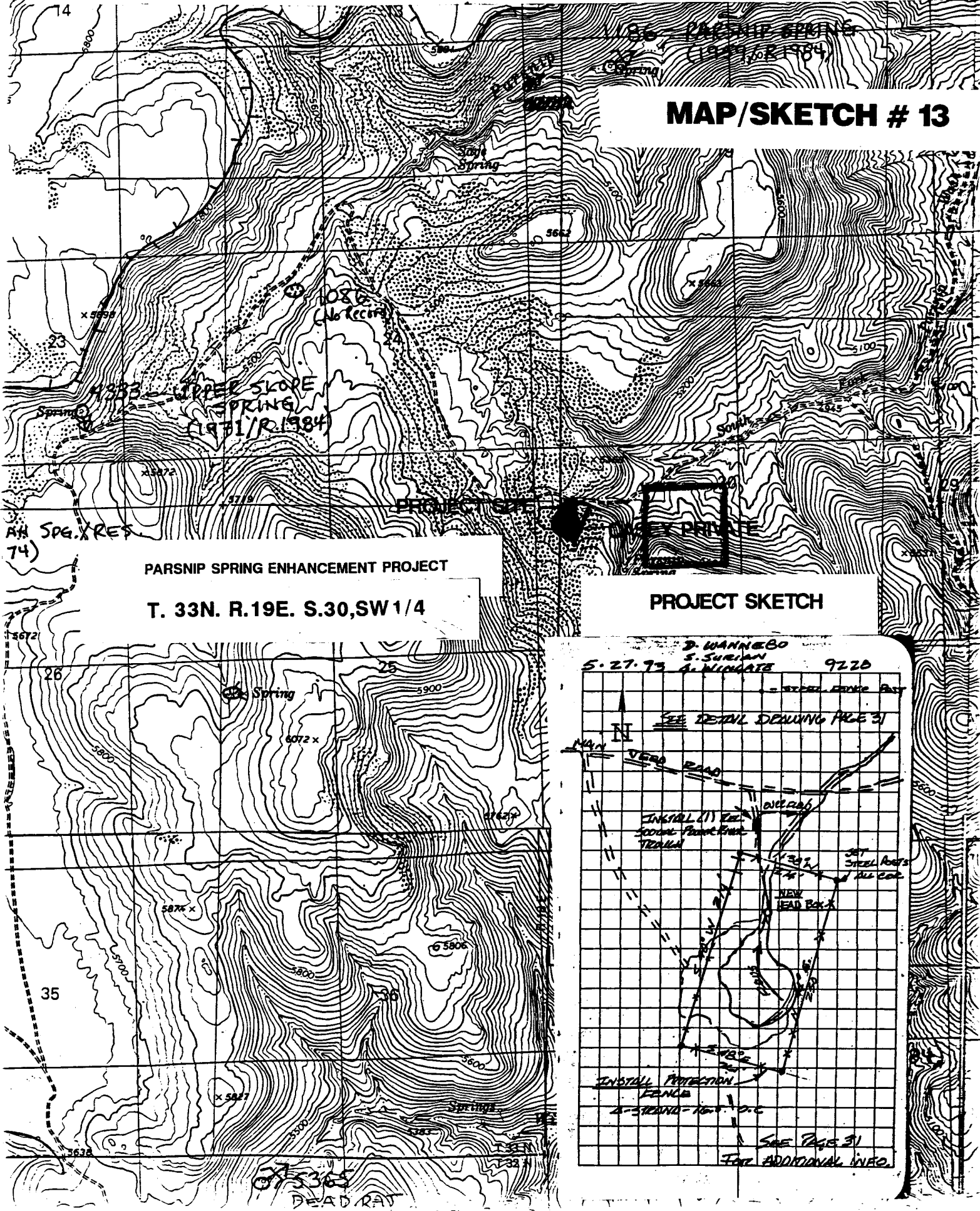
Sage Hen Spring

(1985)



