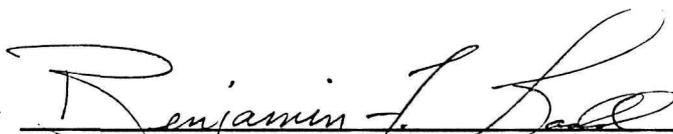


STATEMENT FOR MANAGEMENT

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
PACIFIC NORTHWEST REGION
NATIONAL PARK SERVICE

Prepared by



Superintendent, John Day Fossil Beds
National Monument

Date

8-28-92

Approved by



Regional Director, Pacific Northwest
Region

Date

10/30/92

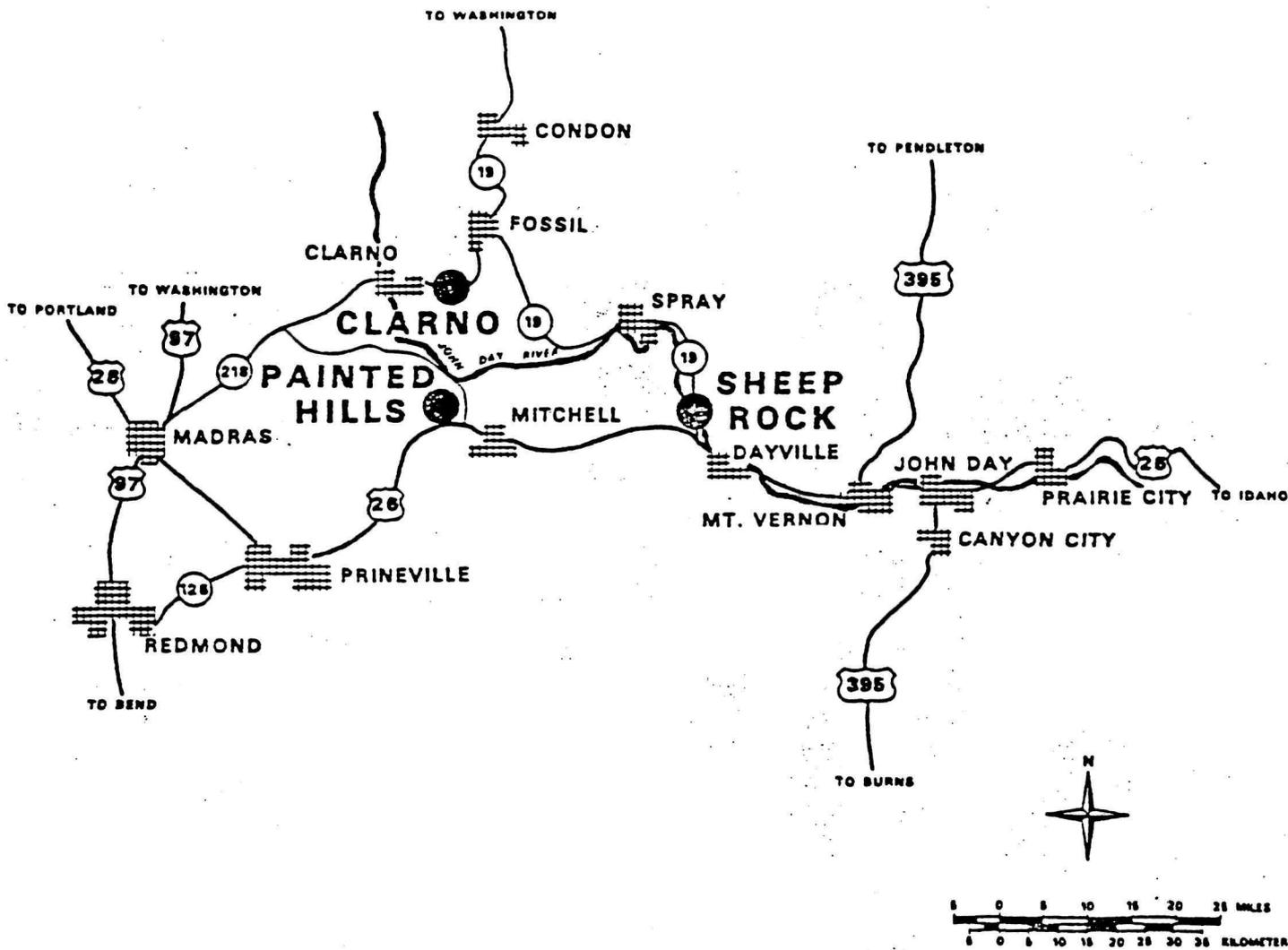
I. LOCATION

John Day Fossil Beds National Monument consists of three widely separated units in Wheeler and Grant Counties of north central Oregon: the Sheep Rock Unit, the Painted Hills Unit, and the Clarno Unit. (See Region, Vicinity, and Boundary Maps).

The Sheep Rock Unit lies in Grant County 5 miles west of the city of Dayville, adjacent to U.S. 26 and Oregon 19. The Painted Hills Unit is in Wheeler County 6 miles from U.S. 26 near Mitchell. The Clarno Unit, also in Wheeler County, is located 20 miles west of Fossil, and about 30 miles east of Shaniko on Oregon 218. John Day Fossil Beds National Monument is in the Second Congressional District.

II. PURPOSE AND SIGNIFICANCE

John Day Fossil Beds National Monument was authorized October 26, 1974, and established October 8, 1975, under the authority of Public Law 93-486, 88 Stat. 1461 (see Appendix A).



