AN ABSTRACT OF THE THESIS OF

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Cultural resource inventories have identified 205 individual sites on public land along the Lower Salmon River, Idaho. These sites represent a rich and diverse record of the human occupation and utilization of the river canyon during the past 10,000 years. Each of these 205 sites contains its own unique record of human activity, and as a group form a significant historic district.

Each cultural resource site has been damaged to some degree by natural and/or human sources of deterioration. The degree of damage from modern human use of the area is accelerating. Thus, there is an increasing challenge to protect the unique and varied cultural resources as well as provide outdoor recreation users the opportunity to observe and understand the rich archeological value along the river.

Through an intensive cultural resource management program, the Bureau of Land Management can provide the protection necessary to prevent further loss of the historic values present on public land along the Lower Salmon River. The Lower Salmon River Cultural Resource Management Plan outlines short-term as well as long-term management actions to achieve the appropriate level of protection.

Lower Salmon River
Cultural Resource Management Plan

by

David A. Sisson

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Preface

The evolution of this document began with a need to develop a management framework to provide short-term as well as long-term management of cultural resources along the Lower Salmon River. The assumption has been made that these cultural resources represent the last 10,000 years of cultural development in the region. The Lower Salmon River is the only remaining portion of the region that has not been innudated by water from the development of dams and the majority of the area is in Federal ownership thus allowing protection of cultural resources.

The author began to realize when searching the literature and contacting other professionals that they had encountered the same problem - there was no management framework established that would assist Federal agencies in the management of the cultural resource data base. Therefore, to fill a void in an area of cultural resource management that is extremely important, but on which there is no information, I developed a management framework system for cultural resources. The management system has been prepared for a specific area, the Lower Salmon River, but the methodology in developing such a management system can be and is now being incorporated by other agencies to develop a systematic method to manage cultural resources.

The initial step in the development of the document was to identify problems in the management area. This is often termed issue identification in the Bureau of Land Management. An accurate idea of the problems must be delineated early in the process to adequately plan for their solution. After the problems are identified then one must identify the goals of the management plan, possible solutions to the problems, then select realistic solutions that are viable in the situation that one is working. To accomplish these solutions one must design an implementation schedule that is realistic in view of available funding. One pitfall that is characteristic in other

resource management plans is the failure to take available funding into account. Failure to consider current available or future projected funding and to plan accordingly within the plan will virtually render the document useless.

Manangement personnel were involved from the initial steps to the final completion of the document. Management personnel included the Area Manager, District Manager, and State Director. All these managers were taken into the field and shown specific problems with cultural resource sites before the actual document was prepared. After an outline and time schedule was prepared it was reviewed with the Area Manager and District Manager and thier involvement was maintained throughout the development of the entire document. Other personnel included throughout the entire process were the Bureau of Land Management District Archeologist, the Bureau of Land Management Idaho State Office Archeologist, the Coeur d'Alene District resource staff, and the Cottonwood Resource Area staff. Information was obtained from all these individuals and incorporated into the document. Each staff person was then asked to review an early draft of the document to ensure that the information was accurately represented in the document.

Input was also obtained from outside the Bureau of Land Management. The professional archeological community, the Nez Perce Tribe, and recreation users were contacted and asked for input into the development of the document and were also asked to review an early draft to ensure that the information they provided was accurately represented in the document.

Each of these groups was carefully analyzed to determined what their needs were before they were contacted. Representatives of each of these groups were taken out in the field before the development of the document to show them specific problems with cultural resource sites. Each group or individual required a different approach depending upon their individual needs. Involving such a wide

variety of groups and individuals made this a multidisciplinary document and aided in developing a useful document not only for the manager but also for the archeologist.

One problem that I've observed in the development of other resource management plans are the commitments made to outside groups which may prove to be very difficult or impossible to defend once a review of the document begins within the Federal agency. This can lessen the credibility of the document to the outside groups if the commitments that the preparer has made to the groups are not followed and it may lessen the credibility of the document internally if a major confrontation occurs while attempting to defend one's commitments to the outside groups. This problem was avoided while developing this document.

Not only does the management plan form a framework for the management of cultural resources along the Lower Salmon River but it also is a contribution to knowledge in Anthropology. Before the preparation of this document, no cultural resource information in the Lower Salmon River area had ever been compiled in one document. Inventories and excavations over the past 20 years had no apparent direction and the information had never been systhesized. This information now forms the building block for research in this area and makes previously unattainable information available to future researchers.

The reader will notice that the document is prepared in a format so as to be easily understood by management personnel of Federal agencies. Management personnel have little or no background in cultural resource management and this has therefore necessitated very concise statements in some instances. To be a viable document that can be used by the Federal manager it must be easily understood and organized in such a manner that the document can be used in a quick and effecient manner. One must remember that in order for this document to be implemented it has to be in a similar format of

other agency documents so that even a new manager transferred into the Federal office can understand the long-term goals and framework of the management system.

Lower Salmon River Cultural Resource Management Plan

CHAPTER I - INTRODUCTION

Background

The management area included within the Lower Salmon River Cultural Resource Management Plan begins near the confluence of French Creek with the Salmon River about 20 miles east of Riggins, Idaho, and extends for 105 river miles to the confluence of the Salmon River with the Snake River. The management area has been divided into two sections (A and B) because of the difference in land ownership patterns and accessibility. Both Sections A and B of the management area are noted in Figure 1.

Section A includes small scattered parcels of public land along the river from French Creek to the Hammer Creek Recreation Site near White Bird, 54 river miles. The majority of Section A is in private ownership. There is good road access from U.S. Highway 95 or from a gravelled county road adjacent to at least one side of the river throughout this section.

Section B includes a one-half mile corridor of public land along the river from the Hammer Creek Recreation Site to the confluence with the Snake River, 51 river miles. There are only a few scattered parcels of private land adjoining the river in this section. However, most of the upper elevations of the canyon are in private ownership. Public access in Section B is limited to a paved and gravelled county road along Graves Creek[1], an unimproved road along Eagle Creek, and to boat access.

[1] Graves Creek is the local colloquial reference to this drainage. Rock Creek is the name indicated on U.S.G.S. topographic maps with Graves Creek as a tributary to Rock Creek.