PARSNIP SPRING ENHANCEMENT PROJECT

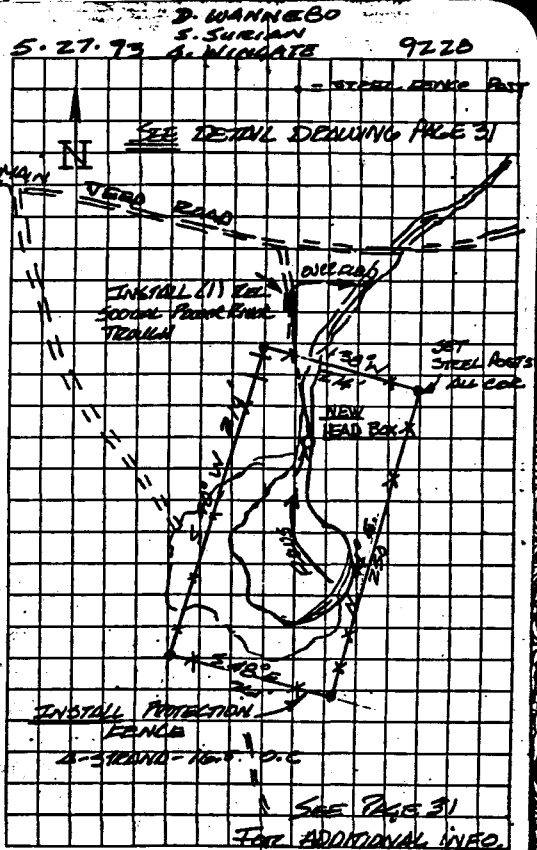
MAP/SKETCH # 13



PARSNIP SPRING ENHANCEMENT PROJECT

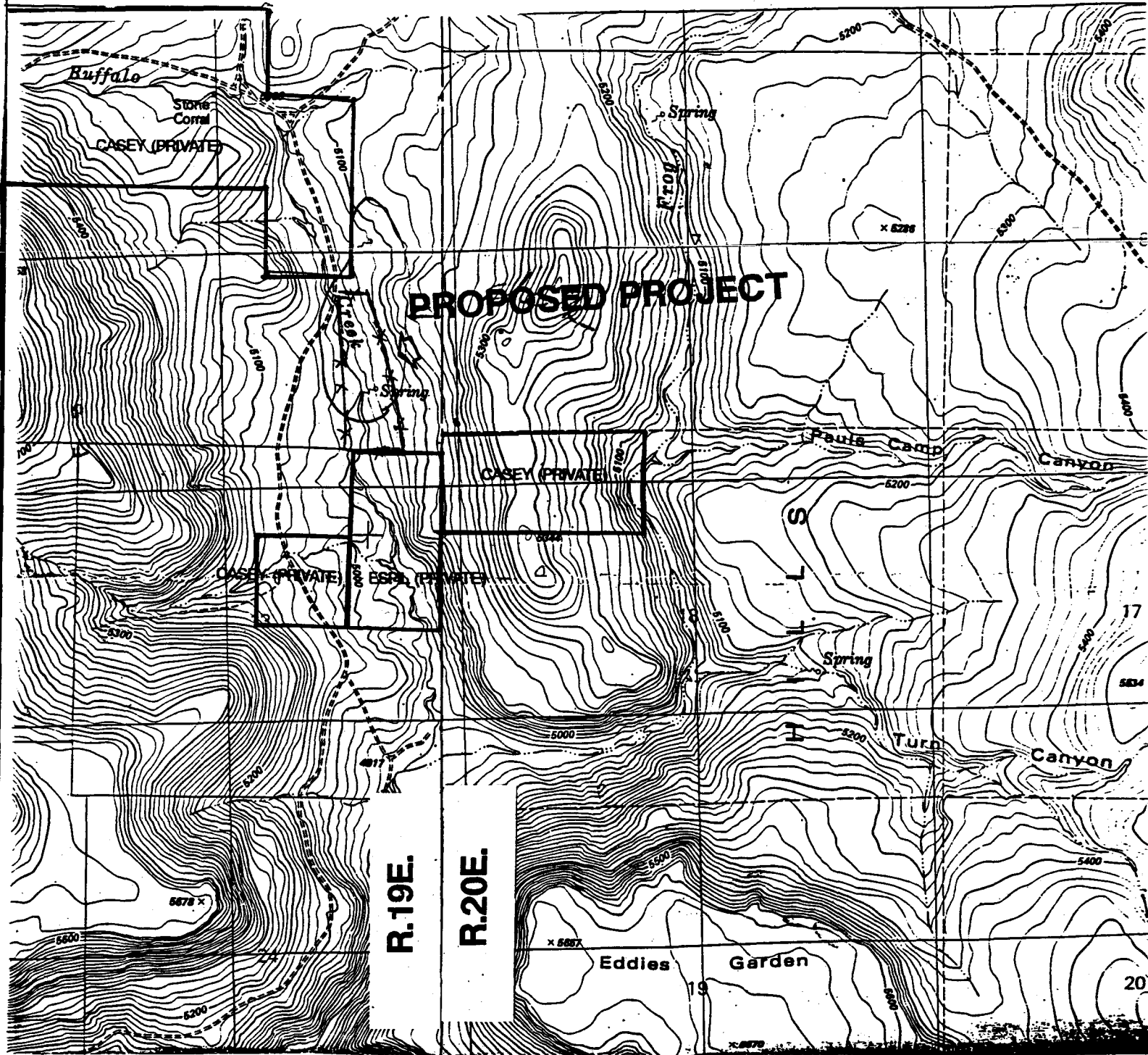
T. 33N. R. 19E. S. 30, SW 1/4

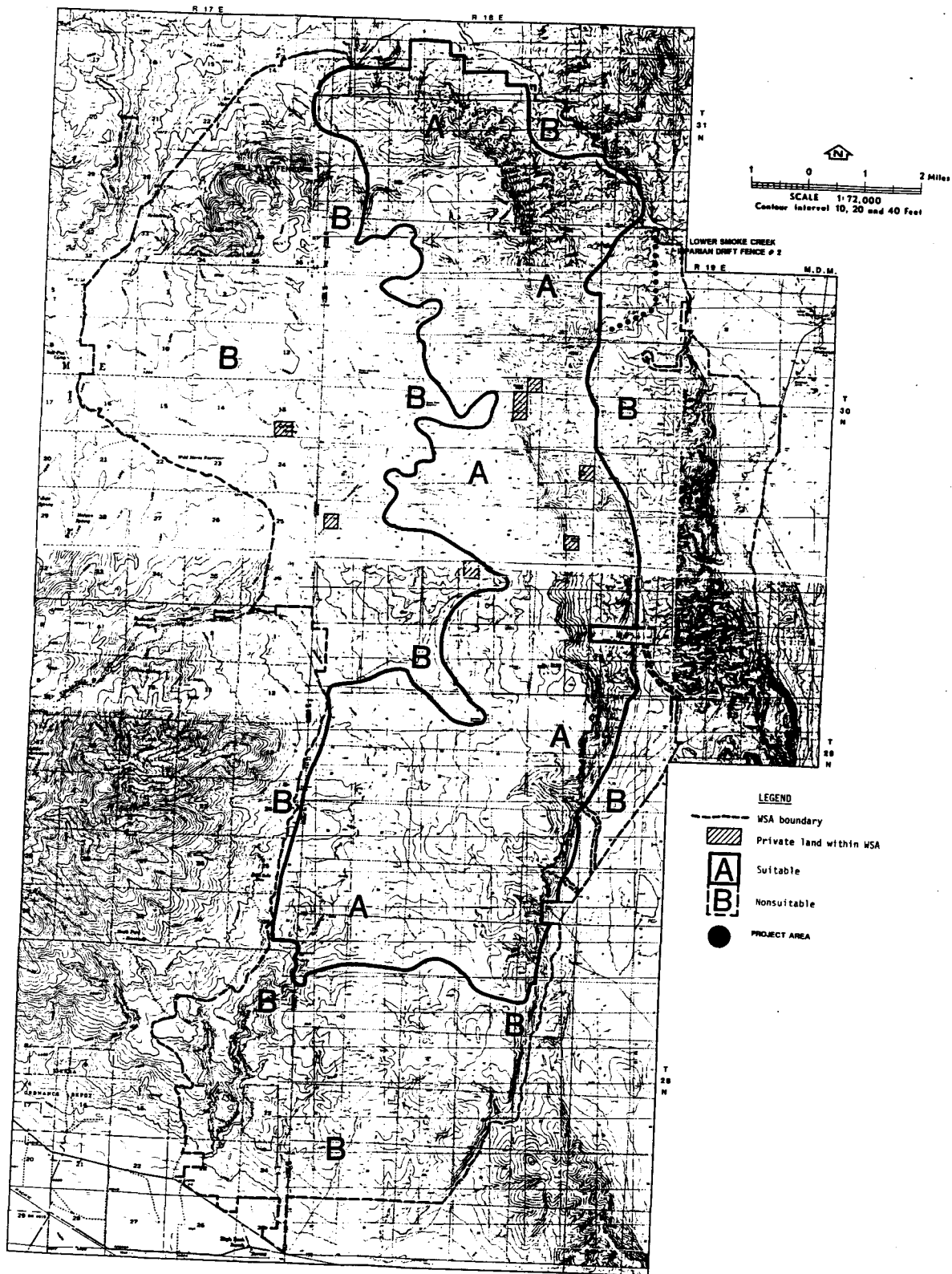
