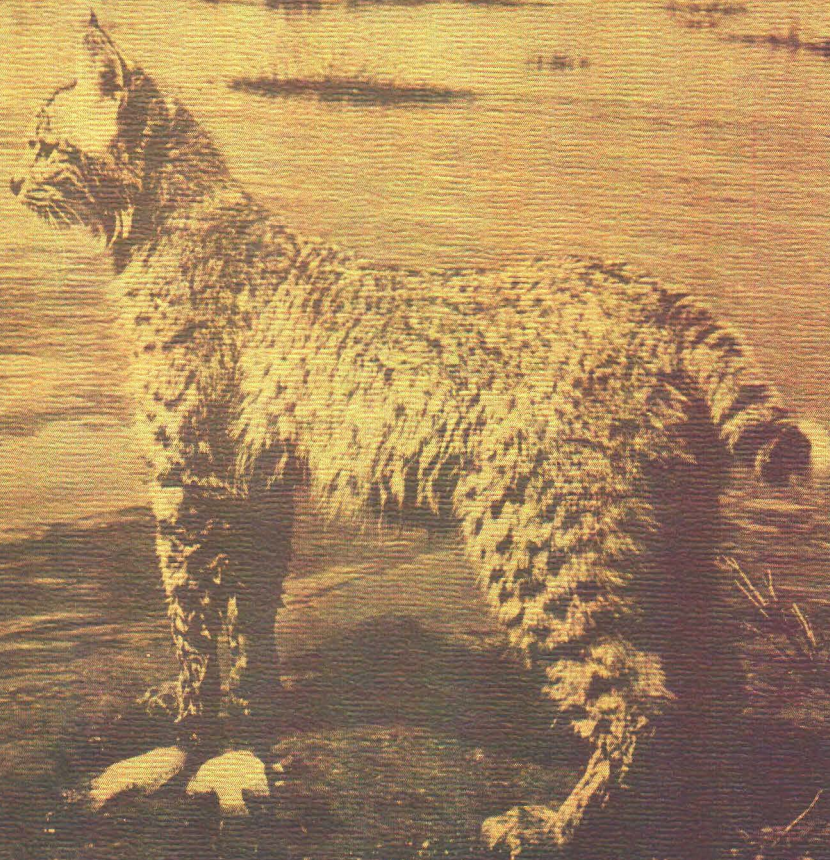


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NEVADA PROGRESS REPORT 1981



**BUREAU OF
LAND MANAGEMENT**



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Once, gold seekers rushing to California considered Nevada a geographic obstacle, and little more. Single-purpose towns rose and died as the economy dictated--a mine boom came and went, a railroad section town was eliminated.

Meanwhile the California coast, the East and the Midwest became settled. Today, Nevada lands are looked at as a place to settle and expand communities for a variety of reasons. The lands are subject to a full range of uses.


There are areas which offer great mineral wealth, valuable to our nation. There are areas which remain untouched by civilization and deserve protection for future generations as wilderness. Under the ground there is geothermal energy waiting to be tapped and petroleum for oil production. Nevada leads the nation in total acreage for geothermal non-competitive mineral leasing, and is second in the number of competitive leases for oil and gas exploration.

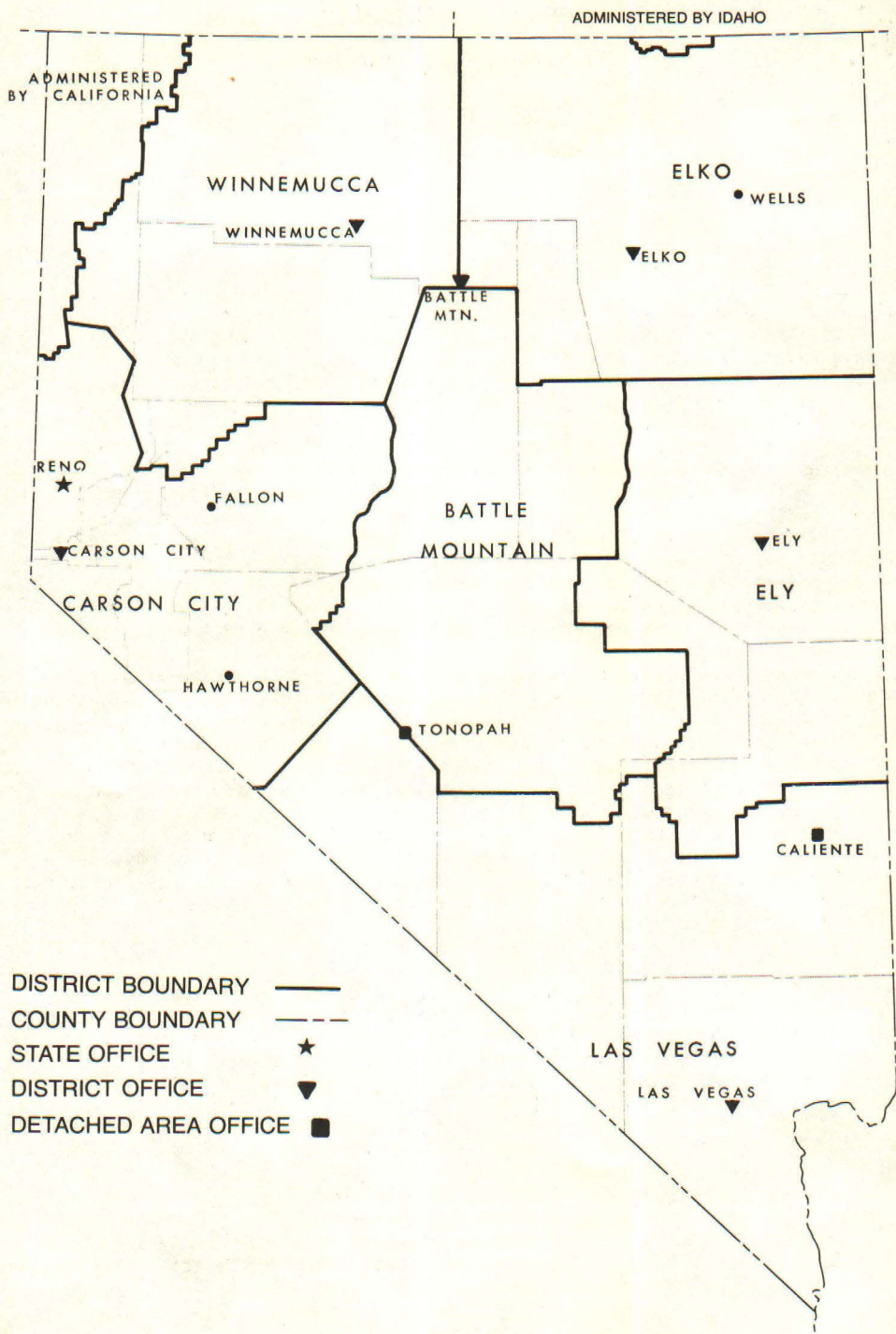
Nevada has places to hunt, fish, camp, picnic, and to enjoy wildlife and view wild horses and burros. Ranchers make a living from grazing cattle and sheep on the public lands. Needs exist for power plant sites and for utility rights-of-way as telephone and power lines reach to Nevada cities, or pass through the State. Cities, counties and state agencies need land for expansion and growth.

Because there are so many individuals, groups and companies focusing on Nevada, the management of these lands is an exciting challenge. Both national and local publics are now aware of this treasure in their backyards. Discussion of the use of these lands for national defense has made them aware of the lands, and recently the Department of the Interior's Good Neighbor Policy whereby lands for expansion have been identified by the Governor, have resulted in BLM and the State working together more often.

The public has asked for a greater role in determining what happens on these lands, and the BLM welcomes these advisors as decisions are made on land use and preservation. The BLM is, after all, a manager of the lands for all of the people, following the laws established by Congress which set out broad policies for land management.

Coordination of how the land will be managed is important to BLM. Public participation and coordinated resource management and planning are ways the BLM works with its local and national publics to carry out these legal mandates. This means working with Nevadans who depend on the land for their livelihood, and with those who enjoy recreation or who want to preserve the lands for future generations. This book describes some of the multi-faceted nature of overseeing the use of the public lands in today's society, concentrating on activities which occurred in the past fiscal year, October 1980 to October 1981.


Edward F. Spang
State Director, Nevada



UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Nevada State Office

1981 NEVADA PROGRESS REPORT

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This booklet contains information and statistics about the Bureau of Land Management in Nevada. Fiscal Year 1981 covers the 12-month period from October 1, 1980 to September 30, 1981. For reference purposes, some sections contain figures from previous fiscal years.

Since the conversion to the metric system is just now beginning and most people are still unfamiliar with the new measurements, this book, for the sake of brevity, does not include metric conversions side by side with traditional U.S. measurements. However, for those wishing to make this conversion, the following are the metric equivalents to the measurements used in this book:

1 acre = .4047 hectares 1 ton = .9072 metric tons
1 cubic yard = .7746 cubic meters 1 mile = 1.609 kilometers

Produced by Public Affairs, Nevada State Office.

Nevada BLM Organization

Nevada State Office
300 Booth Street, P.O. Box 12000
Reno, Nevada 89520

The Bureau of Land Management is responsible for the management, conservation, protection, use, and disposal of the public lands in Nevada, as well as the grazing, recreation, mineral, and other resources found on these lands throughout Nevada.