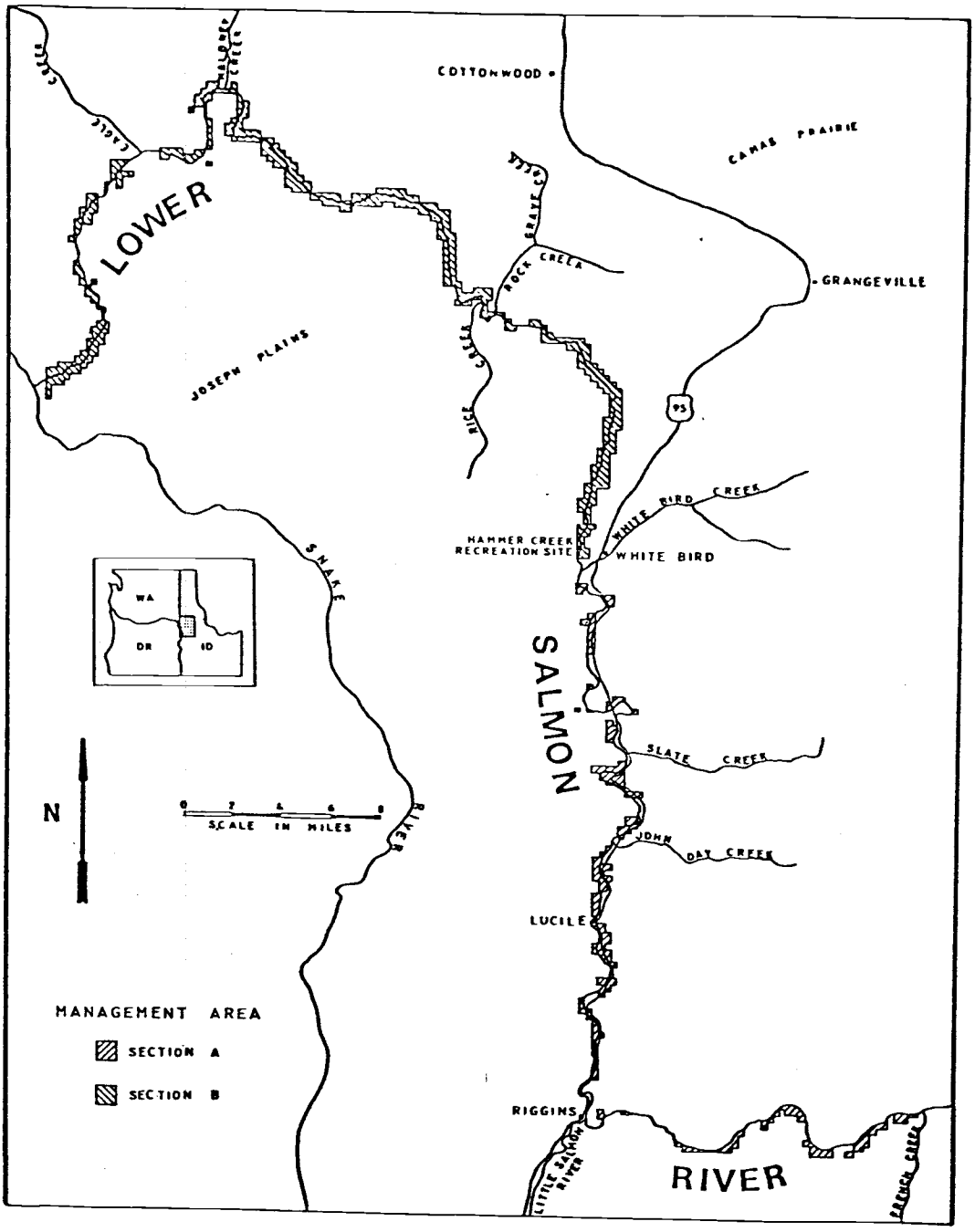


Figure 1. Management areas - Sections A and B.

Bureau of Land Management policy is that public lands be managed to protect and make appropriate use of cultural resources. This Bureau of Land Management policy is founded in several laws and regulations. The Federal Land Policy and Management Act of 1976 (P.L. 94-579) specifically directed the Bureau of Land Management to manage public lands on the basis of multiple use, and in a manner that will "...protect the quality of scientific, ...historical, ...environmental, ...and archeological values; that where appropriate, will preserve and protect certain public lands in their natural condition ...." The purpose of the Archeological Resources Protection Act of 1979 (P.L. 96-95) "was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands..., and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals...." The National Historic Preservation Act of 1966 (P.L. 89-665), as amended, stated that the spirit and direction of the Nation are founded upon and reflected in its historic past. Also, historic resources should be preserved as a living part of our community life and development in order to give a sense of direction to the American people. The National Environmental Policy Act of 1969 (P.L. 91-190) directed Federal agencies to "preserve important historic, cultural, and natural aspects of our national heritage". The enactment of P.L. 95-341, American Indian Religious Freedom, directs Federal agencies "to evaluate their policies and procedures in consultation with native traditional religious leaders in order to determine appropriate changes necessary to protect and preserve Native American religious cultural rights and practices."

The Chief Joseph Management Framework Plan prepared by the Bureau of Land Management identified the importance of the cultural resources along the Lower Salmon River. The management framework plan is a land use plan for public lands which provide a set of goals, objectives, and constraints for a specific planning area to

guide the development of detailed plans for the management of each resource. The Lower Salmon River was recognized as possibly being eligible for nomination to the National Register of Historic Places and should be managed accordingly.

Cultural resource inventories have identified 205 cultural sites on public land. The Bureau of Land Management recognizes the significance of these sites and that each site has been adversely impacted by either natural or human sources of deterioration. The first step in protecting these resources was the development of the Cultural Resource Inventory and Interim Protection Plan for the Lower Salmon River in 1981. Objectives of the interim plan were to compile all the existing cultural resource inventory data, identify sources of deterioration affecting the sites, identify technically suitable protection measures, outline interim protection measures to protect values until a management plan was implemented, and provide data for the Snowhole Wilderness Study Area. During the preparation and implementation of the interim plan the Bureau of Land Management involved the Idaho State Historic Preservation Office, Nez Perce Tribe, professional archeologists, historians, and the interested public. The work conducted in 1981 and 1982 under the interim plan has met these objectives and has provided additional data to prepare the Cultural Resource Management Plan.

Cultural Resource Management Objectives

The Cultural Resource Management Plan will provide long-term management direction necessary for the proper protection and utilization of the cultural resources along the Lower Salmon River. Five specific objectives have been identified to achieve this goal: monitoring, administrative and physical measures, inventory, consultation, and utilization.

Monitoring must provide for continued and regular examination of the condition of individual sites and the sources of deterioration

affecting them. An active monitoring plan will provide data necessary to update specific management actions and provide a basis for the flexability necessary for long-term management. Through the monitoring plan, sources of deterioration can be documented and action taken before extensive damage has occurred. The monitoring will also reduce the risk of implementing actions which are not necessary.

There are numerous administrative and physical measures which are available for the management of cultural resources. The description and selection of administrative and physical protection measures that are technically suitable for use along the Lower Salmon River is critical.

An on-going cultural resource inventory and archival research program must be maintained. The inventory program must allow for the identification of currently unknown sites and for further definition of the components of the known sites. This information is required to determine temporal, functional and ethnic characteristics of the site. The data generated from inventory studies will be used for scientific and interpretive purposes. Settlement pattern analysis will assist in the development of this objective.

Another factor necessary for long-term management is continued consultation with interested individuals or groups including: the Nez Perce Tribe, professional archeologists and historians, other state and Federal agencies, recreational users, and the general public. This consultation will allow the Bureau of Land Management to recognize changes in public attitudes concerning cultural resources and measure the effectiveness of the management activities.

A factor in the significance of the cultural resources along the Lower Salmon River is their value for scientific study and recreational educational activities. The scientific and educational

value of the cultural resources should be defined and actions designed for the appropriate use of these sites.

Existing Management Situation

A factor in the development of the Cultural Resource Management Plan has been the consideration of other resource uses and the possible constraints or conflicts between these uses and management of the cultural resources. The following is a brief discussion of other resource use of the management area.

Presently there are 25 grazing allotments in Section B and 18 grazing allotments in Section A which authorize approximately 1,370 animal unit months in Section B and 535 animal unit months in Section A. Generally the season of use is from fall to spring. Six allotment manangement plans are proposed for the management area in the next five years.