PROJECT SKETCH



STONE CORRAL RIPARIAN EXCLOSURE

T.34N. R.19E. SECTION 12



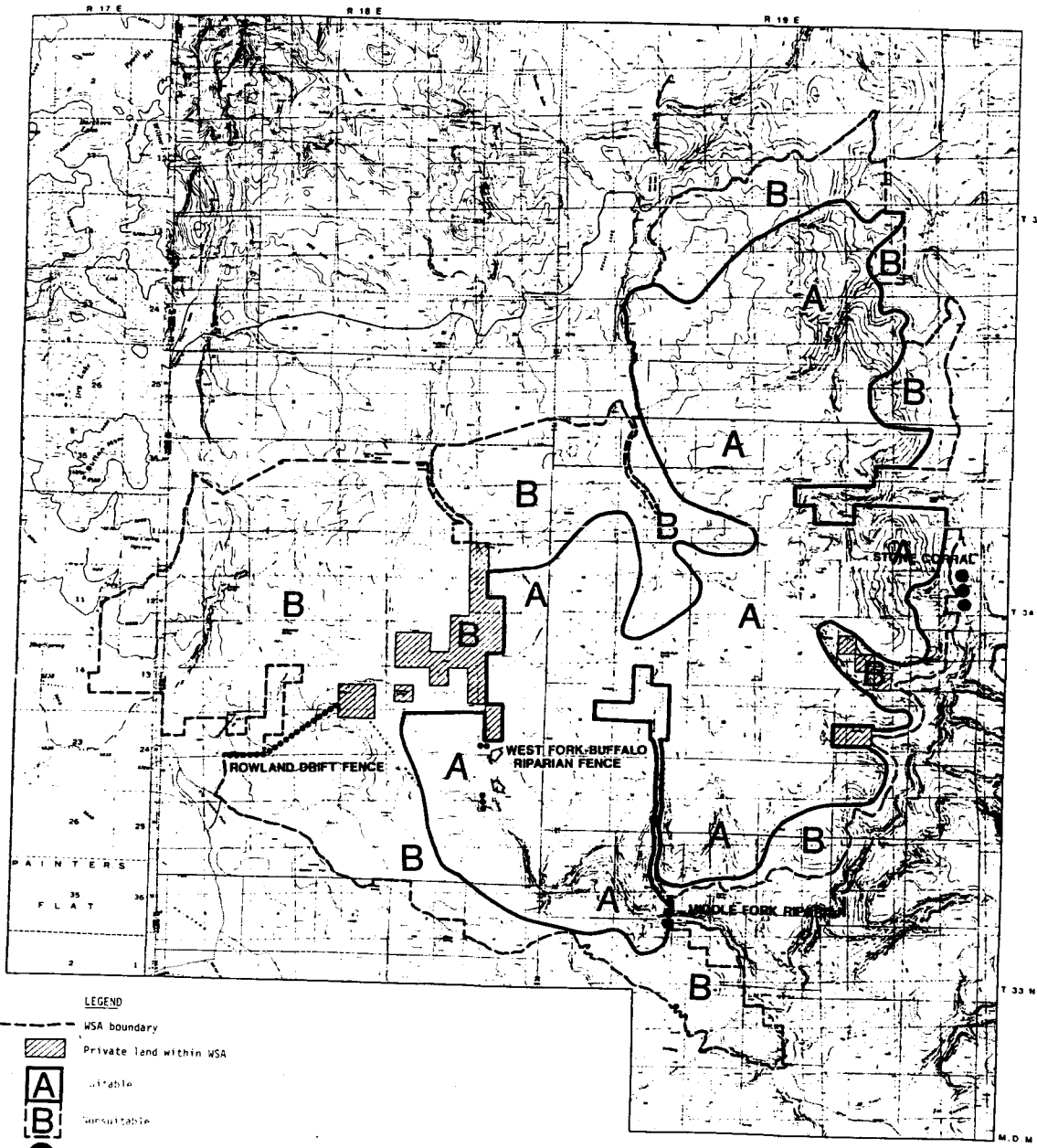


CA-020-615
 DRY VALLEY RIM
 Proposed Action/Partial Wilderness

MAP 15

**BUFFALO HILLS WSA
PROPOSED ACTION/NO WILDERNESS**