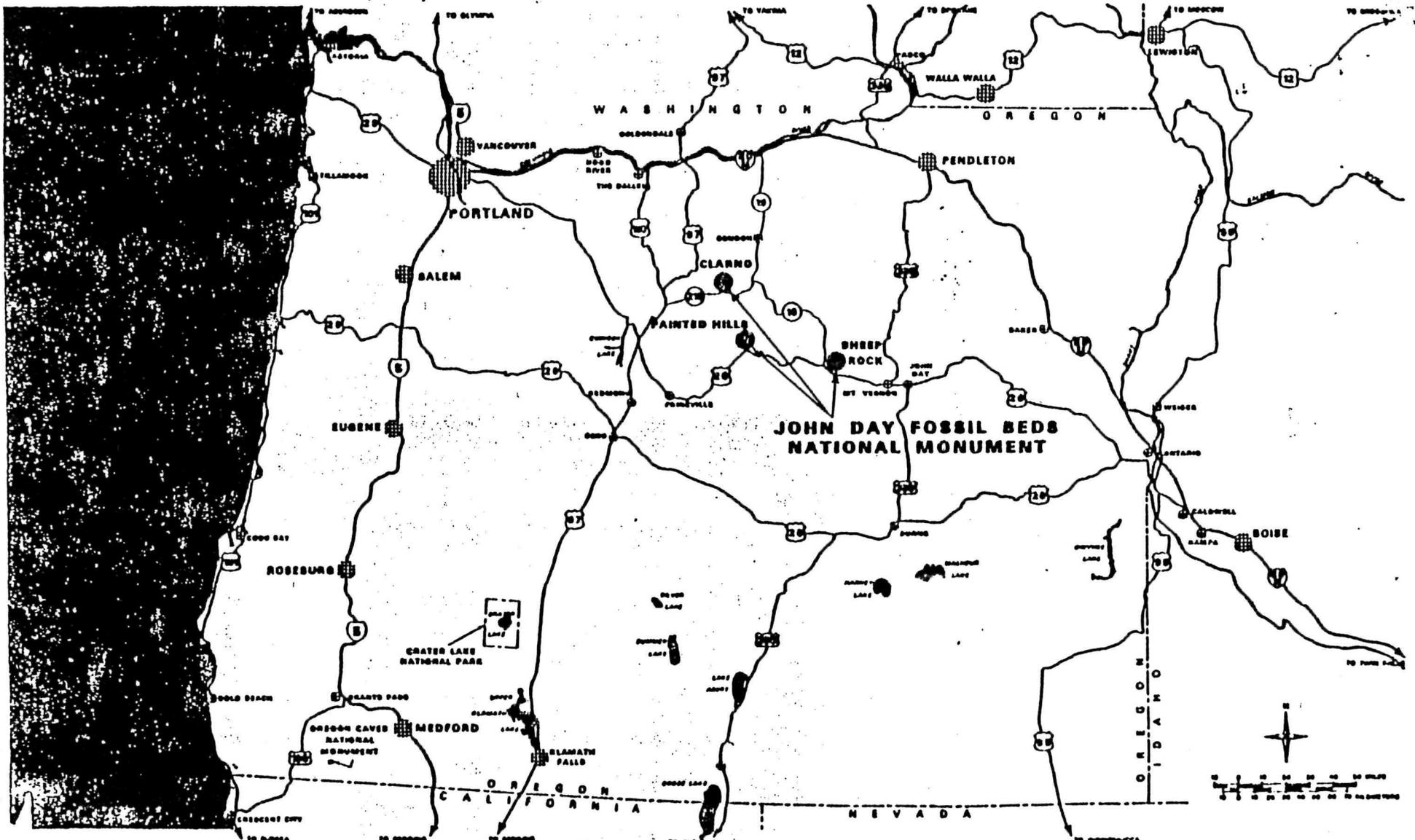
THE VICINITY

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

OREGON

UNITED STATES DEPARTMENT OF THE INTERIOR-NATIONAL PARK SERVICE

177 20.028
APR. 78 DSC



THE REGION
JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
OREGON

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

1:50,000
 APR 15 1964

In 1967 the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments, in its report on the National Park Service study of John Day Fossil Beds, determined that *"it is eminently suitable for geological and paleontological exhibit and interpretive purposes as a John Day Fossil Beds National Monument."*

The Department of the Interior report to Congress dated December 10, 1973, stated that *"establishment of the monument is intended to preserve, protect, and interpret the extensive tertiary fossils found in the geologic formations of these areas."*

Based on these cited provisions and the more general provisions of the National Park Service's 1916 Organic Act, the purpose of the monument is:

To identify, interpret, and protect the geological, paleontological, natural, and cultural resources along the central and upper John Day River and to provide facilities that will promote and assist visitor recreational enjoyment and understanding of the same.

The national significance of the monument lies in the geological and paleontological resources of the John Day River Basin. Its sedimentary strata, representing five major geological formations of the Columbia plateaus, span most of the last 50 million years

and four consecutive geologic epochs. These strata contain one of North America's longest continuous records of plant and animal fossils, tracing the evolution of life forms from the subtropical climate of the Eocene epoch through the semi-arid climate of the Pliocene epoch.

Dr. J. D. Merriam, who studied the area intensively as early as 1899, said: *"Although there are other geological sections, particularly in the Western United States, which furnish a remarkable history...there are probably none of which the relations of the various chapters to each other are more evident than they are in the record inscribed in the walls of the John Day canyon."*

Another noted paleontologist, R.W. Chaney, said in the 1920's that *"no other region in the world shows more complete sequence of tertiary land populations, both plant and animal, than the John Day Basin."*

In addition to the significant paleontological and related geological resources, the monument possesses historic, archaeological, wildlife, water, and vegetation resources, as well as beautiful scenery which contribute to the quality of the area.

III. INFLUENCES: INVENTORY AND ANALYSIS

A. Legislative and Administrative Requirements

Legislative Requirements

Constraints written into the act of October 26, 1974 (P.L. 93-486, 88 Stat. 146), which authorized John Day Fossil Beds National Monument, and the Act of November 10, 1978 (P.L. 95-625, 92 Stat. 3467), which amended portions of the enabling legislation, are as follows:

Lands: Public Law 95-625 revised the boundaries by adding 1,411 acres to the monument and deleting 1,620 acres from the monument as established by Public Law 93-486. Some \$3,500,000 is authorized for acquisition of the new acreage. NOTE: Reversionary provisions in deeds transmitting state-owned lands within the boundaries of the monument to the United States stipulate that if any of those lands should cease to be used for park purposes, ownership would then revert to the State of Oregon.

Visitor Center: "The Secretary shall designate the principal visitor center as the Thomas Condon Visitor Center." This statement is noteworthy in that it not only

specifies the name, but states the intent for the establishment of a visitor center at the National Monument.

Exclusion of Camp Hancock: Map No. NM-JDFB-20,014-A, dated June 1971, and referenced in the enabling act, identifies a 10-acre former lease that the Oregon Museum of Science and Industry held from the Bureau of Land Management. This land is an exclusion from the Clarno Unit of the monument and is utilized primarily as an overnight outdoor classroom and research center for students of all ages. As such, the presence of this installation, and the personnel using it, has some influence upon adjacent resources and visitors. In 1985, title was transferred to the Oregon Museum of Science and Industry.

Historic District: An area of approximately 200 acres of land including irrigated bottomlands, buildings, corrals, and associated grounds within the Sheep Rock Unit is listed on the National Register of Historic Places as the "James Cant Ranch Historic District" and is thus subject to the provisions of the National Historic Preservation Act and related laws and regulations.

John Day Fossil Beds National Monument, currently designated a Class II area for air quality objectives, has been recommended for redesignation to Class I. Section 164(d) of

the Clean Air Act requires that "all national monuments, primitive areas, national preserves" be reviewed, and that the Department of the Interior "recommend any appropriate areas for redesignation as Class I where air quality related values are important attributes of the area." Therefore, in August 1979, the Department of the Interior recommended the park be designated Class I by the State of Oregon. This designation would provide the Federal manager further authority for protecting air quality. The State of Oregon has initiated the redesignation process.

Administrative Constraints

John Day Fossil Beds National Monument contains three separated units located in relatively isolated, sparsely populated east central Oregon. The remoteness of the monument from population centers, and the extreme distance separating the units, influences both management and planning for services and interpretive developments. The units are:

The Sheep Rock unit, situated 5 miles north of Dayville, Oregon, comprising approximately 8,640 acres.

The Painted Hills Unit, situated about 10 miles northwest of Mitchell, Oregon, comprising approximately 2,997 acres.

The Clarno Unit, located 20 miles west of Fossil, Oregon, comprising approximately 2,043 acres.

Park Headquarters is in John Day, Oregon, approximately 40 miles from the closest unit, Sheep Rock.

Jurisdictional Limitation

The National Park Service has proprietary jurisdiction within the monument. Proprietary jurisdiction limits the Federal government's authority to enforce certain laws, particularly those involving crimes against persons. In particular the National Park Service has no authority on private lands within the monument to enforce the regulations contained in the Code of Federal Regulations (Title 36, Part 1, Section 1.1(b)) except for scenic easement violations.

B. Resources

Paleontology and Geology

The paleontological and associated geological resources of the John Day basin are the resources for which this area is recognized nationally, and even internationally, and why the area is a component of the National Park System.

Many statements have been made on why this resource is unique and so scientifically important. Within a relatively small geographical area a tremendous span of earth history is represented by the fossil record. Public interest is enhanced by the particular portion of time represented. Beginning roughly 50 million years ago and continuing intermittently up to approximately 5 million years ago, a major portion of the Cenozoic Era, when mammals and flowering plants were asserting their places as dominant members of the animal and plant worlds, is represented. Adaptations living organisms were making to a changing world during this time span has great application to better understanding of the natural world today. The number and variety of fossils being found here - both in terms of species variety and types of fossils (vertebrate bones, limbs, leaves, seeds, pollens, soils, tracks, etc.); the quality of preservation of many of the fossils; and the presence of datable rock layers in proximity to where the fossils are located also contribute to the special significance of the resource. In summary, there are few places in the world where the "Age of Mammals" can be presented and interpreted for public benefit and enjoyment as clearly, or in so compact an area, as within the John Day River Basin.

The three units of the monument differ in their geologic history and, consequently, in their fossil composition.

The Clarno Unit contains exposures of the oldest fossil bearing formation, the Clarno. Ancient mudslides containing leaf compressions and fossil wood comprise the most commonly seen fossils. Scientific interest in the Clarno area is centered mostly upon the Clarno nut beds and Hancock mammal quarry. Both sites are within the monument, but are privately owned lands. Both sites have been subject to considerable collecting activity. Nevertheless, both sites retain a large amount of their original integrity and scientific value. Protecting these critically important sites from possible destructive collecting and other damaging activities, assuring continued collection of important scientific information, and providing for greater public understanding and appreciation of these sites through controlled public access and interpretation is needed.