There are two placer mining operations being conducted intermittently on public lands within Section A of the management area. Both operations are related to mining claims which were located under the General Mining Law of 1872 prior to the 1/4 mile protective withdrawal in 1968. The operation in Section 11, T. 25 N., R. 1 E., is operating under an approved plan of operations required by the Dredge and Placer Mining Protection Act, administered by the Idaho Department of Lands, and the Surface Management Regulations 43 CFR 3809, administered by the Bureau of Land Management. The operation in Section 26, T. 26 N., R. 1 E., has an approved plan required by the Surface Management Regulations 43 CFR 3809.

Unauthorized occupancy in the management area has historically been a significant problem and still persists. In those cases prior to 1978 where unauthorized use was a recurring problem, the structures were destroyed by burning. Some of the occupancy trespass problems

were solved by issuing a long term special land use permit or lease.

Primary use of the river centers around recreational activities. Whitewater boating, camping, viewing the scenery, viewing historical and archeological sites, hiking, and fishing are the most popular recreational activities according to studies conducted in 1979 and 1981 by the USDA-North Central Forest Experiment Station (1980a, 1982). Based on the 1981 data the interest in viewing historical and archeological sites increased from the 1979 study.

Float boating is the most popular method of achieving the whitewater experience. Jet boats also use the river to a much lesser extent but are usually the most common mode of transportation during the fall hunting and fishing season. Day use of the river is concentrated along those areas with road access or between areas that can be floated in one day.

Total number of user days has substantially increased at a rate of about 20 percent annually (USDI 1981). About 85 percent of the float visitors come from 4 western states which are Washington, Oregon, California and Idaho in descending order of frequency (USDA 1980a, 1982).

A River Recreation Management Plan has been prepared for the area within Section B. An estimated carrying capacity based on number of available campsites, number of encounters between groups, and the capacity of the launch and take-out facilities has been set and is expected to be reached in 1987.

The majority of the Section B corridor is being managed for the semi-primitive motorized recreation opportunity class but there are several portions of Section B that are classified in the semi-primitive non-motorized and roaded natural recreation opportunity classes. Section A is classified in the rural recreation oppor-

tunity class. Both Section A and B are managed for visual resource management Class II. Management guidelines for visual resource management are discussed in Bureau of Land Management Manual 8400.

The Snowhole Wilderness Study Area is within Section B. It has been recommended for non-wilderness management with a recreation emphasis under the semi-primitive motorized recreation opportunity classification. The Snowhole Wilderness Study Area is currently managed under visual resource management Class I and would be converted to visual resource management Class II if managed under the semi-primitive motorized recreation opportunity class.

All public land partially or wholly within one-quarter mile of the Salmon River was withdrawn for potential addition to the Wild and Scenic Rivers System by the Wild and Scenic Rivers Act of 1968 (P.L. 90-542). Congressional action is still pending on designation of the Lower Salmon River. Section B has been recommended for inclusion as a Scenic River and Section A has been recommended for inclusion as a Recreation River. The Central Idaho Wilderness Act of 1980 (P.L. 96-312) restricted licensing of dams, water conduits, reservoirs, powerhouses, transmission lines or other project work in Section B.

There are both plant and wildlife species that are recommended for inclusion or are included on sensitive, threatened, or endangered species lists. These plant and wildlife species are located in the management area or can be found in the canyon environment in this region. Two aquatic habitat management plans will be prepared in the next five years. One will be prepared for Section A and the other for Section B. Two terrestrial habitat management plans are proposed; one for Section A and one for Section B.

CHAPTER II - NATURAL ENVIRONMENT

Geology

The Lower Salmon River is situated near the intersection of the Columbia Plateau and the Northern Rocky Mountain physiographic provinces. Wagner (1945) has conducted limited geologic mapping in the area between the Salmon and Snake Rivers.

Columbia River Basalt is the predominant rock type. The Basalts are Miocene (10 million to 30 million years) in age. The Columbia River Basalts include some interbedded sediments. The other predominate rock type is the Seven Devils Volcanics. This rock type is composed of a metamorphosed complex of flows and pyroclastics.

The eastern portion of the management area is dominated by rocks of the Cretaceous Idaho Batholith (90 million to 105 million years old). The Idaho Batholith dominates central and north-central Idaho. The western border of the Batholith is very complex with large areas of granite type rock, metamorphosed sediments, and small outlying intrusions including numerous dikes and sills.

The southwestern portion of the management area includes some of the most complex geology in the northwest. The rocks include a metamorphosed series of volcanic and sedimentary rocks. The geologic structure is very complex with many units overturned and intensely deformed. Recently it was proposed that the rocks in this area were originally part of the oceanic crust and that this area may represent an extinct subduction zone, or a zone where the oceanic crust was subducted underneath the continental crust.

Soils

The management area consists of several major soil associations and complexes (Barker 1976, 1982). The major soil series are the

Bluesprin, Klickson, Tannahill, and Lickskillet. The Bluesprin soil is shallow and occupies south facing slopes while the Klickson soil occupies north facing slopes and is very deep. The Tannahill soil is deep and well drained. The Lick-skillet soil is shallow and well drained. Both the Tannahill and Lickskillet soils are found on south facing slopes. All four major soil series are formed from a mix of loess, colluvium and residuum from igneous rock, primarily basalt.

Rock outcrop dominates many parts of the management area and consists of 90 percent rock primarily from Columbia River Basalt, Seven Devils Volcanics, andesite, or granitic related rock. Rock outcrops combine with all the major soil series to form complexes throughout the canyon.

Geomorphology

Landforms in the canyon are quite diverse. Horton (1972) has proposed eight different transverse zones of stratification based upon vegetation classification, ecosystem interactions, character of river environs, impacts and geology. These zones very closely resemble geomorphic divisions in the management area.

The water, tidal, and shoreline zones encompass those areas occupied by water at low-flow to the area immediately above high water line. The tidal zone includes the active sand and gravel bars. The sandy beaches are flooded on a yearly basis. The nature of these zones depends upon the annual flucuation of the river.

The other landforms along the river do not substantially change on an annual basis. The majority of cultural sites are located on the Salmon River terraces and tributary outwash fans. The sequence of river terraces are located above normal high water and occur some

distance above the present river. The number and chronological sequence of terraces along the Salmon River has not been studied.

Other landforms in the canyon can be divided into the following general categories: toeslopes, sideslopes and outcrop scarps. Toeslopes are at the base of outcrop scarps and sideslopes. The toeslope is created by colluvial deposition. Sideslopes are steeply sloping sidewalls of the canyon and include spur ridges and tributary slopes. Outcrop scarps consist of exposed bedrock. The outcrop scarps can rise directly from the river or occur at any elevation and makes up much of the canyon topography.

The river canyon is a mosaic of these landforms. The various landforms are discontinuous and are often abruptly interrupted by the other landforms which gives the Salmon River its own unique character. Many of the landforms immediately adjacent to the river which were once probably examples of different stages of terrace building have been dramatically altered by hydraulic mining activities beginning in 1860.

Climate

The climate of the area is associated with the southerly and easterly drift of weather systems that develop in the northern and central Pacific Ocean. In the winter, storms pass over the region causing a distinctly wet climate. During summer, however, storms pass farther north causing a relatively dry climate. In general, the eastward movement of the marine air keeps temperatures moderate except when continental high pressures reverse the general flow to a westerly direction. This brings periods of hot dry air in the summer and cold weather in the winter (USDI 1980).