OFFICE OF THE STATE DIRECTOR

State Director	Edward Spang	784-5451
Associate State Director	Roger McCormack	784-5451
Secretary	Carol Hadley	784-5452
Equal Employment Opportunity Specialist	Marciano Briones	784-5773

PUBLIC AFFAIRS STAFF

Provides information in response to public and press inquiries and performs information and educational activities as necessary for public understanding of the Bureau's land and resource management programs.

Public Affairs Officer	Bob Stewart	784-5311
Secretary	Marie Bresch	
Public Information Specialist	Bob Goodman	
Public Information Specialist	Maxine Shane	

DIVISION OF RESOURCES

Primarily responsible for program and policy direction in: energy (oil and gas, geothermal) and nonenergy minerals; lands and realty; forestry; range management; wild horse and burros; cultural resources; wilderness; recreation; visual resources; soil, water and air; and wildlife habitat programs. A new responsibility within the Division is for land use planning and the environmental assessment programs. Fire ecology and inventory coordination matters are also handled within the organization.

Resource Management Chief	Ed Evatz	784-5455
Secretary	Joan Weber	
Chief, Biological Resources	Les Sweeney	
Allotment Management Plans	Mike Phillips	
Fisheries and Forestry	Osborne Casey	
Hydrologist	Dick Jewell	
Range Management	Gerren Long	
Soils	Jerry Harman	
Watershed	Loren Brazell	
Wild Horses and Burros	Milt Frei	
Wildlife	Dave Goicoechea	
Chief, Lands, Minerals and Recreation	Bob Foster	784-5748
Archaeology	Richard Hanes	
Geothermal, Oil and Gas	Norm Melvin	
Lands and Realty	Mike Moran	
Minerals	Larry Steward	
Recreation	Steve Smith	
Wilderness	Dave Harmon	

Chief, Planning and Environment	Stuart Gearhart	784-5448
Secretary	Helen Doeding	
Regional Planner	Jack Seley	
Regional Economist	Paul Myers	
Sociologist	Bert Bresch	
Environmental Coordinators	Ed Tilzey, John Matthiessen, Mike Jackson	784-5602

DIVISION OF OPERATIONS

Provides technical support as well as develops and advises programs in engineering design and construction; cartography; cadastral survey; electronic communications; fire control; trespass; improvement maintenance; access, land and mineral appraisal; lands and minerals operations; and mineral examination activities.

Operations Chief	Bill Malencik	784-5281
Secretary	Teena Fredianelli	784-5282
Chief, Appraisal Branch	Charles Hancock	784-5474
Chief, Cadastral Survey	Lacel Bland	784-5278
Chief, Engineering	John Trimmer	784-5275
Civil Engineer	John Sorenson	784-5275
Supervisor, Cartography	Dennis Anderson	784-5731
Chief, Lands & Minerals	Dick Morrison	784-5703
Lands Transactions	Ken Stowers	784-5703
Minerals Transactions	Jody Woodin	784-5703
Accounts	Elaine Long	784-5432
Mining Claims	Pam Reynolds	784-5751
Dockets	Maxine Bean	784-5445
Public Contact	Virginia McCold	784-5432
Titles and Records	Jack Lewis	784-5487
Chief, Law Enforcement	Len Sims	784-5683
Chief, Fire Management	Roy Percival	784-5885

DIVISION OF ADMINISTRATION

Provides administrative and non-technical support for personnel, incentive awards, budget analysis, procurement, property management, organizational planning, management systems, training, office services, information services, central records and equal opportunity employment.

Administration Chief	Mel Bunch	784-5491
Secretary	Sally Morrin	784-5491
Program Analyst	Fred Weech	784-5491
Chief, Administrative Services	Cas Martinez	784-5491
Procurement	Bonnie Johnson	784-5494
Library	Patsy McDuffie	784-5485
Reproduction	Cal Robinson	784-5746
Chief, Personnel Management	Del Estey	784-5881
Training	John Chappell	784-5881

BLM DISTRICT OFFICES

Elko District Office
P.O. Box 831, 2002 Idaho Street
Elko, Nevada 89801

738-4071

District Manager
Elko Resource Area Manager
Wells Resource Area Manager
Chief, Division of Resources
Planning and Environmental
Coordination
Chief, Division of Operations
Chief, Division of Administration

Rod Harris
Jesse Dingman
Charles Boyer
Merle Good

Bob Woerner
Edward Zontek
Don Lemons

Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

623-3676

District Manager
Paradise-Denio Resource Area
Manager
Sonoma-Gerlach Resource Area
Manager
Chief, Division of Resources
Chief, Division of Planning and
Environmental Coordination
Chief, Division of Operations
Chief, Division of Administration

Frank Shields

David Griggs

Brad Hines
Glenn Stickley

Bob Neary
Bob Carroll
Jeannette Ugaldea

Carson City District Office
Suite 335, Capitol Plaza
1050 East William Street
Carson City, Nevada 89701

882-1631

District Manager
Associate District Manager
Lahontan Resource Area Manager
Walker Resource Area Manager
Division of Wild Horse and
Burro Operations
Chief, Division of Resources
Chief, Division of Planning and
Environmental Coordination
Chief, Division of Operations
Chief, Division of Administration

Tom Owen
Jim Elliott
Ken Walker
Rudy Reimold

Don Pomi
Roy Jackson

Kelly Madigan
Norm Murray
John Lukasko

Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

289-4865

District Manager, Acting
Egan Resource Area Manager
Schell Resource Area Manager
Chief, Division of Resources,
Acting
Chief, Division of Planning and
Environmental Coordination
Chief, Division of Operations
Chief, Division of Administration

George Cropper
Howard Hedrick
Wayne Lowman

Mark Barber

Larry Jung
Duncan MacDonald
J.D. White

Las Vegas District Office
4765 W. Vegas Drive
P.O. Box 26569
Las Vegas, Nevada 89126

Detached Area Office
Caliente Resource Area
P.O. Box 237
Caliente, Nevada 89008

District Manager
Assistant District Manager
Stateline-Esmeralda Resource Area
Manager
Caliente-Virgin Valley Resource
Area Manager
Chief, Division of Resources,
Acting
Chief, Division of Planning and
Environmental Coordination
Chief, Division of Operations
Chief, Division of Administration

Kemp Conn
William Calkins
Bill Civish
Darwin Anderson
Jim Dunn
Ed Ciliberti
Jim Schalus
George Graphenreed

726-3141

Battle Mountain District Office
2nd and Scott Streets
P.O. Box 194
Battle Mountain, Nevada 89820

Detached Area Office
Tonopah Resource Area
P.O. Box 911
Tonopah, Nevada 89049

District Manager
Shoshone-Eureka Resource Area
Manager
Tonopah Resource Area Manager
Chief, Division of Resources
Planning Coordinator
Chief, Division of Operations
Chief, Division of Administration

H. James Fox
Neil Talbot
Les Monroe
Mike Mitchel
Russ Koch
John Keenan
Thomas Jury

635-5181

482-6214

Federally Administered Lands in Nevada, by Agency as of September 30, 1979

Including Alaska and Hawaii, the gross area of the United States is 2.3 billion acres. The Federal government has, at various times in U.S. history, held title to about four-fifths of that area. Today, Federal civil and defense agencies administer about 738 million acres or about one-third of the nation's lands.

Currently, Alaska has the highest percentage of Federally administered lands - 89 percent. Second largest percentage is Nevada with about 87 percent. These lands are used for a variety of purposes. In Nevada, these include atomic testing, national forests, wildlife refuges, and public lands, administered primarily for multiple uses. The agencies and their acreage of responsibility are outlined below.

AGENCY	ACRES	PERCENTAGE OF STATE ADMINISTERED
Department of Agriculture		
Forest Service	5,143,891.0	
Soil Conservation Service	.2	
Department Subtotal	<u>5,143,891.2</u>	7.27
Department of Energy		
Energy Research and Development Administration	819,581.8	
Western Area Power Admin.	4,407.2	
Department Subtotal	<u>823,989.0</u>	1.16
Department of the Interior		
Fish & Wildlife Service	2,202,296.4	
Geological Survey	70.8	
Bureau of Indian Affairs	7,810.8	
Bureau of Land Management	48,844,808.3	
Bureau of Mines	22.6	
National Park Service	264,137.9	
Bureau of Reclamation	915,273.2	
Department Subtotal	<u>52,234,420.0</u>	73.83
Department of Transportation		
Federal Aviation Administration	1,863.6	*
Department of Defense		
Air Force	2,896,757.0	
Army	155,266.0	
Navy	63,653.7	
Corps of Engineers	671.0	
Department Subtotal	<u>3,116,347.7</u>	4.41
Other Federal Agencies		
General Services Administration	13.2	*
Health Services Administration	.2	*
United States Postal Service	24.7	*
Veterans Administration	12.5	*
Other Agencies Subtotal	<u>50.6</u>	
TOTALS	61,320,562.1	86.68

*Less than one percent.

NOTE: These figures are the most recent for all Federal agencies as compiled by the General Services Administration. Current BLM figures are shown on the opposite page.