Painted Hills is the second unit. Multi-colored, smooth clay hills represent the primary characteristics of this unit. These are portions of the oldest member or layer of the John Day Formation. This member has not been a common source of fossils. However, nearby within the unit are two small shale hills which are the source of abundant leaf fossils known as the Bridge Creek Flora. Also within the

unit are scattered surface deposits of petrified wood and slightly older deposits of the John Day Formation with considerable vertebrate fossil material. Surrounding the unit on private and Bureau of Land Management lands are extensive deposits of the John Day Formation, including many relatively rich deposits of plant and animal fossils. Capping much of the John Day Formation here, as well as elsewhere in the John Day River Basin, is the heavy, dense basalt referred to in this region as Picture Gorge Basalt. No notable fossil material is preserved in this distinct geological formation.

The third unit is Sheep Rock. Five geologic formations - the Rattlesnake, Mascall, Picture Gorge Basalt, John Day and Gable Creek (Goose Rock) predominantly occur in this unit. All, except for the Picture Gorge Basalt, have been and continue to be significant sources of vertebrate fossil material. While bits and pieces of bone and individual teeth comprise most of the fossils seen, skulls and skeletal material of dogs, cats, horses, rhinoceros, camels, oreodonts and numerous other animal families continue to be uncovered by natural weathering processes.

"A Report to the National Park Service on the Significance, History of Investigations, and Salient Paleontological Features of the Upper John Day Basin, Wheeler and Grant

Counties, Oregon" by J. Arnold Shotwell, provides additional general information on the geological and paleontological character of the monument.

Except for rare instances, such as the Clarno Nut Bed or the Hancock mammal quarry, the fossils in the monument tend not to be concentrated in predictable quarry sites. Instead, they are scattered through the vertical geological column, as well as across large horizontal areas. Preservation of the fossil resource and identification of the scientific information usually requires that the fossil be carefully collected as it becomes exposed. Once exposed outside of its relatively hard protective rock covering, the fossil bones quickly weather and deteriorate without special treatment. Collecting also allows careful study which adds to the scientific knowledge of ancient life and provides interesting material for putting on public display (see Museum Collection). Work to date by National Park Service staff and scientists from numerous universities suggests certain members or layers and certain locations of the John Day formation to be the most abundant source of vertebrate fossils. The appearance of fossils in the Rattlesnake, Mascall, and Clarno formations is more modest.

In addition to systematically collecting fossils exposed at the surface by erosion, protection measures must include

limiting access into fossil sites. Fossils are easily dislodged and damaged or destroyed by being walked upon. For some, the temptation to collect a fossil is too much to resist. Lack of ownership of all lands within the monument limits the National Park Service ability to control collecting or limit access onto fossil bearing formations. This is most true for the important sites within the Clarno Formation (nut beds and mammal quarry) and for much of the Mascall and Rattlesnake Formations.

The activity of finding fossils, identifying new ancient plants and animals, and learning about how life has evolved to the present is very much an ongoing activity in the fossil beds of the John Day River Basin.

Scenic Values

The same land forms which are famous for the fossils they contain also contribute to the unusual and varied scenery of the monument and surrounding area. At Clarno the pleasant views of rolling hills dominated by sage and juniper trees is punctuated by the dramatically eroded spires of the "Palisades", ancient mud flows of the Clarno Formation, visible to travelers along Highway 218.

The scenery within and near the Painted Hills Unit is multi-colored and more typical of the Southwest than Oregon. The ancient ash deposits here have weathered to clay and formed gently contoured, smooth hills. The chemical composition and weathering has resulted in colorful bands of reds, yellows, browns, buffs, and black running through the hills. The hills take on different color hues with the amount of sunlight and moisture content of the soil. The hills, however, are very susceptible to erosion and at one time offered a temptation to off-road vehicles, motorcyclists, and hikers. Such use severely detracts from the attractiveness of the hills as well as causing other resource damage. Positioning a park ranger at the site during the visitor season has eliminated most of the problem in the last several years. Prior to establishing the area as a part of John Day Fossil Beds National Monument, the state erected a four-wire steel post fence along each side of the county road through a portion of the unit. The fence has been removed along one side of the road. Consideration is being given to removing the remaining fence to eliminate the visual intrusion. A single unpaved road through the unit offers the only other significant intrusion. An uninterrupted panoramic view into the heart of the Painted Hills is provided at the principal view point. Most of the viewable landscape surrounding the unit is federal land managed by the Bureau of Land Management. This is expected

to assure continuation of the present land uses and preservation of the current visual attractiveness.

The Sheep Rock Unit, approached from the south along U.S. 26, features Picture Gorge, a natural gateway in the basalt. The John Day River meanders through the gorge and traverses the length of the unit, paralleled by Oregon 19. Dramatic viewpoints exist along the highway. The flanks of surrounding hills are sparsely covered with sagebrush, grasses, and juniper. Upper slopes expose striking weathered cliffs and spires of red, green, and buff colored clay formations. Nestled along the valley bottom, about mid-way through the unit, is the James Cant Ranch Historic District. The hay lands and the complex of ranch buildings (ca. 1920) which now serve as the National Park Service visitor contact/paleontological display center, provides a pleasant visual contrast to the surrounding rimrock and colorful geologic exposures.

The location, design and construction of roads, trails and facilities within the monument is currently the primary concern with protecting the visual qualities within the developing park. Appropriate site planning and facility design are important needs.

Present private land uses within and near the boundaries of the monument are not a threat to the monument's scenic resources. The ranching activities are compatible with the natural landscape for the area. Potential does exist, however, for changes in land use and adverse development to occur in the future.

Air quality in the region does not detract from the scenic quality of the area. Views from scenic vistas are not diminished other than occasionally during intermittent periods of controlled or wild forest and range fires.

Vegetation

All three units of the monument support similar plant communities. The basic plant communities include greasewood/cheatgrass, shadscale/Sandberg's bluegrass, big sagebrush/bluebunch wheatgrass, and western juniper/big sagebrush communities. ("Plants and Plant Communities of the John Day Fossil Beds National Monument," Berta A. Youti and A.H. Winward, 1977).

Sensitive plant species that occur in the monument are:

Mimulus washingtonensis var. washingtonensis *

Penstemon deustus var. variabilis **

Asclepias cryptoceras ***

Astragalus diaphanus var. diaphanus ***

Chaenactis nevii ***

* Candidate species for listing on the Federal Threatened and Endangered species list; candidate species for State of Oregon listing; considered by the Oregon Natural Heritage Program (ONHP) to be threatened or endangered throughout its entire range.

** ONHP review list (additional information needed before status can be determined)

*** ONHP watch list (status of the plant is of concern)

Past agricultural uses of monument lands, including livestock grazing on the slopes and hay growing on the valley bottomlands, has impacted much of the native vegetation, particularly herbaceous plants and grasses. In heavily impacted areas exotic plants predominate and in some areas undesirable species or noxious plants thrive.

National Park Service efforts to control undesirable plants in small portions of the park have included application of herbicides; mowing, discing, and other mechanical methods; burning; and seeding of native grasses. Research is being conducted to determine methods for establishing healthy stands of native plants in areas where they have been eradicated or are severely depressed.

Most of the monument lands have been fenced to keep out trespass cattle. Also, over the past 100 years fires have been suppressed. As a result the fuel load is increasing. Research aimed at determining the historic and possible future role of fire in maintaining healthy communities of native vegetation and reducing the risk of catastrophic wildland fire is ongoing. From this information the monument's Fire Management Plan will be re-written to guide a more pro-active management program.

Water

Approximately nine miles of the John Day River and one mile of Rock Creek flow through the Sheep Rock Unit and three miles of Bridge Creek flows through the Painted Hills Unit. These waterways are a major influence on these units of the monument. The John Day River in particular is a major

component of the landscape. None of the stream segments remain in a natural condition due to channelization by highways, other physical controls to increase and maintain the size of tilled agricultural land, and livestock grazing and other activities which removed riparian vegetation. Native riparian vegetation was severely lacking along most of these stream segments within the monument and the banks were steep and badly eroded. Stream bank erosion was removing valuable soil and contributing to siltation in the waterways. Efforts to stabilize the banks and encourage growth of streambank vegetation over the past several years have had a visible positive affect on the riparian areas in the monument. Continued vegetation plantings, fence maintenance, and cooperation with neighboring landowners are among the efforts that will need to be carried on if the condition of these major waterways through the park is to continue improvement.