The information gathered from the Riggins weather station is indicative of the river canyon. Data generated from the Grangeville station reflects the prairie adjacent to the canyon.

[illegible] per second (cfs). The maximum and minimum momentary flows were 130,000 cfs and 1,580 cfs, respectively. The mean annual peak flow is 67,000 cfs.

The average yearly variation in temperature between Riggins and Grangeville is eight degrees (all degrees are in Fahrenheit) (Barker 1982). The average daily maximum for July is 83 degrees in Grangeville and 94 degrees in Riggins. The Riggins January average daily minimum is 28 degrees and the Grangeville January average daily minimum is 20 degrees.

The average yearly precipitation level in Grangeville is 24 inches and in Riggins, 17 inches. The average yearly accumulative snowfall level in Grangeville is 57 inches and 8 inches in Riggins. Precipitation in the summer falls primarily as showers with occasional thunderstorms. In winter, precipitation usually occurs as snow in the higher elevations with the snowline occasionally descending to the bottom of the canyon.

Water Resource

Regimen or timing of runoff throughout the year is strongly influenced by meteorologic conditions and physiographic characteristics of the land. Peak flows for an individual subdrainage may vary from mid-April to mid-July depending on location, pattern, cover, aspect, elevation and weather trends for that particular year. Unless there is a large rate occurrence storm on a drainage or a period of prolonged high temperature in early spring, the annual peak flow can be expected to occur in May or June during snowmelt runoff. In September all of the streams are at their lowest flows. Beginning in March warming trends cause snowmelt and stream flows to begin rising dramatically.

The mean annual flow for the study area measured at the White Bird station, is 10,690 cubic feet per second (cfs). The maximum and minimum momentary flows were 130,000 cfs and 1,580 cfs, respectively. The mean annual peak flow is 67,000 cfs.

Snowpack and snowmelt are significant regulators of streamflow. Peak flow frequencies are closely related to the timing of snowmelt. Short duration, localized, intense rainstorms do produce some minor flow changes on the small tributary streams but have little effect on the flow of the main river. Past records show that most recorded annual peak flows occurred during the time when there was snow cover on a good portion of the watershed.

The presence of the snowpack serves to buffer the spring rainstorms by absorbing most of the precipitation and slowly releasing the water as the snowline moves up to the higher elevations. Rain-on-snow conditions can produce extreme runoff problems; however, the situation usually varies due to variations in snow depth and water content of the snowpack.

Vegetation

The majority of the river canyon lies in a grassland zone that is an extension of the Pacific bunchgrass formation. The natural flora is dominated by bunchgrass (Agropyron spicatum and Festuca idahoensis). Vegetation in the management area has been modified from the natural flora and there are few relic areas of the natural vegetation remaining. Forested land is scarce throughout most of the canyon although some ponderosa pine (Pinus ponderosa) and Douglas fir (Pseudotsuga menziesii) can be found on north facing slopes or sideslopes of the canyon. Hackberry (Celtis douglasii) trees are usually found on the terraces adjacent to the river. The eastern end of Section A is slightly different in that the vegetation is dominated by ponderosa pine on southern exposures and Douglas fir on northerly exposures.

One Federally classified endangered plant species, Macfarlane's four o'clock (Mirabilis macfarlanei), is known to occur in Section A of the management area. The following recommended threatened

plant species are found in the management area; Halimolobos perplexa var. perplexa, Haplopappus liatriformis, Lomatium rollinsii, Penstemon elegantulus and Silene spaldingii. Aster jessicae may also occur and it has been recommended for the endangered species list (Craig Johnson, personal communication 1983).

Wildlife

The Salmon River canyon contains valuable yearlong and seasonal habitat for a wide variety of species. Common big game animals found in the area are mule deer (Odocoileus hemionus), white-tailed deer (Odocoileus virginianus), elk (Cervus elaphus), black bear (Ursus americanus), and to a lesser extent mountain lion (Felis concolor). Mountain sheep (Ovis canadensis) historically utilized the area and have been reintroduced in a few locales.

Bird species are as varied as the big game species. Raptors are numerous in the area and include the red-tailed hawk (Buteo jamaicensus), kestrel (Falco sparverius) and golden eagle (Aguila chrysaetos). Other common birds are the chukar partridge (Alectoris graeca), Hungarian partridge (Perdix perdix), Canadian geese (Branta candensis), and a variety of ducks. The chukar partridge was introduced to the management area between 1953 and 1958 (Oelklaus 1976). The Hungarian partridge moved into the management area from Oregon and Washington where it was introduced about 1900 (Burleigh 1971).

Anadromous and resident fish populations are found in the Salmon River. The primary anadromous fish species include steelhead trout (Salmo gairdneri), chinook salmon (Oncorhynchus tshawytscha) and to a lesser extent sockeye salmon (Oncorhynchus nerka). Common resident fish speices include smallmouth bass (Micropterus dolomieui), squawfish (Ptychocheilus oregonensis), channel catfish (Ictalurus punctatus), rainbow trout (Salmo gairdneri), whitefish (Prosopium

williamsoni), Dolly Varden (Salvelinus malma), and cutthroat trout (Salmo clarki).

The endangered Bald Eagle, (Haliaeetus leucocephalus), is occasionally sighted in the winter. Other wildlife species found in the management area that are classified as sensitive are the white sturgeon, (Acipenser transmontanus); river otter, (Lutra canadensis); Columbia tiger beetle, (Cicindela columbica); bobcat (Felis rufus); osprey (Pandion haliaetus); and mountain quail (Oreortyx pictus) (Craig Johnson, personal communication 1983).

CHAPTER III - CULTURE HISTORY

Prehistory

A brief culture history is presented to provide background data for both management and cultural resource specialists. Information presented in this section will aid in evaluating and determining the appropriate level of protection measures. The culture history presented should not be considered a complete review of all the literature or opposing theories on the cultural development of the area. The purpose is to present a general outline of events and information that pertains directly to the Lower Salmon River, or in those cases where data is lacking, can be inferred from surrounding areas. Locations referred to in this chapter or others are indicated in Figure 2.

Ames (n.d.) has already presented an in depth overview of the archeological data for the Clearwater River and the adjacent area. The earliest known cultural remains from the general area are from the recently excavated Hatwai site (10NP143), five miles east of Lewiston, Idaho. The oldest component (Hatwai I) is dated to 10,800 - 9,800 Before Present (B.P.) (Ames, Green and Pfoertner 1980). The component is stylistically similar to the Windust phase presented by Leonhardy and Rice (1970).