Public Lands in Nevada, by County as of September 30, 1981

COUNTY	PUBLIC LANDS MANAGED BY BLM*	TOTAL ACREAGE IN COUNTY	PERCENTAGE OF TOTAL ACRES MANAGED BY BLM
Carson City	42,432	97,920	43.3
Churchill	2,295,045	3,144,320	73.0
Clark	3,188,751	5,173,760	61.6
Douglas	179,116	480,640	37.3
Elko	6,785,966	10,995,840	61.7
Esmeralda	2,210,756	2,284,800	96.8
Eureka	2,021,846	2,676,480	75.5
Humboldt	4,322,074	6,210,560	69.6
Lander	3,014,258	3,597,440	83.8
Lincoln	5,749,866	6,816,000	84.3
Lyon	712,292	1,295,360	55.0
Mineral	1,693,033	2,455,680	68.9
Nye	6,704,251	11,560,960	58.0
Pershing	2,910,424	3,859,840	75.4
Storey	12,528	167,680	7.5
Washoe	2,643,084	4,229,120	62.5
White Pine	4,364,381	5,699,200	76.6
TOTALS	48,850,103	70,745,600	69.1

*Increases in public land acreage are due to recalculations and better data, not acquisitions. Decreases are due to recalculations and land transfers.

by BLM District

DISTRICT	TOTAL ACRES MANAGED BY BLM
Elko	7,387,692
Winnemucca	8,252,960
Carson City	5,323,491*
Ely	8,007,779
Las Vegas	10,006,712
Battle Mountain	8,401,725
Susanville	1,452,241**
Boise	58,082***
TOTAL	48,890,682

*Includes 40,579 acres managed by Carson City District in California.

**Land in Washoe and Humboldt Counties administered by the Susanville, California BLM District.

***Land in Elko County administered by the Boise, Idaho BLM District.

Fiscal Management

Like any other large management operation, the BLM in Nevada is responsible for collecting and paying out sizeable amounts of money. The Bureau collects money from many sources utilizing the public lands and deposits these monies in the U.S Treasury. It also pays out money appropriated by Congress for managing the lands and handles two special types of payments involving these lands.

One special payment, authorized by various federal laws, is to the State of Nevada for its share of certain receipts collected by BLM. The State receives 50 percent of all mineral leasing revenues, 12 1/2 to 50 percent of grazing revenues (the percentage depends upon the category of lands being grazed), and four percent of all revenues from sale of lands and materials.

The second special payment, authorized by a 1976 federal law, is made directly to Nevada's counties in lieu of property taxes. The purpose of the payments is to compensate the counties for the burden resulting from the tax immunity of the public lands. This "in lieu" payment is based upon a complex formula taking into account the amount of certain federal lands within the county borders, the county population, and certain federal payments made to that county.

FISCAL OVERVIEW FY 81

Total Public Land Receipts Collected by BLM	\$27,126,328	Total Funds Paid out by BLM from the U.S. Treasury Relating to Public Land Management in Nevada	
		Direct Cost Expenditures	\$22,287,813
		Payments to State of Nevada	10,916,935
		Payments in Lieu of Taxes	5,525,704
		TOTAL	\$38,730,452

RECEIPTS

Mineral Leases and Permits	
Oil and Gas	18,815,088
Geothermal	1,764,047
All Others	37,597
Sale of Lands and Materials	
Land	881,699
Materials	16,954
Timber	63,434
All Others	213,368
Grazing	
Section 3*	4,282,271
Section 15**	86,834
Fees and Commissions	773,409
Rights-of-Way	135,540
Rents of Land	49,082
All Others	7,005
TOTAL	\$27,126,328

*Section 3 refers to grazing within grazing districts.

**Section 15 refers to grazing outside established grazing districts.

DIRECT COST EXPENDITURES

CONSTRUCTION AND MAINTENANCE

Range, Wildlife Habitat, Soil and Water Improvements (\$639,000 of this amount is directly from grazing fees)	\$ 1,084,000
Maintenance of Range, Wildlife Habitat, Soil and Water Improvements (\$366,000 is directly from grazing fees)	512,500
Recreation and Other Facility Construction	803,500
Road Construction and Easement Acquisition	24,500
Maintenance of Roads and Facilities	621,500

RESOURCE PROTECTION

Fire Prevention	1,672,000
Fire Suppression	2,338,000

MANAGEMENT

Lands and Realty	1,433,000
Energy Minerals	
Oil and Gas	312,000
Geothermal	223,500
Other	9,500
Non-Energy Minerals	1,127,000
Forest Management	224,000
Grazing Management	3,512,500
Wild Horse and Burro Management	1,366,000
Cultural Management	230,000
Wilderness Management	425,000
Recreation and Visual Resource Management	730,500
Soil, Air, and Water Management	2,797,500
Wildlife Habitat Management	936,000
Fire Management	479,000
Planning for Multiple Use	862,000
Law Enforcement	32,500

CONTRIBUTIONS AND REIMBURSABLES

581,813

TOTAL

\$22,287,813

PAYMENT TO STATE OF NEVADA

SOURCE	AMOUNT
Mineral Leases	\$10,291,216
Sale of Lands and Materials	47,018
Grazing	
Section 3	535,284
Section 15	43,417

TOTAL

\$10,916,935

PAYMENT IN LIEU OF TAXES

COUNTY	PAYMENT	COUNTY	PAYMENT	COUNTY	PAYMENT
Carson City	\$ 38,101	Esmeralda	38,850	Mineral	272,360
Churchill	434,000	Eureka	59,900	Nye	342,312
Clark	999,056	Humboldt	342,000	Pershing	170,400
Douglas	183,460	Lander	204,100	Storey	9,443
Elko	493,000	Lincoln	186,600	Washoe	994,897
		Lyon	429,225	White Pine	328,000
		TOTAL			\$5,525,704

BLM Employment

Permanent employment for BLM in Nevada increased by approximately 10 percent over fiscal year 1980. This included employment in both permanent full-time and When Actually Employed (WAE)* positions.

Six new positions were added to the BLM's permanent full-time positions during this time for the Saval ranch project, soil, water and air; wild horse and burro; cadastral survey and wildlife programs. During most of the fiscal year, the Bureau was involved in a hiring freeze imposed by the Reagan Administration early in the calendar year. While BLM could still hire into its WAE work force, permanent positions were filled by exception only. A number of conversions from the WAE work force were made to full-time permanent positions in order to maintain a stable work force. Some of the six new positions were used for that purpose.

BLM NEVADA EMPLOYMENT FY 81

Office	Permanent	WAE*	Part-Time	Temporary	Totals
State Office	96	67	11	20	194
Elko	30	39	0	26	95
Winnemucca	34	24	1	12	71
Carson City	38	59	0	36	133
Ely	32	25	1	8	66
Las Vegas	43	50	0	43	136
Battle Mountain	<u>28</u>	<u>41</u>	<u>0</u>	<u>13</u>	<u>82</u>
TOTALS	301	305	13	158	777

*When Actually Employed, less than full-time.



BLM summer employees assist in restoring a Tonopah gravesite.

Land Use Planning

Land use planning is the backbone of every resource management program within the Bureau of Land Management. Because the Bureau is responsible for managing a variety of resources in a large area of Nevada, a multiple use planning system is critical in providing the proper balance between the effective use and necessary protection of these resources.

Most public lands in Nevada are already covered by a land use plan. Many of these plans, however, date back to the early 1970s and changes have occurred which demand revisions. To be effective, land use plans must be updated to reflect changing public needs, resource conditions, or new national laws or policies. The Bureau's planning system has evolved over the present decade to reflect these changes.

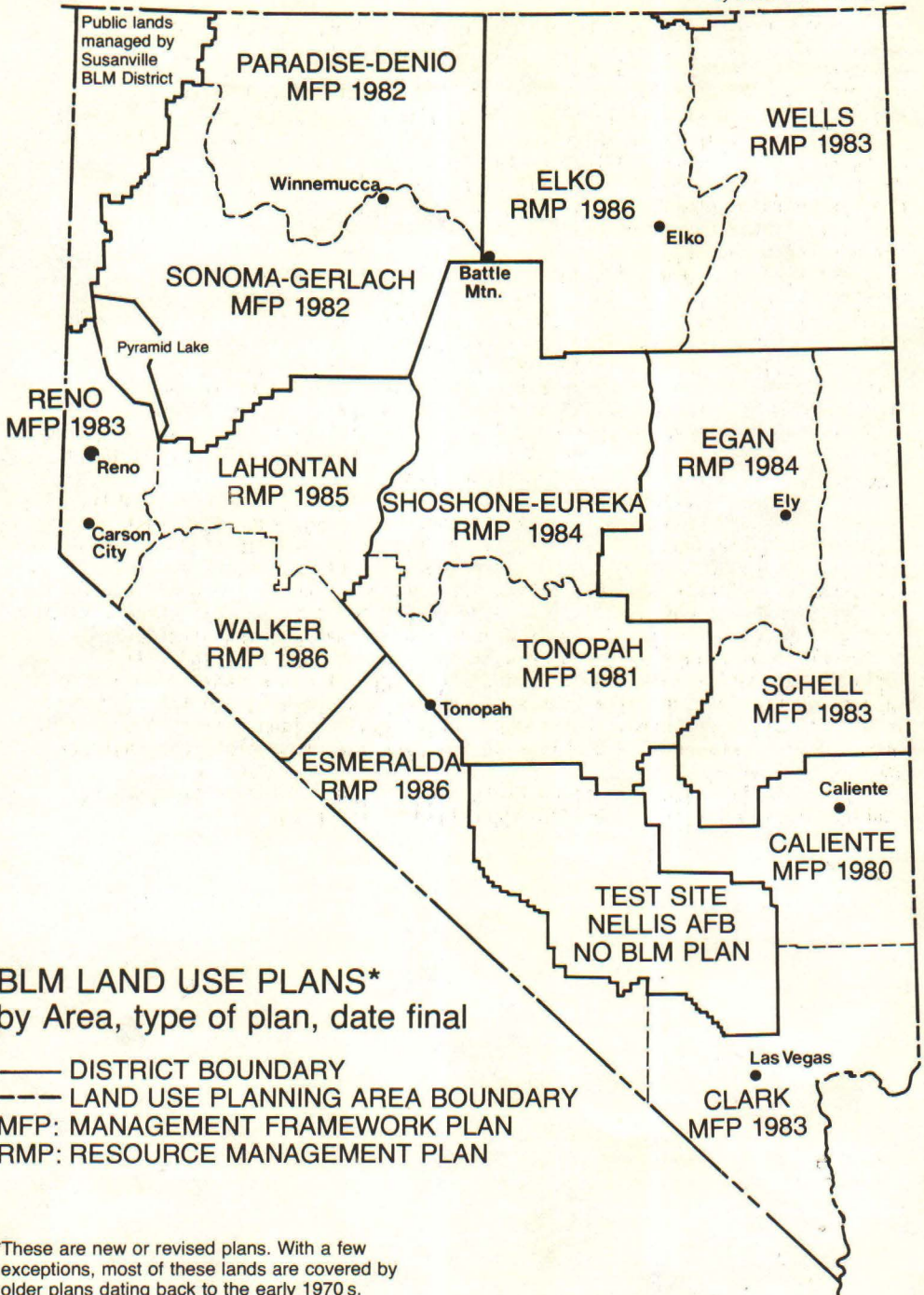
New plans are now being implemented in Nevada under two formats, the Management Framework Plan (MFP) and the Resource Management Plan (RMP). All plans started after October 1, 1980, incorporate the features of the new RMP method which concentrates on more effective public participation.