River associated recreation, particularly along the John Day River, attracts use. Sport fishing is apparently the major draw. Recent land exchanges along Bridge Creek near the Painted Hills Unit are putting riparian lands into public ownership. Recreation use is expected to increase. The National Park Service needs to assess potential impacts to monument lands from river associated uses and develop a management strategy.

The possibility for cloudburst flooding in portions of each of the three units exists. The hazards have been evaluated in some developed and potential developed areas of the park ("Water Availability and Flood Hazards in the John Day Fossil Beds National Monument, Oregon" U.S. Geological Survey, 1979). Future sites for development will need further evaluation.

Springs are a major resource value in this semi-arid region. An inventory of springs in the monument was completed in 1978 and the results published in the above referenced document. In addition to the springs, water for public consumption in the monument is obtained from wells. The water from the well at the Painted Hills picnic area has a high content of iron and other minerals which produces an unpleasant taste and corrodes plumbing. The spring at the Foree area of the Sheep Rock Unit produces a very low volume of water. Water availability is a limiting factor in the monument's development.

Wildlife

Changes in wildlife habitat in the region have likely resulted from human settlement and intensive agriculture over the past 100 years (See "Water"). Deer and coyotes have survived and flourished in all three units. Although not frequently seen, bobcats inhabit all three units. Rabbits, ground squirrels, gophers, and other rodents are common residents throughout the monument. Mink, beaver, muskrat, and raccoons reside within the Sheep Rock Unit. Elk occasionally appear along the periphery of the unit. A list of over 50 species of birds observed in the monument has been compiled. Similar lists of reptiles, amphibians, and arthropods have not been compiled. To better assess wildlife populations and future changes in populations, a thorough inventory and monitoring program is needed.

Rodent damage to irrigation ditches, hay fields and landscaped areas is a continual problem. When the monument was first established some neighboring ranch owners expressed concern about coyotes and deer, protected in the park, preying upon livestock and feeding on hay fields outside of the monument. To date, the evidence does not suggest an appreciable increase in predation or grazing because of the monument ("Coyotes and Mule Deer of John Day

Fossil Beds National Monument: A Management Report," Brad Griffith, 1980). An update of this study may be needed.

Chukar partridge are exotics that have become established in all units. No threatened or endangered wildlife species are known to inhabit the monument.

Fish

The portion of the John Day River passing through the Sheep Rock Unit provides very important steelhead and rainbow trout rearing habitat, as well as angling water. Angling interest in the steelhead of the John Day River is fairly high. Fishing opportunities provided in the monument will become increasingly important as landowners post their lands. Bridge Creek in the Painted Hills Unit provides limited steelhead spawning and some rearing habitat.

Other fish species found in the reaches of the John Day River within the monument include native redband trout, spring chinook salmon, mountain whitefish and, rarely, Dolly Varden. Introduced species include small-mouth bass, black bullhead, and brown bullhead. Fresh water sculpin and miscellaneous minnows, carp, suckers and lamprey are also

present. Fishing is regulated by the Oregon Department of Fish and Wildlife.

History

The monument encompasses a number of historic resources. Among the themes are the seasonal inhabitation of the region by different Columbia Plateau Indian tribes and bands; fur trapping; gold discovery; early military involvement; settlement and ranching; and early paleontological discovery and collecting expeditions.

The most visible historic resource in the monument is the Cant Ranch (ca. 1920). Two hundred acres of bottomland and buildings including a three-story ranch house, barn and other out-buildings are listed on the National Register of Historic Places as the "James Cant Ranch Historic District." The buildings are being adaptively used for National Park Service offices, exhibit space, staff work areas, and storage. Repairs, including stabilization, and maintenance of the buildings are costly. A Historic Structures Preservation Guide for guiding ongoing maintenance of the structures was completed in 1987. Planning and study efforts are presently underway to learn more about the

appearance and function of the ranch prior to the establishment of the national monument and to guide the further adaptation of the ranch house for use as park headquarters.

Archaeology

An archaeological survey of the monument was conducted in 1976 by Oregon State University under a National Park Service contract. The results of the survey are reported in a manuscript entitled "Final Report, Survey of Historic and Prehistoric Resources in the John Day Fossil Beds National Monument," by Wilbur A. Davis. The survey generally covered the areas of the monument judged most likely to yield remains, and areas where visitor or administrative facilities might be developed. The portions of the area covered by the survey are depicted in the report cited above. As new developments are proposed, site specific archaeological surveys or consultations have to take place prior to the work. A complete monument-wide survey is needed.

Picture Gorge contains several undisturbed pictographs on the Oregon highway right-of-way. Others in the gorge have been vandalized or were destroyed during highway

construction. The pictographs are situated on smooth basalt faces and, though accessible, are passed by, unnoticed, by most travelers. Pictographs are also found in the Clarno Unit. Information on the significance of these pictographs and direction on how they should be managed is needed.

Museum Collection

The National Park Service is accumulating a growing collection of objects, most of which are fossils collected from the monument. Protection of the fossils necessitates proper collection, stabilization and record keeping as they become exposed from the surrounding rock or matrix (see "Paleontology and Geology"). An adequate storage facility with security, space to work with the material, proximity to curatorial work space, and other mandated requirements is lacking in the monument. Needs are presently being minimally met with temporary storage at the monument's headquarters in John Day.

To provide for visitor opportunity to see the fossils, to provide support for ongoing scientific research efforts, to provide readily available exhibit specimens, and to assure adequate management of the collection, the decision was made to house the collection at the monument.

C. Land Uses and Trends

The monument is 14,011 acres in size. Of this total 10,893 acres is federally owned, 179 acres is state and county owned (including highway right-of-ways) and 2939 acres is in private ownership. The "Land Protection Plan for John Day Fossil Beds National Monument" approved in 1984 with revisions in 1986 and 1990 contains an assessment of the land protection needs for non-federally owned lands within the monument boundaries. The plan identifies the top priorities as protection of significant fossil deposits on private lands, provide for public access and preserve scenic landscape (2183 acres) and provide for development of public facilities (17 acres) Scenic easements rather than fee simple ownership is adequate to meet much of the protection objectives.

Less than one percent of the federal land within the monument is subject to development or intensive agricultural use such as hay growing. Most of the former livestock grazing on federal lands within the monument has been curtailed. Some parcels of former Bureau of Land Management (BLM) administered lands within the monument, formerly leased for grazing, continue to be used for grazing until the permittees relinquish their permits. The parcels are

mostly isolated lands not contiguous to other government owned lands within the monument.

Continued agricultural use of the James Cant Ranch Historic District will be in compliance with the National Park Service Historic Property Leasing Guideline (NPS-38).

Most visitor use is confined to the developed areas of the monument (Cant Ranch, trails and roads). The remainder of monument lands containing the fossil bearing geological formations serve as a picturesque backdrop for the visitor use areas, and provide wildlife habitat. Additional trail development is necessary to provide visitors with greater access into the monument. The lack of government ownership of key lands within the monument limits development of public access and facilities. Examples include the site known as "Mascall Overlook" in the Sheep Rock Unit and the Clarno Nut Beds and Mammal Quarry in the Clarno Unit.

Agriculture dominates the use of private land within the monument and surrounding it. Irrigated hay lands is the predominant use within the valley. Dryland grazing is predominant on the hills. Commercial logging of timber occurs on federal, state, and private land along the slopes of the surrounding mountains.

Recreational land use in the region is popular; but due to the distance from major population centers, is not yet attracting large numbers of people. The exception is the relatively large number of sport hunters drawn to the region in the fall. Fishing along the John Day River is attracting increasing interest with returns of good runs of native steelhead some years. Boating on the John Day River is generally limited to the lower river outside of the monument. However, some boating, mostly drift boat fishermen and the occasional canoeist, rafter or innertuber, does occur on the John Day River through the Sheep Rock Unit. Regional and State efforts at promoting tourism coupled with construction of museums and other attractions and recent, and planned, improvements in highways is expected to increase visitation to the John Day Valley dramatically in the coming years.

The Oregon Museum of Science and Industry owns and operates an environmental education field camp known as Hancock Field Station on a ten acre enclave surrounded by the Clarno Unit. The facility is accessed via an unpaved road across monument lands. Foot trails leading from the camp are also located on monument land.