Coopers Ferry (10IH1312) located in the management area produced artifacts very similiar to Windust assemblages from the lower Snake River. The Windust phase ranges from 11,000 - 8,500 B.P. The Weis Rockshelter (10IH66), located four miles north of the Salmon River along Graves Creek, has a cultural chronology beginning approximately 7,400 B.P. Butler (1962) believes that Weis Rockshelter is marginal to the southern Plateau. There exists a time difference of approximately 3,000 years between very similar phases in the southern Plateau and Weis Rockshelter which is only 60 miles from the Lewiston basin. The chronology for Weis Rockshelter has been re-evaluated

Figure 2.
Geographic locations discussed in the management plan

LEGEND

1. Hatwai Site
2. Cooper's Ferry
3. Weis Rockshelter
4. Alpowa
5. Sherwins Bar
6. Victor High Bar
7. Wapshilla Bar
8. Horseshoe Bend
9. Doumecq Bar
10. Cooper's Bar
11. American Bar
12. Long Bar
13. Proposed Crevice Dam Site
14. Proposed Freedom Dam Site
15. Proposed Lower Canyon Dam Site

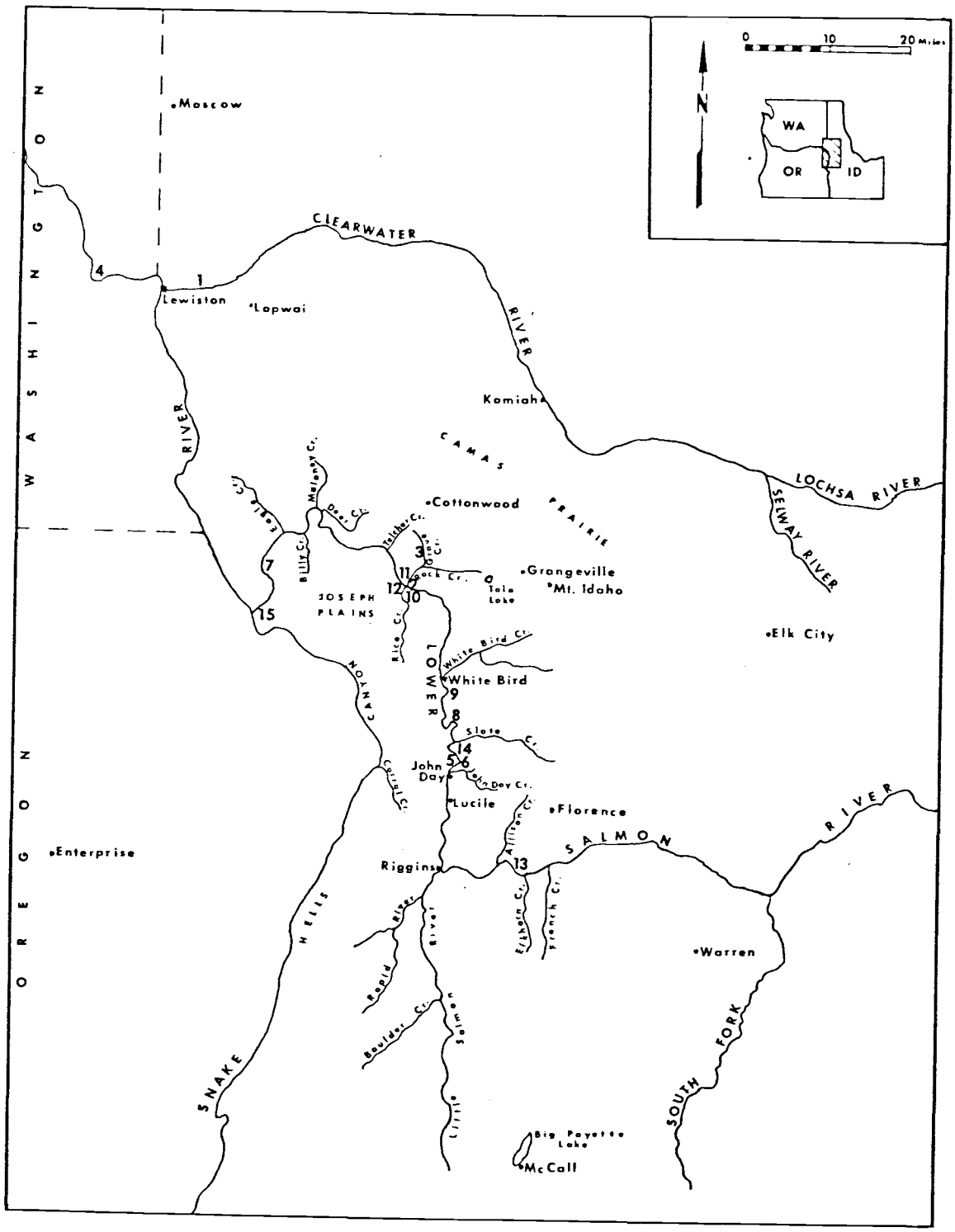


Figure 2. Geographic locations discussed in the management plan.

by Ruebelmann (1973, 1978). Ruebelmann suggests that Weis Rockshelter is not marginal to the Plateau and that the cultural chronology presented by Leonhardy and Rice (1970) may be utilized for Weis Rockshelter.

Whether the Weis Rockshelter chronology is analogous with the Snake River chronology is an important question which will have to be reviewed in the future. There is also a cultural chronology that has been presented for Hells Canyon by Pavesic (1971). It is not within the scope of the Cultural Resource Management Plan to discuss this question, therefore, only one chronology will be described, that of the Snake River. For a discussion of the various other chronologies refer to Ruebelmann (1973) and Ames (n.d.).

Leonhardy and Rice (1970) proposed a cultural chronology for the Snake River located in the southern Columbia Plateau. This chronology has been revised by Leonhardy (1976), Leonhardy and Rice (1980), and Yent (1976). Ames, Green and Pfoertner (1980) have described the cultural components from Hatwai. The two cultural sequences are compared in Figure 3. The southern Columbia Plateau sequence is described here to provide an idea of the prehistoric development in this region.

The Windust phase has been established between 11,000 - 8,500 B.P. The Windust assemblage may be related to other assemblages over a wide area suggesting a sharing of stylistic and technological information. The economic cycle appears to have been centered on large mammals, molluscs, and plant resources (Rice 1972). Apparently there were no permanent winter villages or groupings of people and settlements were associated with a riverine environment.

The Cascade phase has been identified as ranging from 8,500 - 4,500 B.P. The Cascade phase existed during a major climatic change within the region which is referred to as the Altithermal. The