The Wells Resource Area in Elko County has been designated as part of a pilot program for the new RMP system. It, along with the Egan, Shoshone-Eureka, and Lahontan Resource Areas, is in the early phases of the RMP process. The Caliente Resource Area MFP was completed in Fiscal Year 1980. Other planning area MFPs are proceeding as scheduled. The Land Use Plan Map shows planning area boundaries and estimated completion dates.

Public laws, national policy, land characteristics, resource capabilities, and the needs and desires of the public must all be considered in multiple use planning. Public land resource users, environmental organizations, special interest groups, businesses, other governmental entities, state and local agencies, and affected Indian tribes, are all consulted at the onset and during the development of the plans. This development requires several steps including data gathering, identifying issues or conflicts, and weighing alternatives. Different combinations of resource uses are proposed and analyzed. If applicable, special facets such as grazing allotment management and wilderness management receive special attention. Once the analysis is complete and all viewpoints are considered, BLM managers must make the land use decisions. The land use plan sets out the combination and patterns of multiple use that are best for the area.

When the land use plan is complete, the Bureau and interested publics continue to coordinate in the implementation of the plan.

Public lands managed
by Boise BLM District



Environmental Coordination

Environmental impact statements (EISs) and environmental assessments (EAs) are prepared by the BLM when an activity or project is proposed on the public lands that could affect the quality of the human environment. Possible impacts that could result from allowing the activity are identified and analyzed and measures to lessen or mitigate the adverse impacts are considered. Public involvement stretches from the initial determination of the scope of the project to that of commenting on the document and its conclusions before final publication.

Once complete, the EIS or EA serves as an important guide to the land manager in making the final decision on the action or project. The environmental process ensures that informed decisions are made with full knowledge of the implications and management options available.

The difference between EISs and EAs is basically one of degree. Major actions require an EIS while actions less far-reaching and significant require an EA.

ENVIRONMENTAL IMPACT STATEMENTS (EISs)

Nevada EISs in 1981 encompassed BLM programs such as rangeland management and non-BLM projects such as coal-fired power plants. Grazing EISs completed were the Paradise-Denio and Sonoma-Gerlach EISs, both in the Winnemucca District. Grazing EISs initiated are Schell (Ely), Reno (Carson City), and Clark (Las Vegas)--all scheduled to be completed by September 1982. These EISs assess the impacts to the environment of various levels of livestock grazing on public lands.

Public lands are being considered by Sierra Pacific Power Company and White Pine County for possible coal-fired power plants. Siting studies and EISs have commenced for the Thousand Springs Project, northeast of Wells, Nevada, and the White Pine Power Project in White Pine County. Private environmental firms have been obtained to prepare the necessary EISs in close consultation with BLM.

ENVIRONMENTAL ASSESSMENTS (EAs)

Much of the BLM's environmental program revolves around EAs. In order to meet increasing responsibilities, the BLM in Nevada has adopted the use of categorical exclusions approved by the Department of the Interior, as well as other innovations to expedite actions while retaining the integrity of the environmental program. Categorical exclusions refer to certain categories of actions which do not normally cause significant impacts and, thus, are excluded from detailed environmental analyses.

In addition, the BLM in Nevada has been more responsive in processing many different types of actions by employing abbreviated EAs that utilize mitigating measures as part of the proposed action. The abbreviated EAs have less detailed analysis, yet contribute to informed decision making. This has resulted in greatly increased efficiency. Other efforts at increasing efficiency are aimed at utilizing tiering or building upon existing documents which already adequately analyze environmental effects.

The six district offices in Nevada prepared approximately 400 EAs during fiscal year 1981. Most of these centered around routine actions such as range improvements, minor rights-of-way, material sales, etc. Other more significant actions that were assessed this past year included Desert Land Entry applications, control programs of major insect infestations and minor powerline constructions.

Cadastral Surveys

Cadastral surveys, the official government surveys of public lands, are conducted by the Cadastral Survey Branch in each BLM state office. These surveys are fundamental to the proper development and effective administration of the public lands. In Nevada, this program was initiated in 1861.

About 29 million acres surveyed prior to 1910 are in need of resurvey because of little remaining evidence of the original corner monuments placed at that time. About 19 million acres are unsurveyed.

Immediate goals of the program are to accomplish surveys necessary to provide descriptions for land disposals including desert land entries, sales, exchanges, and mineral patents, and to define the boundaries of public lands in areas of intermingled public and private ownership patterns so the public lands can be properly managed.

During fiscal year 1981, four BLM survey crews surveyed section lines enclosing 267,826 acres of BLM and Forest Service lands. A summary of other survey statistics is outlined below:

SURVEY STATUS

ITEM	FY 80	FY 81
Acres surveyed	11,545	
Forest Service		1,617
BLM		52,662
Acres resurveyed	315,959	
Forest Service		26,608
BLM		186,939
Acres unsurveyed	18,771,725	18,771,725
Minerals surveyed	3*	10**
Plats accepted	52	15
Acres surveyed to present	51,512,105***	51,566,384***

*Approved FY 1980, three mineral surveys consisting of 54 claims.

**Approved FY 1981, 10 mineral surveys consisting of 41 lode claims, 5 placers and 12 millsites.

***Total includes all rectangular surveys in Nevada, including public, state, and private lands.



Cadastral surveys describe lands and define boundaries.

Lands and Realty Management

The lands and realty program involves three major activities: land transfers, land leases, and rights-of-way. The backbone of this effort is a sophisticated records system for keeping track of these activities on millions of acres of public lands in Nevada.

There are various federal laws which allow the transfer of public land into private ownership. Some lands are transferred for specific purposes, such as mineral development, desert land farming, and Indian allotments. Some are given free to local governments for recreation or other public purposes. Other lands are traded or exchanged for private land. Each year public lands also are sold to the highest bidder at auction. Selection of most of these lands is made through the Bureau's land use planning system. With the public's help, decisions are made about which lands can best benefit the public by staying in public ownership and which lands are more suitable for private use and development.

Highlights of lands transfers in fiscal year 1981 include issuance of a patent to the City of Winnemucca, at no cost, for airport use. Also, patents were issued pursuant to the Unintentional Trespass Act. All of the lands in Nevada subject to this law have now been patented.

Another active disposal program is made possible by the Recreation and Public Purposes Act. Through this law, local governments are able to obtain by lease or purchase public land free for uses such as schools and community projects. In fiscal year 1981, land was provided to Humboldt County for use as a cemetery. Prior to this, Paradise Valley burials were at the Winnemucca cemetery. Also, 80 acres were patented to Lincoln County, on behalf of the town of Alamo, for use as a rodeo ground, and 20 acres were patented to Clark County for school sites.

Leases are also authorized by various federal laws. These allow use of the public land for a certain period of time and sometimes include an option to buy the property through the disposal laws.

Rights-of-way involve both energy-related and non-energy related projects. Energy rights-of-way typically issued in Nevada include power transmission lines. Non-energy rights-of-way include grants to developers to build new access roads across public lands and to expand streets in urban areas. Water pipelines, communications sites, and material site rights-of-way are other examples.

LAND PATENTS ISSUED FY 1981

KIND	NO.	ACRES
Mineral	2	180
Unintentional Trespass	2	105
Public Sale	25	190
Recreation and Public Purposes	5	125
Exchange	5	10,679
Indian Allotment	1	10
Airport	1	858
Other	3	384
TOTALS	44	12,531

LAND LEASES IN EFFECT SEPTEMBER 30, 1981

KIND	NO.	ACRES
Recreation and Public Purposes	124	8,739
Mining Claim Occupancy	1	3
Airport	35	14,670
Small Tract	3	15
TOTALS	<u>163</u>	<u>23,427</u>



This Washoe County fire station site was obtained through the Recreation and Public Purposes Act.