MAP 16



LEGEND

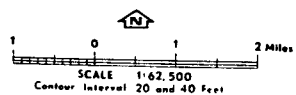
--- WSA boundary

▨ Private land within WSA

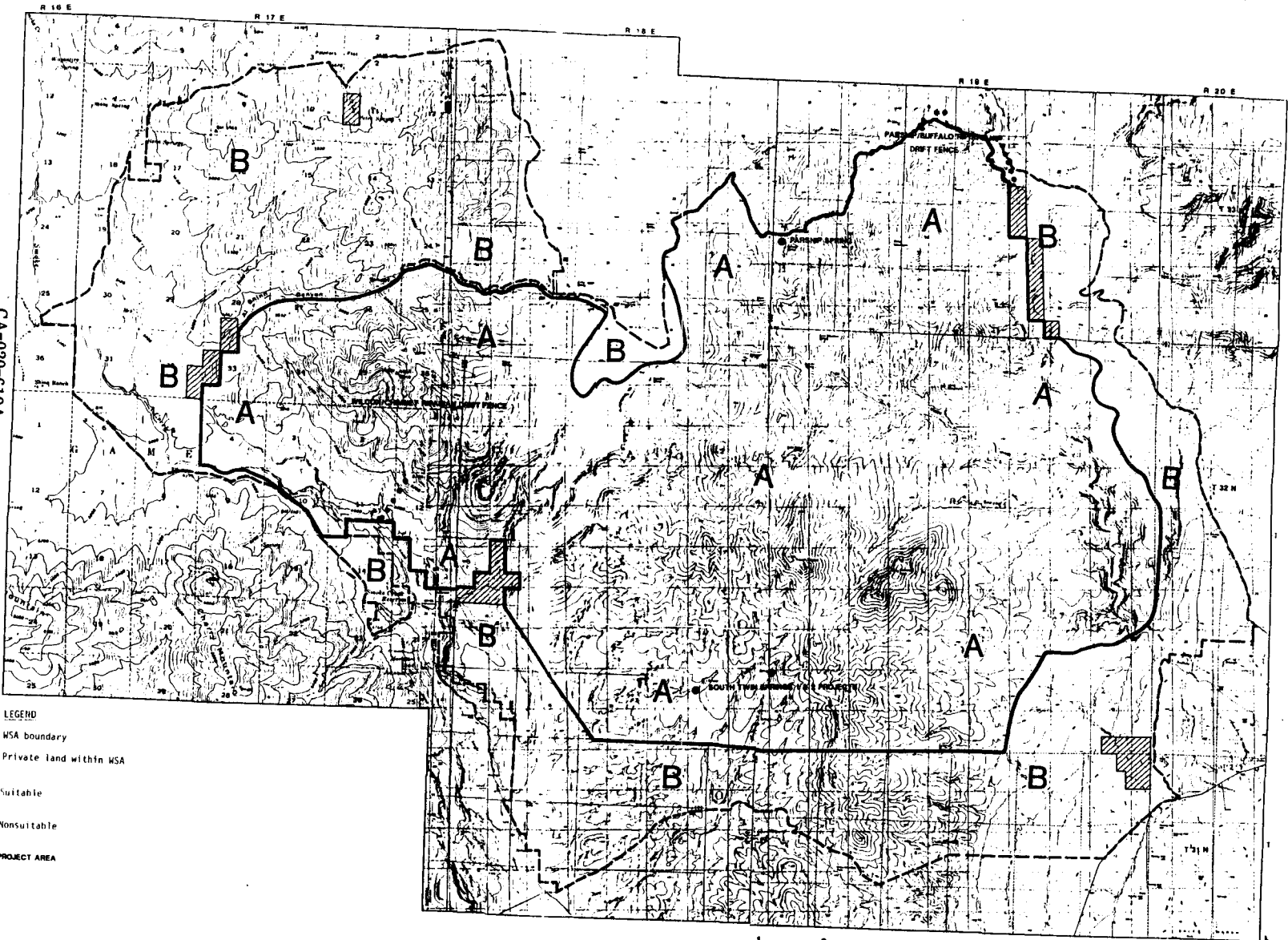
A Suitable

B Unsuitable

● PROJECT AREA

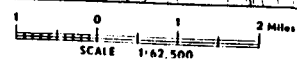


CA-020-619A
 TWIN PEAKS
 Proposed Action/Partial Wilderness
 MAP 17



- LEGEND
- WSA boundary
 - ▨ Private land within WSA
 - A Suitable
 - B Nonsuitable
 - PROJECT AREA

Alternatives



FIVE SPRINGS WSA
PROPOSED ACTION/NO WILDERNESS

MAP 18