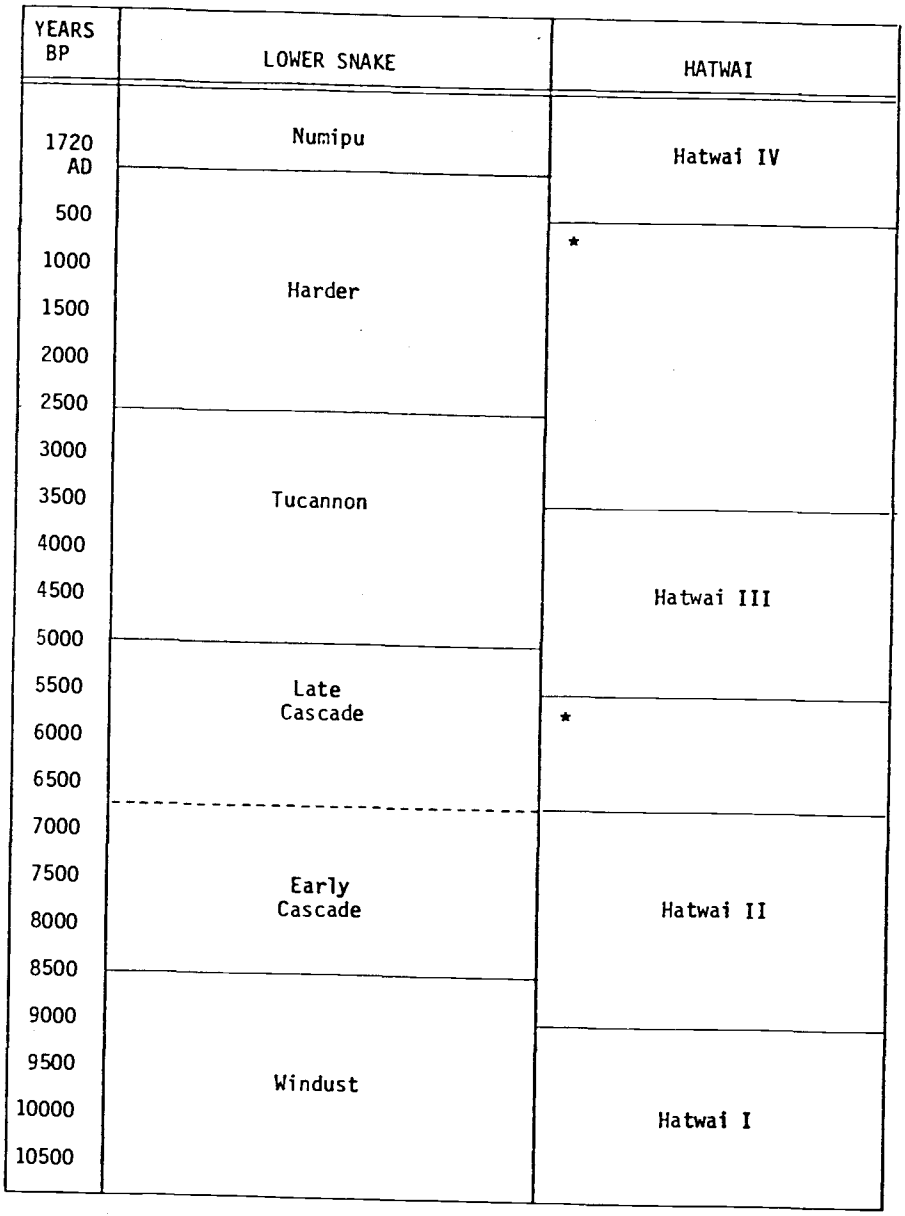


Figure 3. Lower Snake River cultural typology and Hatwai cultural sequences.

climate during the Altithermal was drier and warmer than that of the present (Antevs 1948). Bense (1972) has suggested no major change in the cultural stability of the plateau inhabitants can be detected from the artifacts collected below and above Mazama volcanic ash deposits. Mt. Mazama (Crater Lake, Oregon) erupted about 6,700 B.P.

The Cascade phase was characterized by a dependence on game and plant resources as well as fishing. The settlement pattern is reflected in the small camps found along the rivers and mountains. A late Cascade component was found in association with a semi-subterranean house at Alpowa which could indicate the beginnings of semipermanent villages (Brauner 1976). The artifact assemblage is typified by a lanceolate point and later by the introduction of a side-notched point. The Cascade phase is felt to be an evolutionary development from the Windust phase. Ames and Marshall (1980-81) have suggested that there may have been an increasing emphasis on plant resources because of an increasing number of grinding tools.

The Tucannon phase follows the Cascade phase. This post-Altithermal adaptation ranges from 4,500 - 2,500 B.P. The climate was cooler and more moist than the Altithermal. This phase was somewhat different than the previous phase and may not be a direct evolutionary development.

A date of 4,300 B.P. has been suggested for permanent villages in the Lewiston basin (Ames and Marshall 1980-81). Population shifts probably occurred at this time. Brauner (1976) has suggested that there was a decline in the salmon population and goes on to say:

> If salmon populations were decimated...the inevitable consequences for human populations adapted to the resource was major changes in resource scheduling. The need for protein substitutes and a storeable winter food supply would require increased and more efficient utilization of terrestrial resources. Procurement activities, out of necessity, focused on upland habitats with a resultant

> de-emphasis in riverine exploitation. Restructuring of the subsistence pattern may be dramatically reflected in settlement pattern (Brauner 1976:308).

If there was a shift in the settlement pattern, one would also expect to find more upland sites with a Tucannon artifact assemblage. Ames and Marshall (1980-81) have suggested that the shift in population was a result of an intensification of the utilization of root crops.

The Harder phase, 2,500 B.P. - A.D. 1720 was characterized by a heavy dependence upon salmon. The Harder phase extends to the time when the horse was introduced to the Nez Perce Indians. The Harder phase was characterized by the continued existence of permanent winter villages plus the increased reliance on salmon as a major food resource. Root crops as well as upland game were also utilized.

The last phase of Snake River cultural chronology is the Numipu phase. The Numipu phase has been defined as "...a putative phase intended to represent the archeological manifestations of Ethnographic Indian culture from the time when the horse was introduced, shortly after 1700 A.D., to the time when the Indians were completely relegated to reservations and had essentially ceased to exist as autonomous societies" (Leonhardy and Rice 1970:20). This phase witnessed an increased dependence upon Euro-American goods by some of the Nez Perce bands.

Ethnography

During the ethnographic period the Nez Perce were in contact with the Shoshone to the south. Generally, the Lower Salmon River was within the territory controlled by the ethnographic Nez Perce although the Shoshone may have utilized the river prior to the Nez Perce.

The annual cycle of the Nez Perce reflected the subsistence economy. In the early and late spring, the Nez Perce were found exploiting the drainage systems of the tributaries leading into the major river systems, i.e., Salmon, Snake, and Clearwater Rivers. Male groups were utilizing nonanadromous fish while female groups were collecting early spring plants (Marshall 1977).

A shift from a canyon environment to a plateau setting occurred around May since the root supplies were ready to be harvested. The larger the concentrations of roots, the larger the number of people that could be supported. In August, the large groups split into smaller groups that went into the surrounding mountains. The smaller groups would have been found in hunting locales. People began moving back down to the winter villages approximately in mid-October to prepare for the winter.

The village grouping became dominant when the anadromous fish runs arrived in an effort to procure salmon to be dried and stored for winter use. This activity persisted until May (Marshall 1977).

A local example of the exploitation of resources may be observed in a discussion by Mrs. McLaughlin with Butler (1962) in which she states that before the start of the spring salmon runs, the Nez Perce men would hunt deer on Joseph Plains, return for the salmon run in Rocky Canyon, and then depart for Joseph Plains after the salmon run. The women were said to have exploited camas, berries, and other flora from Rocky Canyon while waiting for the salmon runs.

The diet of the Nez Perce in early historic times is believed to have consisted of approximately 50 percent anadromous fish, 25-40 percent plant foods and 10-25 percent game. Species lists of food items utilized by the Nez Perce have been prepared by Marshall (1977).

Salmon (Oncorhynchus spp.) was the most important item in the Nez Perce diet. Salmon were harvested with fish traps, weirs, dip-nets, spears or hooks (Spinden 1908). The use of traps and weirs required cooperation of an entire village (Walker 1967). Marshall (1977) estimated that the Nez Perce utilized approximately two million pounds of salmon per year. Other fish such as the chisel-mouth, (Acrocheilus alutaceus), Dolly Varden, sucker (Catostomus spp.), lamprey eel (Entosphenus tridentatus), whitefish, cutthroat trout, steelhead, and sturgeon were also exploited.

Cous (Lomatium cous) and Camas (Camassia quamash) were the two most important root crops. Cous can be found on the brows of steep hills in dry rocky soil. Cous was harvested in April and May and was eaten raw or cooked. Spinden (1908) states that cous probably had equal importance to that of camas. Camas was found in moist upland meadows and was harvested in June and July as well as in the fall. Camas could be eaten raw or cooked. Camas was reportedly not baked in the areas where it was harvested but was instead taken back to the winter village site to baking pits and caches (Chalfant 1974).