RIGHTS-OF-WAY IN EFFECT SEPTEMBER 30, 1981

KIND	NO.
Communication Sites	290
Electrical Transmission	694
Federal Highway	97
Highway, Tram, Access Road	157
Material Site	351
Pipeline - Oil and Gas	39
Pipeline - Water	195
Railroad	70
Telephone - Telegraph	348
Water Reservoir or Ditch	20
TOTAL	<u>2,261</u>

OIL AND GAS LEASES BY COUNTY FY 81

COUNTY	NUMBER OF LEASES		LEASED ACREAGE	
	Competitive	Non-Competitive	Competitive	Non-Competitive
Churchill		436		913,339
Clark		1,328		2,485,128
Elko		1,583		3,496,384
Esmeralda		10		10,063
Eureka		642		1,136,547
Humboldt		164		632,871
Lander		268		537,041
Lincoln		1,601		3,793,886
Lyon		7		12,353
Mineral		13		16,391
Nye	2	2,146	400	2,564,978
Pershing		120		286,127
Washoe		1		1,155
White Pine	—	<u>1,775</u>	—	<u>1,444,761</u>
TOTALS	2	10,094	400	17,331,024

FREE USE MATERIAL TO STATE AND LOCAL GOVERNMENTS

MINERAL	NO. OF PERMITS	AMOUNT OF MATERIAL
Sand and Gravel	29	622,560 cubic yards
Common Borrow	18	124,695 cubic yards
Decomposed Granite	19	109,900 cubic yards
Rip Rap	1	600 tons

MINERAL MATERIAL SALES FY 81

MINERAL	AMOUNT SOLD	VALUE
Sand and Gravel	848,673 cubic yards	\$128,363
Common Clay	155,000 cubic yards	12,800
Common Borrow	83,960 cubic yards	8,400
Decomposed Granite	39,941 cubic yards	11,980
Top Soil	12,653 cubic yards	2,501
Traprock	50,000 tons	5,000
Building Stone	459 tons	822
	TOTAL VALUE	<u>\$169,866</u>

Geothermal Energy

After almost a decade of exploration, the first commercial uses of geothermal energy in Nevada are showing great promise. A dehydration plant at Brady Hot Springs and a pilot alcohol production unit at Wabuska (both on privately owned land) are encouraging commercial applications. Other alcohol production proposals are being developed for Brady Hot Springs and Crescent Valley areas. Sierra Pacific Power Co. and its partners have ordered a 10-megawatt test unit to evaluate the potential of the Steamboat Springs, Dixie Valley, and the Beowawe Known Geothermal Resource Areas for electricity generation. A target date of 1982 or 1983 has been set for engineering tests on the project.

Geothermal leasing and exploration remained brisk on Nevada's public lands in fiscal year 1981 and Nevada BLM continued to lead all other western states in number of leases issued, amounting to 45 percent of the national total.

The BLM issues two types of leases on public lands for geothermal exploration and development: non-competitive and competitive. Non-competitive leases are issued on a first-come, first-served basis for a yearly rental fee and royalties on any energy produced. Competitive leases are issued in promising areas, called Known Geothermal Resource Areas. These leases are issued by competitive auction through bonus bids. The successful lessee pays rental fees and royalties.

GEOHERMAL LEASES ISSUED FY 81

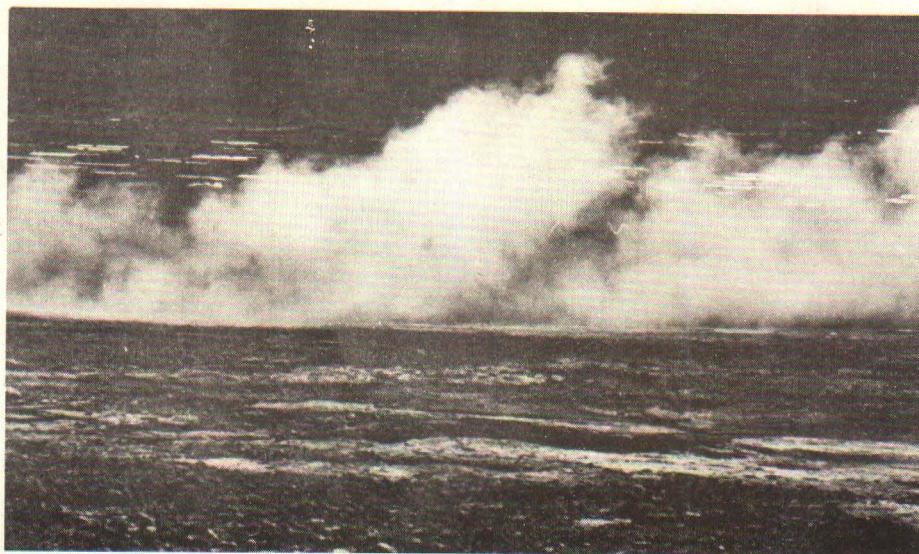
TYPE	NUMBER OF LEASES	ACREAGE
Non-competitive	112	203,663
Competitive	2	4,555
TOTALS	<u>114</u>	<u>208,218</u>

GEOHERMAL DRILLING ACTIVITY IN NEVADA FY 81 (on both public and private land)

Number of Holes Drilled: 11 Cumulative Footage: 76,814 feet

COMPETITIVE GEOHERMAL LEASE SALES FY 81

KNOWN GEOHERMAL RESOURCE AREA SALES	NO. OF LEASES	ACREAGE LEASED	AMOUNT OF BONUS BID
Brady-Hazen (Reoffer)	3	7,585	\$ 7,585
Dixie Valley (Reoffer)	3	6,400	45,690
Elko Hot Springs (Reoffer)	2	1,320	6,600
Monte Neva		No bids received	
Salt Wells Basin		No bids received	
Wabuska		No bids received	
TOTALS	<u>8</u>	<u>15,305</u>	<u>\$59,875</u>



Nevada BLM leads all western states in geothermal leasing.

GEOTHERMAL LEASES IN EFFECT BY COUNTY
FY 81

COUNTY	NUMBER OF LEASES		NUMBER OF ACRES	
	NON-COMPETITIVE	COMPETITIVE	NON-COMPETITIVE	COMPETITIVE
Churchill	161	29	448,263	54,618
Elko	19	-	25,688	-
Esmeralda	33	-	77,135	-
Eureka	13	-	16,299	-
Humboldt	90	7	166,349	13,512
Lander	54	3	84,342	6,328
Lyon	6	4	4,497	5,306
Mineral	18	-	36,224	-
Nye	32	-	53,872	-
Pershing	164	15	280,704	29,185
Storey	1	-	591	-
Washoe	19	11	19,281	18,255
White Pine	42	-	95,309	-
TOTALS	<u>652</u>	<u>69</u>	<u>1,308,554</u>	<u>127,204</u>

Soil, Water, and Air Resource Management

The long-range objectives of this program are to stabilize watersheds, to protect the soil, water, and air resources from further deterioration, and to develop or improve watershed conditions to meet specific resource needs. Typical needs include greater water quality and/or quantity, reduction of flood damage, reduction of sediment, and minimization of airborne materials. The needs are determined by soil, water, and air resource inventory and analysis.

The short-range goals are accomplished through resource development and conservation programs which apply land treatments such as grass seeding, brush control, or fencing that will control or help prevent soil erosion and water and air resource degradation. By reducing erosion and restoring soil productivity, other resource use values such as fish and wildlife development, livestock forage, timber production, outdoor recreation, and aesthetic values on watershed areas are enhanced. These treatments result in better air and water quality, renewal of ground water supplies, control of flood and sediment, protection of public health, and stabilization of local economies.

In order to assist the State of Nevada and to determine impacts of land management practices, a planned water quality monitoring program has been underway since 1979 on Bureau-administered lands statewide. Approximately 80 monitoring locations have been sampled for a single year in each District. These key sample locations are part of a continuing program to provide management information regarding the quality of water and public lands within Nevada. This effort is coordinated with the State of Nevada and other Federal agencies.

Twelve watersheds (see below) throughout Nevada have been monitored since 1962 for water resources, climatological and air resources information. These watersheds represent typical remote watersheds throughout Nevada, and the information collected is used by management for input into decisions where water and air resource information is essential.

NEVADA BLM WATERSHED MONITORING 1962 TO PRESENT

DISTRICT	WATERSHED	AREA	
		SQ. MILES	ACRES
Elko	Rock Springs	77	49,280
	Crain Springs	30	19,200
Winnemucca	Crowley Creek	56	35,840
	Cow Creek	115	73,600
Carson City	Eastgate	213	136,320
	Churchill	73	46,720
Ely	Duckwater	96	61,440
	Steptoe Canyon	45	28,800
Las Vegas	Pine Canyon	32	20,480
	Mathews Canyon	36	23,040
Battle Mountain	Coils Creek	50	32,000
	Mill Creek	23	14,720

Soil surveys are being conducted statewide to provide land managers with information about the soil resource so that soils can be used within their capability and treated according to their needs when making land use decisions. Soil interpretive data provides base line information that will assist in making decisions as it relates to: identification of present and potential ecological plant communities; identification of potential agricultural soils; soil suitability for rangeland seeding; location of structures, highways, utility corridors, recreational facilities, etc.; determination of allowable soil losses and control of erosion; reclamation of mined land, burn areas; integrated and comprehensive assessment of soil resources for land use planning.

The long-range goal is to inventory soils in all BLM-administered land in Nevada by 1988. As of October 1, 1981, more than 30 million acres of soil inventories have been completed. Following is a list of BLM District accomplishments by fiscal year 1981 and cumulative totals.