Both Grant and Wheeler Counties have developed approved comprehensive plans which guide land uses. Predominant current and projected land uses in the two counties are tied to timber production and agriculture (livestock and livestock feed). Tourism is receiving increasing attention in the region as a supplemental economic endeavor. However, other than a generous quantity of public lands, the region lacks major destination-type tourist attractions. The national monument offers one of the few attractions known to people from outside the area. Population within the two counties is not expected to increase substantially in the near term and may decrease with depressions in the timber industry.

With increased tourism promotion in the State and local area, the demand for campground space near the monument is expected to increase. A trend towards development of small, privately owned and operated campsites is expected as tourism increases. The Bureau of Land Management (BLM) is considering campground development as part of their plans for land adjacent to the Painted Hills Unit.

The Bureau of Land Management (BLM) manages land adjacent, or in close proximity, to the monument. The opportunity

exists for cooperation between the two agencies to assure protection of scenic vistas, to rehabilitate the riparian area along Bridge Creek, to manage fossil resources, and to work together in other endeavors to maintain the natural and cultural resources of the area. Consolidation of public lands into large tracts, such as the recent land exchange which occurred adjacent to the Painted Hills Unit, will probably increase public recreational activities in the area.

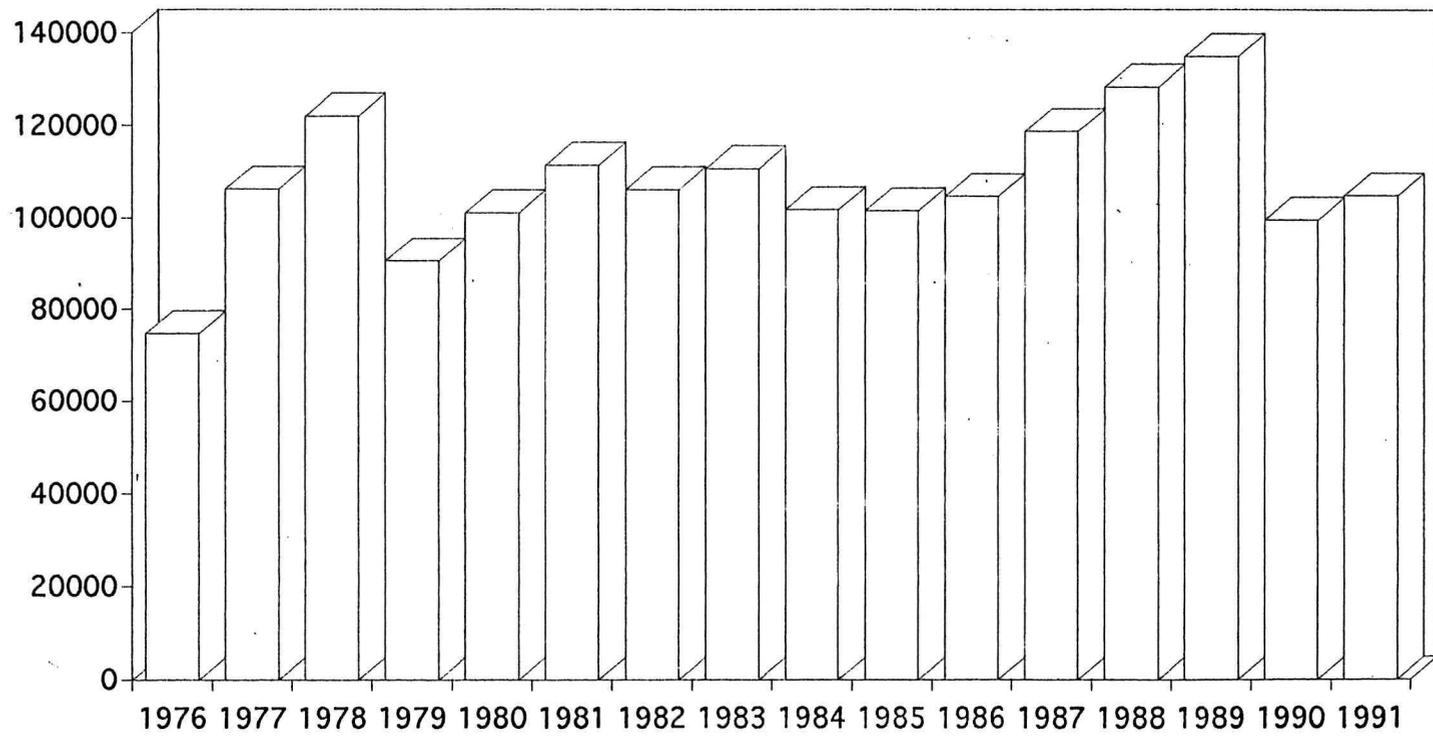
D. Visitor Use Analysis

Visitation to the monument has been calculated each year since 1976, but not always in a consistent manner. In 1990, the method for counting visitors was modified after completing a visitation survey conducted under the auspices of the statistics office of the Denver Service Center of the National Park Service. Tables 1 and 2 illustrate monument-wide and visitor center visitation for the past several years.

In 1990 a survey was conducted during one week in August by the Cooperative Park Studies Unit of the University of Idaho to determine how visitors visit the multi-unit monument,