Game formed approximately one-fourth of the Nez Perce diet. Mule deer (Odocoileus hemionus), white-tailed deer (Odocoileus virginianus), and elk (Cervus elaphus) were of primary importance. Antelope (Antilocapra americana), mountain sheep (Ovis canadensis), and Bison (Bison bison) were also exploited.

Game was obtained by snares, bow and arrow, spears, game drives, deadfall, and decoys which consisted of a stuffed game head and cape. Elk whistles were also used when hunting elk (Spinden 1908). Hunting was done individually as well as in groups. Winter deer hunts were conducted near the winter villages, usually in organized groups (Chalfant 1974).

Bison was procured by the aboriginal populations over the last several thousand years. The introduction of the horse in the mid-

eighteenth century allowed the aboriginal populations to expand hunting expeditions into the Plains region.

Settlement pattern may be generalized as a system of permanent winter villages and temporary summer camps. Walker (1968:9-10) described a village "as the smallest customarily associated group of persons tending to be found on a seasonal basis in a given named geographical locale they were thought to own. Ownership as used here refers not to rights of usufruct but to permanent vested rights of ownership regardless of temporary absence, use or disuse". Walker goes on to describe a camp "as the smallest customarily associated group of persons tending to be found on a seasonal basis in a given geographical locale over which they were though (sic) to possess usufruct rights only". Therefore, the difference between village and camp is that of ownership. A village had rights of ownership regardless of a temporary absence whereas a camp had rights only as long as the camp group remained in the area. The village size ranged between 10-75 people with the mean near 35. A village was usually comprised of two extended families.

Camps, as opposed to villages, were characteristic of early fall, summer, and spring habitation sites. The heads of larger tributary streams or areas near small streams or springs were the areas chosen for camps (Schwede 1966).

Winter village locations are found at lower elevations along major streams such as the Salmon River. Permanent villages were never built in upland locations; whereas, temporary summer camps are usually found in such areas (Spinden 1908). Location of permanent villages in the lower elevations provided protection in the winter due to the more mild climate created by the significant change in elevation from the plateau to canyon bottom (Schwede 1966).

The White Bird band (Chalfant 1974) provides an example of the settlement pattern and subsistence economy of the Nez Perce. The

main village of the White Bird band was located in the present vicinity of the town of White Bird. There were also several other villages in the White Bird Creek vicinity; one near Slate Creek, and several located from White Bird to the confluence of the Snake and Salmon Rivers. The White Bird band occasionally wintered in the vicinity of Riggins, but this was an alternate location for the same families that lived on White Bird Creek.

The White Bird band utilized the Little Salmon River as summer hunting and fishing areas. The main catches of salmon for the White Bird band came from both the Little Salmon and the Salmon Rivers. The Little Salmon River was exploited as far south as Big Payette Lake. Boulder Creek, Rapid River, South Fork of the Salmon, and other tributaries along the Snake River were also utilized.

Some of the villages and camps identified ethnographically along the Salmon River are Tamanma, a village at the mouth of the Salmon and Snake Rivers; Nipeheme, a village at the mouth of Rock Creek; Lamtama, a village at the mouth of White Bird Creek; Ayaspa, a village at the mouth of Slate Creek; and camps located at the town of Lucile, the mouth of the Little Salmon River and the mouth of Allison Creek (Schwede 1966).

The Nez Perce had a rather extensive system of trails. Several of the trails pass through the management area. A main trail followed the river from White Bird to the confluence of the Salmon and Snake River. A branch of this trail passed over Joseph Plains from White Bird to a point about seven miles upstream from the confluence. Another major trail follows the river from White Bird to the Little Salmon River.

History

The Nez Perce had prior knowledge of some Euro-American goods before any Euro-Americans arrived in Nez Perce territory. This

prior knowledge had been gained through contact with Indians from the Columbia River who had previous dealings with fur trappers. The arrival of Lewis and Clark in 1805 was the first direct contact with Euro-Americans.

Sergeant Ordway led a portion of the Lewis and Clark party to the Salmon River in 1806. The Ordway party was believed to have traveled to the area of the confluence of the Salmon and the Snake Rivers. They returned to the main party at Kamiah with roots and salmon they had obtained from Indians along the river. The number of contacts between the Nez Perce and trappers began to increase along the borders of the Nez Perce territory not long after Lewis and Clark had returned from the Pacific and had begun their journey east (Josephy 1971).

Donald McKenzie lead a group of trappers through the Nez Perce territory in 1811. Josephy (1971) reports that the route traversed by McKenzie passed through a portion of Hell's Canyon and over to the Little Salmon River. McKenzie met the Nez Perce at the confluence of the Salmon and Little Salmon Rivers.

The Nez Perce signed the treaty of 1855 with the understanding that they would retain control of most of their aboriginal territory and that Euro-Americans would not be permitted to settle on the reservation without their permission. Gold was discovered in 1860 and this created pressure from the Euro-Americans to change the reservation boundaries. Therefore, a new government commission was appointed in 1863 to draft a new treaty. The 1863 treaty required the Nez Perce to relinquish the majority of the reservation granted under the 1855 treaty. The northern Nez Perce bands were in favor of relinquishing the land but the southern bands were opposed. The 1863 treaty was only signed by the northern bands and none of the southern bands signed. This new treaty opened up large tracts of land for mining and settlers.

In 1877 the southern Nez Perce bands were being forced onto the reservation at Lapwai according to the conditions set forth under the 1863 treaty. The southern bands finally agreed to move to the reservation and were camped near Tolo Lake before traveling to Lapwai. Several young warriors left the camp and went to the Salmon River where they killed some settlers. These events led to the Nez Perce War. The Nez Perce eventually surrendered to the U.S. military authorities in Montana. The events leading up to the war as well as the war are discussed in detail by Beal (1963), Brown (1971), and McDermott (1978).

The bars along the river were being mined in the early 1860s. Low bar placer deposits were being worked while the Elk City and Florence mining districts were at their height (Lisle and Bradley 1904).

Virtually every low bar and stream confluence have indications of historic mining activity. Wells (1961) reports that Long Bar had 75 to 100 miners utilizing rockers and sluices which obtained gold at an average of $10 a day per person in 1862. The winter of 1862-1863 witnessed an influx of 600 miners from Slate Creek down river averaging $4 to $20 per person a day. The area between White Bird and Rice Creek on the west side of the river was extensively mined prior to 1903 (Shiach 1903). Sherwins Bar is reported to have produced thousands of dollars in the 1860s and the Victor high bar, which was across the river from Sherwins Bar, was also producing well (Lisle and Bradley 1904). A store was located at the mouth of Rocky Canyon in 1861 and was owned by a Mr. Glatigny (Elsensohn 1947). D.H. Telcher homesteaded in the vicinity of what is presently called Telcher Creek in 1865 and reportedly mined along the creek (Elsensohn 1951). People are said to have been buried at the mouths of both Telcher and Graves Creek.

The Slate Creek area was established in 1861 and was a distribution point of supplies for the mines. In 1863 a census of Idaho County

showed a total of 216 people at Slate Creek and 150 people at Long Bar indicating that areas along the river were already being extensively used. The production of the placers decreased after 1864. In 1870 Chinese were permitted into the local mining districts. After about a decade, the mining population decreased again.