RESOURCE DEVELOPMENT AND CONSERVATION WORK, FY 81

DISTRICT	SOIL SURVEYS FY 81 (ACRES)
Elko	1,253,000
Winnemucca	656,184
Carson City	450,000
Ely	514,893
Las Vegas	1,250,840
Battle Mountain	<u>1,053,500</u>
TOTAL	5,178,417

TOTAL RESOURCE DEVELOPMENT AND CONSERVATION WORK
1936 THROUGH OCTOBER 1, 1981

DISTRICT	BRUSH CONTROL (ACRES)	GRASS SEEDING (ACRES)	FENCING (MILES)	WATER STRUCTURE (NUMBER)	SOIL SURVEYS (ACRES)
Elko	70,731	182,787	2,054	565	4,067,660
Winnemucca	76,315	78,758	1,855	942	2,684,363
Carson City	25,365	21,380	1,557	929	4,907,064
Ely	16,440	22,581	1,618	352	2,977,885
Las Vegas	23,780	27,518	1,028	245	8,632,537
Battle Mountain	19,755	109,630	921	242	5,238,310
Susanville	<u>14,430</u>	<u>11,487</u>	<u>524</u>	<u>282</u>	<u>1,813,226</u>
TOTALS	246,816	454,141	9,557	3,557	30,321,045*

*Acreage includes approximately 8,000,000 acres of low intensity (Order 4) soil surveys.

Public Domain Forestry

The sale of forest products increased again in 1981. Demands by both private and commercial users, for Christmas trees, cordwood, post and poles, and pine nuts were at a record level in 1981.

The harvest of cordwood and posts and poles exceeded 5,673 million board feet for the year. All BLM districts showed an increased harvest except Las Vegas. Christmas tree sales were 46,716, a 28 percent increase over 1980.

Picking pine nuts is another popular activity on the public land. No permit is required, and a family may collect up to 20 pounds a year free. This year 15 commercial pine nut sales were made that resulted in the harvest of 162,005 pounds. This is the largest harvest of pine nuts from the public domain forest in many years. Pine nuts have been a major source of food for Indian tribes as well as a traditional part of their culture for generations. For this reason, first consideration on many large areas goes to Nevada's Indian tribes.

SUMMARY OF FOREST PRODUCTS SALES FOR 1981

DISTRICT	CHRISTMAS TREES	CORDWOOD	PINE NUTS (LBS.)	FENCE POSTS	TOTAL \$ VALUE
Elko	14,493	762	300	2,508	\$ 16,567
Winnemucca	643	293	0	265	1,282
Carson City	16,476	5,305	14,400	877	34,520
Ely	1,642	645	33,400	5,035	8,285
Las Vegas	11,464	4,257	0	1,938	23,841
Battle Mountain	<u>1,998</u>	<u>700</u>	<u>114,205</u>	<u>7,428</u>	<u>19,043</u>
TOTALS	46,716	11,962	162,305	18,051	\$103,538



The piñon pine yields nuts for commercial, family and Indian use.

Wilderness

Inventory, the first phase of the Bureau's wilderness review, was brought to a close during fiscal year 1981. Directed by Congress to review all the public lands for wilderness consideration, the BLM embarked on a three-phase review effort, consisting of inventory, study, and eventual reporting to Congress of the BLM's recommendations. Those areas which met the wilderness criteria set forth by Congress--roadless areas of 5,000 acres or more, generally in an undeveloped state having outstanding opportunities for solitude or primitive recreation--were identified as Wilderness Study Areas (WSAs). Congress, however, reserved to itself the final decision on which lands will and will not become protected wilderness areas in the National Wilderness Preservation System.

Protests of the statewide wilderness inventory decisions were resolved and several appeals were filed with the Interior Board of Land Appeals as a result of the protest decisions. These appeals are currently being reviewed by the Board, and decisions on each appeal should be issued during 1982.

Studies are underway on roughly one-third of the WSAs in Nevada. The areas under study are in the Winnemucca District and portions of the Battle Mountain and Ely Districts. During the study phase, wilderness will be incorporated into the Bureau's Land Use Planning System where the wilderness resource will be evaluated along with all the other resources on the public lands. Public involvement is an important step in this process. Recommendations coming out of the planning process will be forwarded to the Secretary of the Interior and then the President, who will in turn forward them to Congress.

STATUS OF THE WILDERNESS REVIEW BY THE END OF FISCAL YEAR 1981*

Acres designated WSAs**	5,149,271 (110 units)
Acres eliminated from consideration	43,834,986 (1,593 units)
WSA acres under appeal	3,111,504 (63 units)
Non-WSA acres under appeal	619,617 (10 units)
WSA acres undergoing wilderness study	1,963,490 (33 units)

*Acreage includes public land in Nevada managed by the California and Idaho BLM Offices, but does not include land in California managed by the Nevada BLM.

**Appealed WSA acreage included.



Pine Creek Wilderness Study Area, Clark County.

Wildlife Habitat Management

The Nevada wildlife program consists of two primary efforts, direct habitat improvement through projects specifically for wildlife, and indirect benefits realized from other program actions carried out with wildlife needs in mind. These two aspects encompass the singular objective of the wildlife program: maintaining or improving habitat conditions necessary for fish and animals to thrive. The Habitat Management Plan (HMP), of which 47 have been completed in Nevada to date, remains the primary mechanism for direct habitat and wildlife restoration efforts. Implementation work is progressing on all of these plans as funding permits. The ultimate goal is to have HMPs developed and implemented on all public lands in Nevada considering all species of wildlife: game and non-game, terrestrial and aquatic.

The indirect aspects of the wildlife program include support of land use planning for development of other resources, input to environmental analyses and impact statements, endangered species compliance, input into other resource development programs (allotment management plans, rights-of-way, mineral development, etc.).

A major aspect of both the direct and indirect program is the coordination of resource management planning with other federal and state wildlife agencies and user interests. Through this coordination, benefits to wildlife are often realized through incorporating wildlife provisions in other subactivity management plans, developing stipulation and mitigative measures for wildlife and providing for habitat rehabilitation following development.

WILDLIFE PROJECT WORK COMPLETED IN FY 81

Preparation of Habitat Management Plans	2
Development of water facilities (guzzlers, spring developments)	40
Meadow riparian protection (miles of fencing)	5
Habitat monitoring studies	300
Maintenance of habitat protection fences (miles)	18
Inventory of aquatic habitat (miles)	300



Rocky Mountain bighorn sheep inhabit some areas in Nevada.

Grazing Management

The top priorities of the grazing management program are to gather and to provide data necessary to develop land use plans and a series of environmental impact statements (EISs) on livestock grazing on public land. Out of 14 statements required to analyze the possible environmental impacts of this activity, four have been completed and ten are scheduled for completion over the next six years. The schedule for future statements is: 1982, Clark, Schell, and Reno; 1983, Wells; 1984, Egan and Shoshone-Eureka; 1985, Lahontan; 1986, Elko and Esmeralda; and 1988, Walker. For locations of these resource areas, please refer to the land use planning map.

Following the completion of the EIS and land use plan, grazing management decisions will be issued to make adjustments in grazing use according to a locally developed schedule. Prior to issuing decisions on grazing use, the BLM will consult with all affected parties through the coordinated resource management and planning process (CRMP). CRMP is an approach for bringing various interests -- such as livestock users, government agencies, wildlife and wild horse groups, environmental groups, and others -- together to develop action plans for achieving multiple-use objectives within land use decisions, laws, and regulations. If successful, the result is a consensus and commitment of all those affected to specific courses of actions for each resource in a given area. The data used to support these decisions will come from an intensive statewide monitoring program which may be supplemented with local, site-specific vegetation inventories, where needed, to resolve serious resource conflicts. Grazing uses that will be monitored are wildlife, livestock, and wild horses. Grazing management program personnel continue to administer and manage the public lands by issuing grazing authorizations, conducting compliance checks, and taking action on trespass, when necessary.

Another important aspect of the grazing management program is the experimental stewardship program created by Congress in 1978. The program provides incentives for livestock users to apply innovative approaches to improve range condition. The Tonopah Resource Area is Nevada's pilot area. Implementation of the stewardship effort through the CRMP process began in fiscal year 1981.

FORAGE PROVIDED AND NUMBER OF LIVESTOCK AUTHORIZED TO GRAZE ON PUBLIC LANDS FEE YEAR 1980*

DISTRICT	NUMBER OF OPERATORS	ANIMAL UNIT MONTHS**	NUMBER OF CATTLE	NUMBER OF HORSES	NUMBER OF SHEEP
Elko	157	464,043	112,439	631	30,201
Winnemucca	98	285,604	50,105	185	14,357
Carson City	80	121,600	18,118	38	35,483
Ely	101	163,424	30,465	33	81,563
Las Vegas	99	131,320	14,789	106	13,602
Battle Mountain	72	323,973	66,187	179	26,187
	<u>607</u>	<u>1,489,964</u>	<u>292,103</u>	<u>1,172</u>	<u>201,393</u>

*Grazing fee year 1980 ran from March 1, 1980, to February 1, 1981.

**An Animal Unit Month is a measure of the forage needed to feed one cow or five sheep for one month.

Range Improvements

The public rangelands in Nevada are currently producing vegetation at less than their full potential. The objective of the range improvement program is to achieve improved rangeland conditions within the framework of multiple-use management. To accomplish this objective, the timely and efficient completion of structures, developments, and land treatments coupled with proper grazing management are key factors supporting management actions necessary to improve rangeland conditions. While the majority of these projects are required to support intensive grazing management, other resource values and objectives are considered in designing the projects to ensure the maximum benefit is realized by all uses. One example where supplemental benefits are realized is where a fence and well are needed to implement a livestock grazing system. The resulting change in grazing use patterns may also reduce grazing competition on an adjacent deer winter range and provide additional water to a resident band of wild horses and burros.