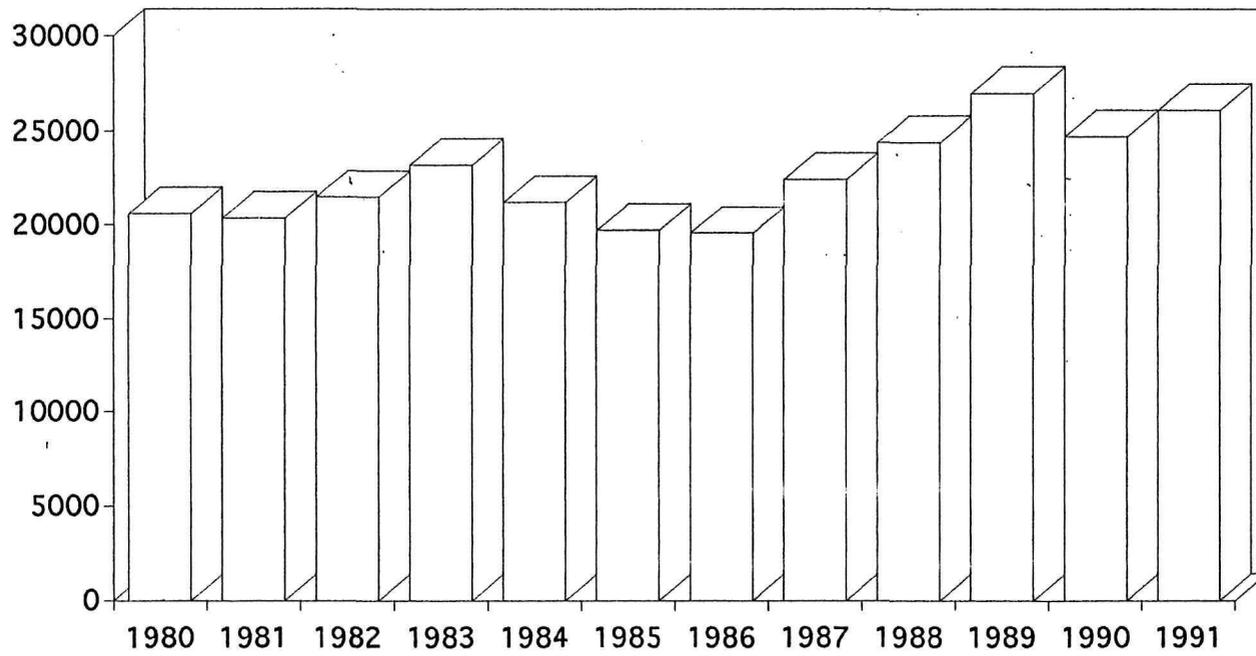
John Day Fossil Beds National Monument

Annual Recreation Visits Table 1

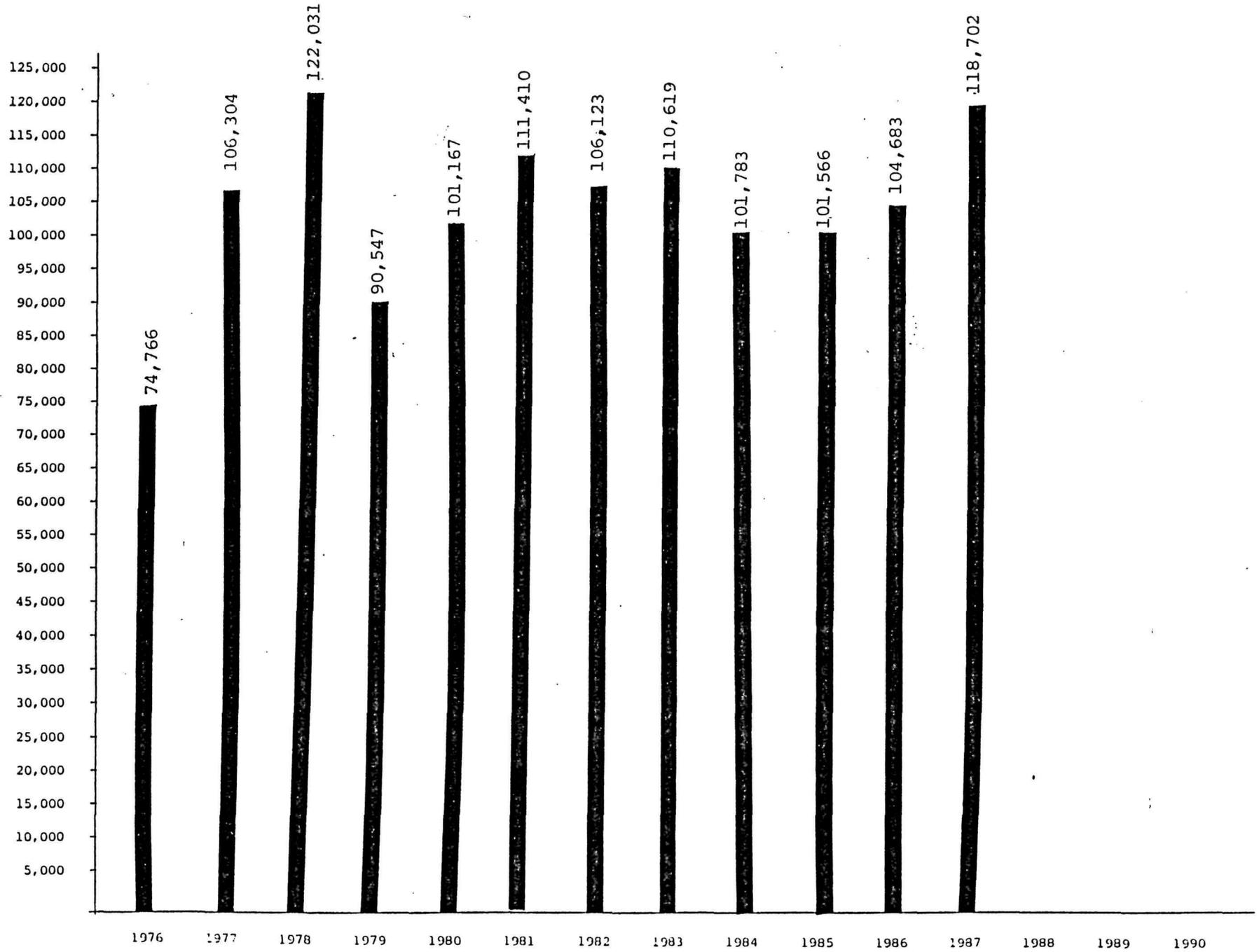


John Day Fossil Beds National Monument

Annual Visitor Center Visitation Table 2



ANNUAL RECREATION VISITS



what features attracted them to the monument and to the area, measured visitor satisfaction, and provided socio-economic indicators. The final report entitled Visitor Services Project, John Day Fossil Beds National Monument, Report No. 37, Cooperative Park Studies Unit, University of Idaho, 1991, is available. Some of the highlights include:

* Visitors were commonly in family groups (65%); often in groups of two (48%). The largest group was 65 people. Thirty-one percent of visitors were 31-45 years old and 23% were under 15 years of age. Most (78%) were on their first visit to the monument. Americans came predominantly from Oregon (59%), Washington (30%), and California (11%). Idaho (36%) and Utah (10%) also contributed double-digit percentages.

* Foreign visitors comprised 7% of the total visitation. Most of these came from Canada (30%) and Germany (29%). Seven other foreign nations were represented in the remaining three percent.

* The form of transportation most frequently used to get to John Day Fossil Beds was private automobile (82%) followed by RV (16%).

* Visitors were asked to identify their primary reason for visiting northeastern Oregon. The largest proportion said that they were travelling through - had no planned destination in the area (33%). The next most often listed reasons were to visit John Day Fossil Beds (25%), recreation (12%), or to visit friends/relatives (11%).

* Visitor use of the monument is affected by limited means of access. Access to this area of the state is via secondary route highways (non-interstate). Public transportation alternatives do not exist in close proximity to the monument.

* Access to the Sheep Rock Unit is via U.S. 26 and Oregon 19. Short paved access roads with terminal parking areas exist at Blue Basin and Foree. Oregon 218 provides access to the Clarno Unit. Access to the Oregon Museum of Science and Industry camp is via a dirt road off Oregon 218. Access to the Painted Hills Unit is by a paved county road 6 miles north of U.S. 26 near Mitchell. Access through the unit is via a narrow, unpaved county road. Short unpaved roads provide vehicular access to trail heads, scenic overlooks, and the picnic area.

* Visitation is heaviest during the months of May through September with July being the peak visitation month. An average of 600 visitors per day visit the monument during this month.

E. Facilities and Equipment Analysis

Roads which existed prior to establishment of the monument, provide limited access into selected areas of the monument. In some cases, minor road relocation may be needed to better accommodate visitor needs and protection of the park resource values. The entrance roads and parking areas at Blue Basin and Foree are scheduled for resurfacing and other repairs in late 1992. The road system in the Painted Hills Unit is maintained by the county. Unfortunately, the NPS is unable to contribute funds towards the upkeep of the road due to its ownership by the county.

Short interpretive trails are present in each of the units. Steps are being taken to redesign and resurface some of these trails to better accommodate handicap accessibility. The monument offers some opportunities for development of longer trails, which could provide scenic vistas and access into interesting areas. Such trails are commonly requested by visitors.

Visitor facilities offering orientation and interpretive exhibits, contact with park interpretive staff, and printed materials are available at the visitor center in the Sheep Rock Unit, at Monument Headquarters in John Day, and at a small kiosk (which is infrequently staffed) at the Painted Hills Unit . A historic early 20th century farm house and associated buildings serve as the present visitor center.

Planning is underway for the construction of the Thomas Condon Visitor Center to be located across Oregon Highway 19 from the present Sheep Rock Overlook and less than 1/4 mile from the present entrance to the Cant Ranch House. Congress provided funding for the design of the building and the site. To date no funding has been provided to complete exhibit plans and construction drawings nor for preparation of the site and construction of the building and exhibits.

Wayside exhibits provide on-site interpretation throughout the monument. The revised Interpretive Plan, approved in 1991, calls for expansion of the wayside exhibits, including off-monument locations and standardization of the current exhibits. The Interpretive Plan also calls for the preparation of a new monument-wide wayside exhibits plan to guide standardization, rehabilitation, and production of exhibits.

Park Headquarters in John Day offers the advantage of location in the largest community in either Grant or Wheeler Counties. However, it is 40 miles in distance from the closest of the three units. There are unavoidable inefficiencies in operating a park as widely scattered as the three units of this monument. However, the present location of the headquarters compounds the problem. With construction of the new visitor center, the National Park Service plans to relocate its administrative headquarters to the Cant House within the Sheep Rock Unit, thereby centralizing most staff and operations.

Public water systems exist in all three units of the monument. The mineral content in the system at Painted Hills contributes to corrosion of the fixtures and bad taste of the water. The quantity of domestic water at Foree is sometimes insufficient for the public and residential needs there. The system at the Cant Ranch visitor center has been very reliable. However, with plans to expand the facilities (Thomas Condon Visitor Center and possibly a residence) the system will need to be re-evaluated. At a minimum, the storage capacity will need to be substantially increased.

Modern rest rooms are available at the visitor center. However, the rest rooms are accessible only from inside the building and are not available to after-hours visitors. Pit toilets are provided at the remainder of the public use areas of the monument. Composting toilets have been installed at two sites in the monument, replacing the more traditional vault systems. So far these new facilities have performed very well.