The majority of funding for this program originates from the grazing fees paid by livestock operators holding grazing leases and licenses. However, this source may be supplemented by funds appropriated under the Public Rangelands Improvement Act of 1978 or from contributions received from the livestock operators themselves.

RANGE IMPROVEMENTS COMPLETED IN FY 81

TYPE OF IMPROVEMENT	NEW CONSTRUCTION	MAINTENANCE
Cattleguards	44 each	14 units
Fences	35 miles	147 units
Land Treatment	--	1,000 acres
Water Facilities	32 units	135 units



A water development on public rangeland.

Wild Horse and Burro Management

This program was created with passage of the Wild, Free-roaming Horse and Burro Act on December 15, 1971. This federal law provides for the protection, management, and control of all wild horses and burros on lands administered by the BLM and the U.S. Forest Service.

Nationally, about 55,700 wild horses and 17,100 wild burros inhabit these lands. The bulk (52,700 horses and 16,900 burros) live on public lands administered by the BLM in 10 western states. Nevada's share, which includes most of the wild horses, is outlined below.

WILD FREE-ROAMING HORSES AND BURROS IN NEVADA - FY 81

DISTRICT	HORSES	BURROS
Elko	1,688	-
Winnemucca	7,254	200
Carson City	4,323	246
Ely	2,003	-
Las Vegas	5,494	866
Battle Mountain	<u>5,289</u>	<u>18</u>
TOTALS	26,051	1,330

The BLM's goal is to provide uniform and effective direction for the management of these animals on public lands and to establish a natural ecological balance to benefit wild horses and burros and all other users of these lands.

The BLM is authorized by law to round up and remove wild horses and burros when their numbers exceed the optimum grazing capacity. The total removed in fiscal year 1981 is noted below.

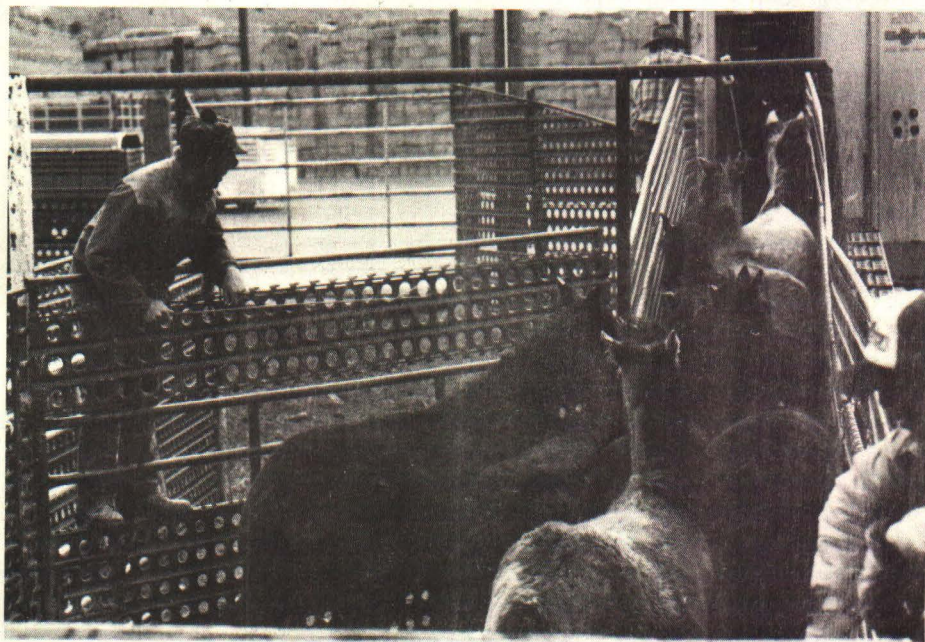
ROUND UPS COMPLETED - FY 81

DISTRICT	GATHERING AREA	HORSES GATHERED
Elko	Owyhee/Snowstorm	389
	Lava Beds/Seven Troughs	608
	East Range	668
	Eugene Mountains	292
	Majuba Mountains	150
	Bloody Run/Krum Hills	173
	West Humboldts	247
Carson City	Clan Alpine	568
	Pine Nuts	30
Battle Mountain	Bald Mountain	271
	Reveille Valley	276
	TOTAL	<u>3,672</u>

After a round up, excess wild horses are transported to a Bureau placement center for handling. There, the animals are carefully checked, given necessary veterinary care, inoculated, and branded with a permanent identification code. Sometimes, a few animals are turned back onto the range because of age or temperament, some are found to be branded and privately owned and are turned over to the State of Nevada for handling, and some either die from natural causes or are humanely destroyed as ordered by a veterinarian because of certain illnesses or infirmities. The large majority are adopted under the Bureau's Adopt-a-Horse program, either from the Nevada facility at Palomino Valley near Sparks or from one of the Bureau's adoption centers in other states.

DISPOSITION OF EXCESS ANIMALS - FY 81

NO. ADOPTED/LOCATION OF ADOPTION CENTER	NUMBER AT PALOMINO VALLEY START OF FY 81	BRANDED/ PRIVATE	DIED OR HUMANELY DESTROYED	BALANCE REMAINING AT PALOMINO VALLEY END OF FY 81
1,713 Nevada	771	83	389	147
580 Texas				
1,010 Tennessee				
208 Washington				
49 Oregon				
<u>264</u> Colorado				
3,824 TOTAL				



Horses from the Palomino Valley corrals are loaded for a trip east to adoption centers in Texas and Oklahoma.

Cultural Resources Management

The objectives of the cultural resources program are to discover and preserve prehistoric, historic, and Indian sites for scientific, cultural, and religious use by present and future generations. The Bureau's cultural resource management program includes inventory, protection or stabilization, and interpretation of these pieces of the past.

Inventory and protection activities are implemented through performance of professional level clearances on all Bureau actions or actions allowed by permit that may have a potentially adverse effect on known or previously undiscovered cultural resources. Through various interpretive and public awareness activities such as signing, construction of interpretive trails, and publications, the BLM is taking a positive step toward increasing public appreciation of the remains of our western heritage.

Field studies performed in fiscal year 1981 included excavations at two rock shelter sites in Hidden Valley, located northeast of Las Vegas; at a large prehistoric campsite in northeastern Nevada; and at a prehistoric quarry site, north of Pyramid Lake. The Hidden Valley study was undertaken by the University of Nevada, Las Vegas, to determine scientific and educational values still present so adequate protective measures can be planned. The other two projects, involving joint efforts by BLM and the Nevada State Museum, are designed to salvage important information from these sites in advance of proposed large scale mining operations. Work at the quarry site includes determination as to whether the site served as a major source of stone for toolmaking for inhabitants of the Pyramid Lake area over a lengthy time span of several thousand years.

In the Carson City District, the American Museum of Natural History, under a small stipend from the BLM, conducted a systematic inventory, mapping and artifact collection at the site of a suspected prehistoric drift fence, probably used in the hunting and ambush of antelope. In central Nevada, a joint, multi-year project between the BLM and the University of Nevada, Reno, was initiated at the Old Cortez mining site. The project involves mapping, test excavation, and stabilization of the remote mining site. Results of the excavations are expected to yield new information concerning the role of ethnic minority cultures in the early Nevada mining days.

Several activities were performed in providing information to the public in regard to this Bureau program. A portable archaeological study kit and slide program was developed by the Carson City District for use by local and regional schools. Four sets of these kits and programs are available to schools in Nevada and to other interested groups. A new interpretive entrance station has been installed at the Grimes Point Interpretive Trail near Fallon. Also, new issues in the ongoing Nevada Bureau's cultural resource publication series was distributed: A Cultural Resources Survey of the Carson and Humboldt Sinks, Nevada.

The South Fork Shelter near Elko, an important site in regard to the history of archaeological research in the State that was being used as an unauthorized fill site, was stabilized to prevent further degradation of remaining archaeological deposits.

CULTURAL RESOURCE INVENTORY

	WORK DONE IN FY 81	TOTAL THROUGH FY 81
Class 3 (Intensively Assessed Acres)	79,430	329,684
Class 2* (Extensively Assessed Acres)	133,200	754,471

*Class 3 acres are also included in Class 2 figures.

PROTECTION, STABILIZATION, AND INTERPRETATION PROJECTS

ACTIVITY	FY 81	TOTAL THROUGH FY 81
Positive Protection Signing	1	23
Research Excavations	3	12
Interpretive Schemes	1	4
Fencing	0	24
Stabilization	0	3
Irregular Patrol and Maintenance	0	58
Regular Patrol and Maintenance	0	12
Protective Withdrawals	0	4
Technical Publications	1	8



Petroglyphs depicting bighorn sheep can occasionally be found in the BLM's Ely and Las Vegas districts.

Recreation Management

The highlight of fiscal year 1981 in the BLM's recreation program was the completion of work on the Red Rock Canyon Recreation Lands Visitor Center near Las Vegas. As one part of an overall management plan for this highly popular recreation area, the visitor center contains interpretive displays to help visitors understand and appreciate the beautiful and fragile desert environment that exists there. Interpretive materials were installed in time for the January 1982 opening. That opening culminates almost 15 years of close cooperation by the BLM, the Nevada Division of State Parks, and the public in the management and development of this unique site.

Other interagency cooperative efforts in fiscal year 1981 included the BLM's assistance to the Heritage Conservation and Recreation Service on inventories directed by the Wild and Scenic Rivers Act and the National Trail Systems Act. BLM also cooperated in the Nevada Division of State Parks' update of its Statewide Comprehensive Outdoor Recreation Plan.