Employee housing consists of a three bedroom mobile home at Foree and a modular one bedroom house at Painted Hills. The mobile home will eventually need to be replaced to be consistent with nationwide National Park Service housing goals. However, the present facility is in very good condition and fulfills the need for quality housing. Need for in-park housing is being reassessed in view of proposed park facility expansion. There is a growing need to meet requests for inexpensive seasonal housing, for prospective Volunteers-in-the-Park, and for visiting research specialists working in the monument.

The James Cant Ranch Historic District includes eleven structures on the List of Classified Structures. Most of these buildings are being adaptively used by the National Park Service for visitor exhibit areas, offices, work spaces

and storage. Visitor uses and park staff uses, particularly maintenance operations, of this area are frequently in conflict with one another. The Denver Service Center of the NPS, in cooperation with the Pacific Northwest Regional Office, monument staff and the State Historic Preservation Office is currently developing a site plan for future adaptive use of the structures and lands within the historic district. The Cant Ranch House, which currently serves as the interim visitor center, as well as offices for most of the park staff, will serve as the future monument headquarters building with limited exhibit area and visitor access. Some structural work will be needed to assure the long-term stability of the building and to not compromise its cultural integrity. Other structures in the district on the List of Classified Structures include the work shop (currently the monument's maintenance building); a log cabin (fossil demonstration lab/exhibit area); the bunkhouse (fossil laboratory); and the barn (storage, maintenance work area). Other smaller structures are not presently used. Future adaptive use of these buildings depends upon completion of the site plan and completion of other construction projects.

The needs of handicapped visitors are being assessed in relation to the facilities and opportunities now provided.

Future park development will reflect these needs. Most monument facilities are inadequate for handicap visitor needs at this time.

Gradually the monument has acquired or replaced the equipment needed to facilitate a developing area. Renting equipment is frequently not feasible. In recent years the acquisition of a tractor/backhoe, utility truck, flatbed trailer, lawn mower/tractor, two-horse trailer, wildland fire truck and miscellaneous implements has greatly facilitated the ability to accomplish projects. There are additional equipment needs that the monument will try to fulfill, possibly with surplus equipment. Most of the monument's vehicle fleet is composed of rentals from the General Services Administration (GSA). Often GSA has been unable to fulfill monument needs for vehicles, particularly seasonal needs, on a timely basis and with the equipment desired.

F. Status of Planning

Following is a list of the various plans for John Day Fossil Beds National Monument. Much of the major planning for the monument was accomplished in the early years of the park.

In the past few years, much has changed in terms of the National Park Service's understanding of the resources of the monument, the Service's perception of what is needed to accomplish the purpose of the monument, and the public's perception of the monument. Perhaps the greatest need is for a major revision to the General Management Plan. Changes in land ownership of lands adjacent to the monument, increased understanding of the natural and cultural resources for which the monument was established, re-examination of the monument boundaries, and a re-assessment of the facilities needed to guide park development into the 21st Century are among the issues to be addressed.

<u>Name of Plan/Study</u>	<u>Date</u>	<u>Comment</u>	<u>Repository</u>
GENERAL MANAGEMENT PLANS			
General Management Plan (Preparer-JODA/PNR/DSC)	1979 minor update in 1984	out-of-date	JODA/PNR/DSC
Resource Management Plan (Preparer - JODA)	1992?	adequate	JODA/PNR/DSC
General Development Component (Preparer-JODA/PNR/DSC)	1979 minor update in 1984	depends on GMP update	JODA/PNR/DSC
IMPLEMENTATION PLANS			
Natural Resource: (All Prepared by JODA)			
Fire Management Plan	1987	update needed	JODA/PNR
Vegetation Management Plan		in preparation	JODA
Grazing Management Plan		needed	JODA
Historic Orchard Plan		needed	
Hazard Tree Management Plan		needed	

Paleontology Research Plan 1989	adequate	JODA
Cultural Resources:		
Historic Resource Study	needed	
Historic Structure Report (Preparer PNR)	needed	
Historic Structures Preservation Guide 1987 (Preparer PNR)	adequate	JODA/PNR/DSC
Administrative History (Preparer PNR)	needed	
Collection Preservation Guide (Prepared HFC/PNR)	in draft	PNR
National Register of Historic Places Documentation 1984 (Preparer PNR)	adequate/ completed	PNR/JODA
Documentation of Cant Ranch Historic District (Main House) to Standards of Historic American Buildings Survey	Adequate	PNR

DEVELOPMENT

Thomas Condon Visitor in progress DSC/PNR/JODA
 Center design
 (Preparer - DSC)

Thomas Condon Visitor in progress HFC
 Center exhibit design
 (Preparer - HFC)

Design Guidelines April 1992 draft DSC
 Sheep Rock Unit
 (Preparer - DSC)

Site Development Plan, Sheep Rock Unit,
 Cant Ranch Complex in draft JODA/PNR
 (Preparer JODA/PNR)

OTHER

Park Legislative History 1985 adequate JODA/PNR/HFC
 (Preparer PNR)

Park Sign Plan in draft JODA
 (Preparer JODA)

G. Existing Management Zoning

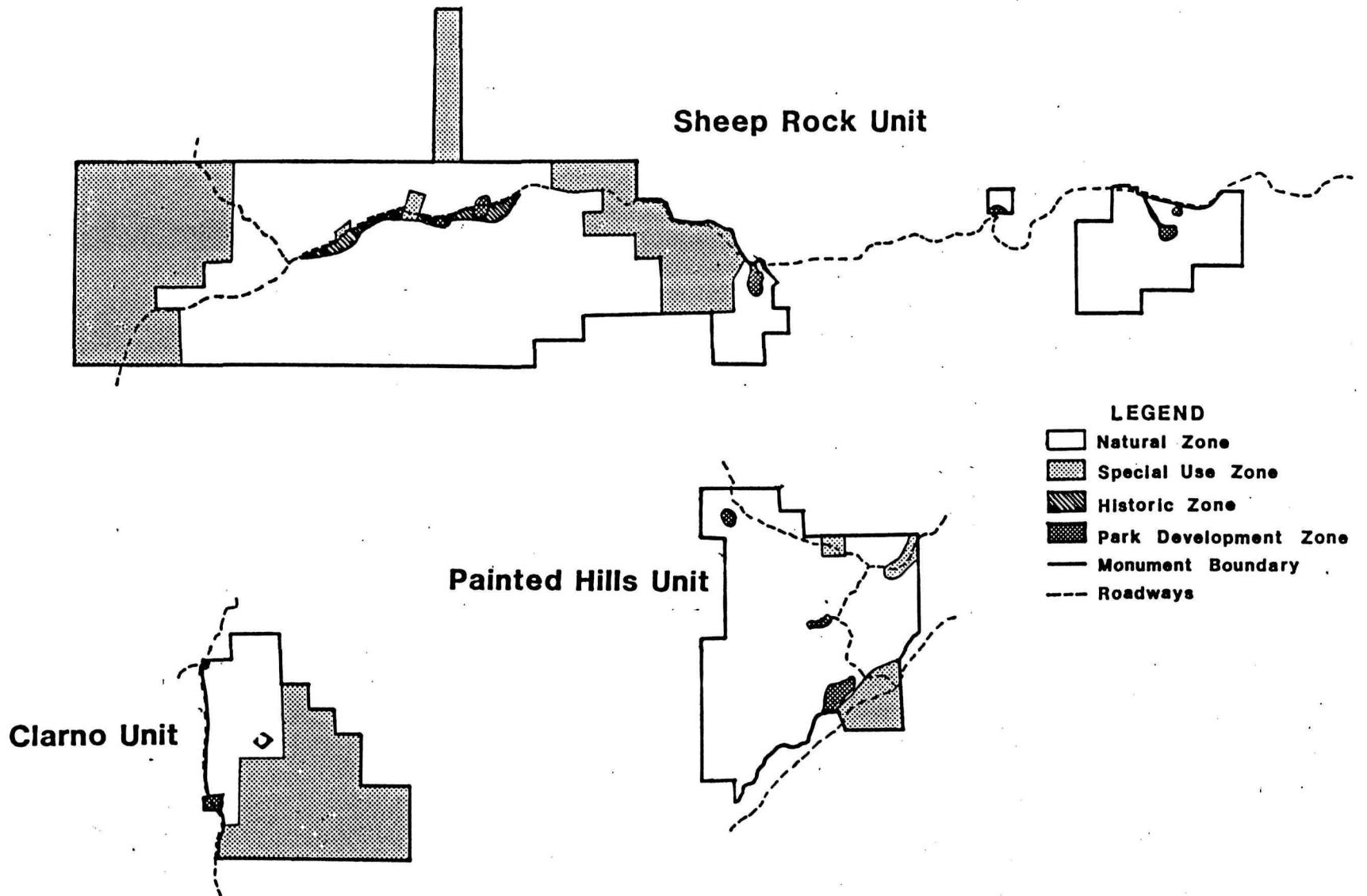
The map labelled "Existing Land Use" delineates the current zoning scheme for all lands within the monument. The current zoning is subject to revision as changes occur. Proposed changes in land uses is a function in updating and revising the General Management Plan.