Designation of public lands for off-road vehicle (ORV) use and inventory of recreation potential for consideration in the BLM's land use planning system were also major recreation efforts during the fiscal year. ORV designations are a long-term effort to comply with two Presidential orders to protect areas of the public lands, promote safety, and minimize conflicts between users relating to ORV use. Fiscal year 1980 was the first year public lands in Nevada were designated as either open, closed, or limited to ORV use. All public lands in Nevada will be designated by 1989. The designations are developed through the land use planning system which encourages public participation in making these important choices.

Recreation inventories are also part of the land use planning system. Recreation opportunities are identified on the public lands and evaluated for the particular area under study. These opportunities are then considered in the multiple use context of the area and public input is sought to determine the best combination of uses possible. Where a highly desirable recreation opportunity is identified, the land involved may be designated a recreation management area and special management consideration is given to its recreation potential. The Bureau currently has 37 such areas in Nevada, covering about 1.2 million acres. The importance of these areas is demonstrated by the fact that more than 590,000 visitor/days were spent enjoying these areas during fiscal year 1981. Some of the most popular areas were Red Rock Canyon and the Las Vegas Dunes in the Las Vegas District and Indian Creek and Walker Lake in the Carson City District.

Campgrounds are also popular recreation spots and the Bureau currently maintains nine developed sites in Nevada. Details on these sites follow:

BLM DEVELOPED RECREATION SITES

DISTRICT	NAME OF SITE	NUMBER OF UNITS	OVERNIGHT FEE
Elko	*Ruby Marsh	35	\$2.00
	*North Wildhorse	12	\$2.00
Carson City	Sportsman's Beach	17	-
	Tamarack Point	20	-
	*Indian Creek (California)	30	tent site \$2.00 vehicle site \$3.00
Las Vegas	Willow Creek	16	-
	Cold Creek	6	-
	Willow Spring (Day use only)	19	-
Battle Mountain	Hickison Petroglyph	21	-

*Water suitable for drinking

ORV DESIGNATION, FY 81

DISTRICT	AREAS	ACREAGE OPEN	CLOSED	LIMITED
Carson City	Grimes Point and Sand Mountain	0	540	0

RECREATION INVENTORIES, FY 81

DISTRICT	AREAS	STATUS	ACREAGE
Elko	Wells	Completed	4,141,000
Carson City	Lahontan	Initiated	2,422,000
Ely	Egan	Initiated	3,826,000
Battle Mountain	Shoshone-Eureka	Initiated	4,399,000



Drag races at Sand Mountain, east of Fallon.

Fire Management

The fire management program includes the following activities: fire prevention, presuppression, suppression, and the use of fire as a resource management tool. These activities are integrated with the land use planning process to ensure that fire use and fire control actions are compatible with the involved ecosystems and other management actions.

During fiscal year 1981, fire prevention activities were conducted in all Nevada BLM districts with emphasis on cooperation with the Nevada Division of Forestry and the U.S. Forest Service. Activities included public education through presentations at local schools and distribution of Combined Forest Fire Prevention (Smokey Bear) posters, signs, and educational materials. There were discussions with recreationists, campers, ranchers, and other users of the public lands to explain local burning policies and procedures. During 1980, man-caused fires represented 37 percent of public land fires. During 1981, that figure was reduced to 35 percent as a result of cooperative prevention efforts.

Most of Nevada BLM fire control or suppression actions occur between May 15 and October 31. BLM district organizations initiate fire control actions. The districts' fire dispatch offices coordinate, through an extensive communication system, the use of pumper trucks, hand line crews, helicopters, and retardant bombers. Electronic technology such as the magnetic lightning detection system is also employed.

FIRE ACTIONS DURING CALENDAR YEAR 1981

DISTRICT	NUMBER OF FIRE ACTIONS			TOTALS	ACRES BURNED		TOTALS
	9 ACRES OR LESS	10-99 ACRES	MORE THAN 100 ACRES		BLM	OTHER OWNER-SHIP	
Elko	85	18	18	121	12,722	7,060	19,782
Winnemucca	11	1	8	20	1,635	1,751	3,386
Carson City	42	4	4	50	3,681	6,829	10,510
Ely	110	4	3	117	2,362	--	2,362
Las Vegas	172	13	4	189	1,674	6,022	7,696
Battle Mtn.	31	1	-	32	98	3	111
TOTALS	451	41	37	529	22,172	21,665	43,837
PERCENTAGE	85	8	7	100	51	49	100

Use of fire as a resource management tool is called prescribed burning. Under carefully controlled conditions, the BLM initiates fires in some areas to help meet identified resource objectives.

PRESCRIBED BURNS DURING CALENDAR YEAR 1981

DISTRICT	PURPOSE	ACRES BURNED
Battle Mountain	Range Project Maintenance	600
Carson City	Rate-of-Spread Study*	5
	TOTAL	605

*The rate-of-spread study has two purposes: 1) to obtain field verification of fire behavior prediction models, and 2) to study fire effects on plant species. Reports have been written on both subjects and are available upon request from the Division of Technical Services, BLM, Nevada State Office, P.O. Box 12000, Reno, Nevada 89520. The project will continue in 1982.



Rate-of-spread, flame length and vegetation responses to fire are being studied in a rate-of-fire spread/fire effects project.

Fire Rehabilitation

Immediately after a wildfire on the public lands is contained by BLM firefighters, other resource specialists begin evaluating the area to see if it has the potential to be rehabilitated and if the rehabilitation is cost-effective or necessary to meet resource objectives. The Bureau considers fire rehabilitation an emergency measure, second only to suppression of the wildfire and protection of life and property from flood or other natural disasters that can follow wildfires.

The goals of the BLM's fire rehabilitation efforts are to minimize the loss of soil and productivity, loss of water control, deterioration of water quality, and damage to property on or near the burned area.

The decision on whether or not to attempt rehabilitation is based upon a thorough but expeditious environmental assessment of the area. In some cases the assessment may indicate that rehabilitation efforts are not necessary and could be even more damaging to the area than the fire; in other cases the Bureau begins planning the seeding or construction efforts within 30 days after the fire is controlled. Actual rehabilitation work commences no more than 90 days after the fire unless the State Director defers the time because of a lack of moisture.

TOTAL FIRE REHABILITATION COMPLETED ON PUBLIC LANDS AS OF SEPTEMBER 30, 1981

DISTRICT	SEEDING (ACRES)	FENCE CONSTRUCTION (MILES)	FENCE MAINTENANCE (MILES)
Elko	203,780	67	57
Winnemucca	7,650	32	-
Carson City	17,543	13	32
Ely	15,003	29	-
Las Vegas	4,100	4	1
Battle Mtn.	400	3	-
TOTALS	248,476	148	90

Buildings and Facilities

The Red Rock Canyon Recreation Lands Visitor Center located 15 miles west of Las Vegas in Clark County was completed in the fall of 1981. The \$100,000 Phase II contract for site and landscaping work was awarded in 1981 with the work completed by November. The Visitor Center is tentatively scheduled to open to the public in January 1982.

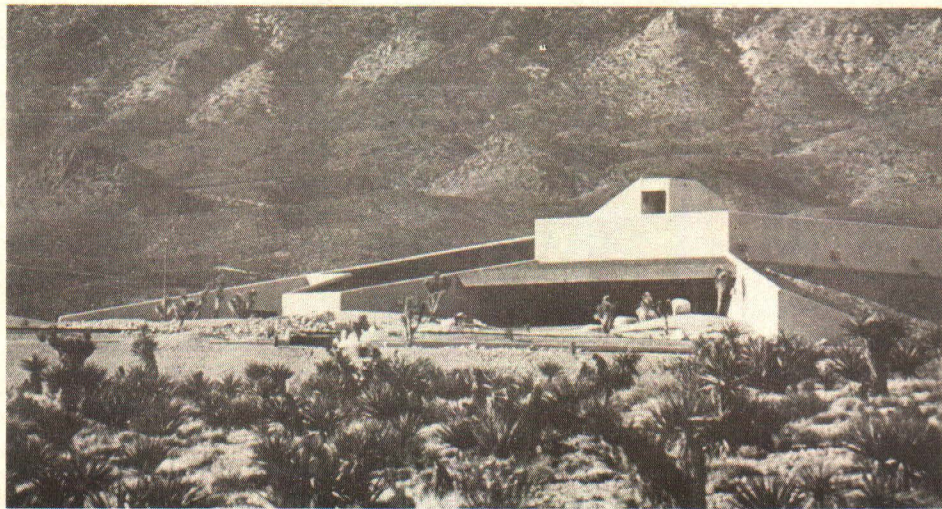
The Bureau spent \$408,000 in fiscal year 1981 to perform routine maintenance on buildings and recreation facilities in Nevada. Of that amount, \$160,000 was spent on building maintenance and \$248,000 on recreational facilities. The latter includes some operational activities other than maintenance.

Roads

The Haystack Bridge, Elko County, Nevada, is scheduled for contract award and construction in the spring of 1982. The new pre-cast concrete bridge with access roads will replace a deteriorated wooden structure.

The BLM's current inventoried road system in Nevada covers 9,400 miles. During fiscal year 1981 about 1,574 miles were maintained at a cost of \$230,000. No new road construction was planned or completed by BLM in Nevada during the 1981 fiscal year. Road system information, by district, follows:

EXISTING MILES BY DISTRICT FY 81		MILES MAINTAINED IN FY 81
Elko	2,400	195
Winnemucca	1,250	323
Carson City	850	295
Ely	1,550	405
Las Vegas	1,400	186
Battle Mountain	1,950	170
TOTALS	<u>9,400</u>	<u>1,574</u>



The award-winning Red Rock Visitor Center, Clark County.