Natural Zone

Management emphasis is placed on conservation of natural resources and processes. Uses that do not adversely affect these resources and processes are accommodated. The natural zone at John Day Fossil Beds National Monument encompasses the undeveloped portions of former Oregon State Park and Bureau of Land Management lands that were transferred to the National Park Service. It also includes portions of private lands acquired since the monument was established.

Historic Zone

The historic zone provides for the preservation, protection, and interpretation of cultural resources and their settings. This zone includes areas of known archaeological and historic significance, including the 200 acre James Cant Ranch Historic District which is on the National Register of Historic Places as a site of local historic significance.



MANAGEMENT ZONING
John Day Fossil Beds National Monument

Park Development Zone

Provision and maintenance of park development to serve the needs of park management and visitors is the emphasis placed within this zone. This zone included areas where park development and/or intensive use substantially alters the natural environment or the setting for historically significant resources. The zone includes three small picnic areas, trailhead parking, parking at view points, park maintenance storage yard, and the visitor center complex within the James Cant Ranch Historic District.

Special Use Zone

This zone is characterized by uses carried out by other governmental agencies or private interests on lands within exterior park boundaries. NPS administrative control over the use of the lands in this zone is either lacking or qualified in terms of permitting uses not covered in the three preceding zones. The zone includes privately owned lands within the Congressional boundary of the monument, former BLM lands that continue to be utilized for grazing under special use permits, and small isolated federally owned tracts within the monument boundaries that are not particularly suited to being managed to conserve the natural resources.

IV. MAJOR MANAGEMENT ISSUES

Following is a list of specific issues and concerns derived from the preceding information. The list is used in defining management objectives and in identifying future changes or additions in programs and facilities.

Natural and Cultural Resources

* John Day Fossil Beds has been described "as a place of discovery". Recovery of fossils, learning new and different things about the fossils and the geological formations in which they are found, re-examining the fossils in the museum collection with new technology or simply with a new slate of questions or perspectives is an ongoing process. Not only does the process further the cause of scientific investigation and discovery, but it enriches the interpretation opportunities presented to visitors to the monument. Continued direct and indirect support of research is needed.

* More paleontological objects continue to erode from the formations within the monument and on adjacent lands. The process of discovery, stabilization and recovery of the fossils and associated data, and data entry must be on-going in order to preserve the resource.

* Elimination of livestock grazing within the monument during the past several years coupled with over 100 years of control of fire has resulted in a heavy composition of heavy fine to moderate fire fuels in much of the monument. The result is a vegetative system that is not like that which was here prior to settlement by Euro-americans in the late 19th century. With the build-up of fuel loads there is an increasing risk of more intense and destructive wildfire.

* The vegetative composition in much of the monument has been disrupted by decades of livestock grazing and other agricultural uses. The result has been the replacement of native species of plants with exotics, including noxious weeds. Quite frequently the most severely impacted land tends to coincide with portions of the monument most visible and most used by visitors. The influx of new species of exotic weeds continues, particularly on previously disturbed lands.

* A portion of the John Day River, Rock Creek and Bridge Creek pass through the monument. These riparian areas offer important habitat for fish, wildlife and vegetation. They also attract recreational uses. The riparian areas have been severely impacted by past human influences.

* Maintaining the character of the 1920's era historic ranch, including buildings, grounds, and agricultural fields is a constant challenge with adaptive uses, changing agricultural methods, and balancing NPS effort with the primary purpose for this particular national monument.

Facilities

* The monument lacks a visitor facility to provide visitor orientation, information, and interpretation as well as a facility to support paleontological resource management, research and education. The geological and paleontological resources of the John Day Basin are of world class significance deserving of a facility to manage, study, and bring these resources to the attention of the public.

* The principal park maintenance facilities are located within the historic Cant Ranch complex, which is the primary visitor concentration area in the monument. Not only are the facilities inadequate for the monument maintenance functions, the presence of this activity amidst visitor uses creates conflicts and potential safety hazards.

* Presently, monument headquarters are located in the community of John Day, 40 miles distance from the closest of the three units. Being located in the largest population

center in either Grant or Wheeler County offers certain benefits. However, locating headquarters so far from the monument and separating employee work sites at such distance from each other contributes to inefficiencies in monument operations.

* The remoteness of the monument coupled with lack of government furnished housing severely limits the amount of volunteer staff assistance, including research assistance, the National Park Service is able to obtain.

* The ability of visitors to spend more than several hours or a day in the monument is limited by lack of camping facilities within or near the monument.

* Public access into portions of the monument is constrained by lack of developed trails.

* The monument lacks an approved design theme. Subsequently many structures and facilities lack consistency in style, form and materials.

* Continued and expanded adaptive use of historic structures within the James Cant Ranch Historic District may be dependent upon their structural integrity.

Lands

* Approximately twenty-five percent of the land area within the monument is in non-federal ownership. The principal geological/paleontological resources which contributed to the establishment of the monument are, in some instances, situated on private property. The monument's proprietary jurisdiction limits the National Park Service authority and ability to protect and manage resources on non-federal lands. In addition, public opportunity to see and appreciate these resources is severely limited.

* In some cases monument boundaries do not correspond with the location of the significant natural resources for which the monument was established. Also, present boundaries do not completely facilitate development of public access into portions of the monument.

Public Use

* Visitation to the monument is expected to grow significantly in the future with expected completion of the Thomas Condon Visitor Center, with improvements to local highways, and with promotion of tourism in eastern Oregon.

Regional Influences

* Recent changes in ownership of surrounding lands is expected to have impacts on the monument.

* The monument is relatively small in area. Activities on surrounding lands can have an impact upon the monument and upon much of its resources including air, water, vegetation and wildlife.

V. MANAGEMENT OBJECTIVES

A. Conservation of Resources

To preserve the monument's extensive record of Cenozoic plant and animal fossils and to encourage resource-compatible use of the monument for acquisition of additional knowledge of the paleontological, geological, and climatological history of the region.

To conserve and, where necessary, improve the monument's ecological resources, free from the adverse influences of man, as enduring examples of the physiographic and biotic communities of the Columbia plateaus.

To identify, determine the significance of, and protect the cultural resources located within the monument.

To ensure that authorized agricultural uses of the monument by private interests are carried out in a manner that minimizes adverse impacts on monument resources.

B. Operations

To optimize the efficiency of management through provision of appropriate staff and environmentally compatible facilities for administration and operations in the monument.

C. Land Protection

To provide for the preservation of the resources of the monument (in particular its fossils and geologic formations), to provide public access, and to protect scenic landscapes.

D. Visitor Activities

To accommodate visitor use and enjoyment of the monument by providing appropriate facilities and programs that permit a diversity of visitor experiences without impairing the perpetuation of monument resources.

To foster an understanding and appreciation of the paleontological, geological, climatological and ecological evolution of the monument and region, as recorded in the strata of the central and upper John Day River Basin.

To foster an understanding and appreciation of the biological, cultural and other resources of the monument as well.

E. Cooperation

To promote and perpetuate compatible use of the resources within the monument and on adjacent lands through cooperation in planning and management activities with the Bureau of Land Management; the Oregon Museum of Science and Industry; and other governmental agencies, organizations and public interests.

To maintain ties with select universities, professional organizations, and other institutions to build upon present knowledge of the resources of the monument and to facilitate the public's understanding and appreciation of these resources.

To work closely with local communities and the State of Oregon in promoting public interest and visitation to the monument.