Chinese miners were probably present along the Salmon River at an early date. Many Chinese who first went to Elk City were not permitted to mine, so a few probably drifted to the Salmon River (Elsensohn 1970). The Chinese are reported to have mined an area from Rice Creek to Deep Creek in the 1880s to early 1900s (Elsensohn 1951).

Mining along the Salmon River was still quite extensive around the turn of the century. Wapshilla Bar, near the confluence of the Salmon and Snake Rivers, was reopened in 1903 after being mined in the mid-1880s. Seven miles of ditches and several reservoirs had been constructed in the hopes of revitalizing a once profitable mine (Lisle and Bradley 1904).

Mining was also still being pursued along other portions of the Salmon River:

> A company...is doing some work on the famous Horse Shoe bars and is preparing to install a plant for the more satisfactory handling of its auriferous gravels; the Slate Creek Mining Company...has a ditch out of Slate Creek seven miles long, with a capacity, it is claimed, of 1,600 inches. The Victor Mining Company...operates a claim between Slate Creek and John Day; P.E. Sherwin has a property above John Day Creek. The claims of the Consolidated Hydraulic Mining Company are also above the mouth of that stream, while above the mouth of Little Salmon there is but one hydraulic mine, that of William Short. Several placer miners, besides those mentioned, are operating in a small way at different points on the stream (Shiach 1903:444).

A gold dredge was also in operation in the vicinity of Doumecq Bar and was being operated by two men named Lawery and Aldrich (Lisle

and Bradley 1904). George Burgund was working a placer claim at the mouth of Rocky Canyon in 1908 (Elsensohn 1947).

Several areas that held promise of copper were being examined around 1900. The Idaho Mining and Smelting Company held some interest in land 4.5 miles northwest of White Bird. Another area of copper potential was located 6 miles northwest of White Bird and was referred to as the Rainbow Group (Shiach 1903). An area approximately two miles upriver from the confluence of the Lower Salmon and Snake Rivers also had some potential copper deposits.

Mining still continued along the Salmon River but not to the extent it had in previous years. A resumption of mining primarily due to the Depression all along the Salmon River was undertaken around the 1930s (Elsensohn 1947).

Around 1930 there were reports of rich deposits of gold and silver in formations near Lucile. The value of the ore was reported to be in the thousands of dollars but these reports were never substantiated (Elsensohn 1947).

Agriculture had its beginnings at the stations along the trails to the mining regions. The keepers of these stations grew garden crops for their own use and eventually these gardens expanded in size and were utilized to supply the needs of the miners. Lisle and Bradley (1904) report that A.C. Chapman, the first recorded farmer, lived near Mt. Idaho in 1861 and grew and sold garden crops. The Camas Prairie was reportedly first plowed in 1863 with a homemade plow, and in 1864 the first manufactured plow arrived.

The Camas Prairie was prime agricultural land and was developed first. Most of the Salmon River was not as well suited for farming development but was more appropriate for ranching activity.

The first cattle into the region probably came with the first settlers. The first stockmen in the area are believed to have been Crooks and Shumway which were said to have driven 1,000 cattle to the Camas Prairie in 1863 (Shiach 1903). The primary market for the cattle was the mining camps. The herds were driven from the range to camps where they were sold and eventually slaughtered. With the decline from the boom days of mining, the human population slowly declined. There was a shift in emphasis from mining to farming and ranching along the river. Cattle were reportedly being moved into the Billy Creek area by 1877. The stock industry was starting to grow and the Idaho County Stock Grower's Association was formed in 1885 (Lisle and Bradley 1904).

Ferrys were in use along the river at a number of locations; White Bird, Coopers Bar, Billy Creek, Landcaster (near American Bar), John Day Creek, and Shearer's (near Elkhorn Creek). Other locations also had ferries in operation for short periods of time.

By the mid-1890s and early 1900s, many areas were already settled with a system of trails and roads leading to areas of agricultural use as well as mining districts. The stage road between White Bird and Riggins was completed between 1894 and 1898 according to the General Land Office original survey plats.

Captain H. Guleke was utilizing the Salmon River in the early 1900s for transporting people as well as goods in large sweepboats. Fees were charged for his trips from near Salmon to Riggins and Lewiston. The National Geographic Society conducted a river expedition in 1935 on the Salmon River (Shenon and Reed 1936).

The first railroad survey of the Salmon River was in 1872 by Northern Pacific. The survey was conducted along the eastern side of the river and was to go from Salmon to Lewiston. This route was later abandoned because of the potential high cost of construction. In the early 1900s there was renewed interest in railroads along the river but an adequate route was never located.

A Civil Conservation Corps (CCC) camp was located near French Creek in 1933. The CCC constructed the road from Riggins to French Creek and from French Creek to near the community of Warren.

From 1920 to 1940 a road from Graves Creek to White Bird was planned and construction was begun to shorten the distance from Cottonwood to White Bird. The road was under construction as part of a Work Projects Administration project in 1939 but all work was suspended in 1940 leaving the road only partially constructed.

Another project that was planned for the Salmon River was to divert the Salmon River to the Snake River. In 1939 it was proposed to divert the river below Lucile, near the mouth of Poodle Dog Creek (exact location unknown), to the mouth of Corral Creek on the Snake River. A tunnel of approximately nine miles would have been constructed to divert the water to the Snake River which would have been used for hydroelectric power while the old riverbed was expected to yield fantastic amounts of gold (Elsensohn 1951).

CHAPTER IV - SOURCES OF THE CULTURAL RESOURCE INFORMATION

Baseline Field Reconnaissance

A variety of cultural resource work has been completed in the management area. Most reconnaissance or excavations have resulted from actions initiated by Federal agencies.

Portions of the management area were first surveyed in the late 1950s. Swanson inventoried the Salmon River for the Crevice Reservoir (1958a) and the Freedom Reservoir (1958b). The Lower Canyon Reservoir was also inventoried by Swanson (1959). The purpose of these surveys was to locate cultural resources where several dams were being planned for construction. Primarily, only major sites were recorded. Some public land was involved in these surveys, which tracts of public land examined are unknown.

The next series of inventories were undertaken to aid in developing evaluation criteria for designating rivers under the Wild and Scenic Rivers Act of 1968 (P.L. 90-542). Swanson (1970) prepared an archeological overview of the entire Salmon River drainage and Peebles (1971) prepared the historical overview for the entire Salmon River drainage. Swisher (1973) conducted on-the-ground inventories to gather cultural resource data in the area encompassing both Sections A and B. Much of the public land was examined and a number of cultural resources were recorded.

Warren and Fitzwater (1963) inventoried and tested a number of sites in the area between Slate Creek and White Bird before proposed highway construction was to commence. Burials, storage pits, and house pits were encountered during the project. Several sites located on public land were examined, but the excavation work concentrated on sites located on private lands.

Excavations were carried out in 1973 in the Eagle Creek area located in Section B. The sites excavated were 10NP107, 10NP123, 10NP124, 10NP128, and 10NP129. This project was conducted by Idaho State University Museum. The results of the testing project may be examined in the report prepared by Hill (1974).

The following is a brief description of the 1980 reconnaissance which has provided the most up-to-date baseline data. An inventory of cultural resources was initiated in Section B in 1976 and was completed in 1980. The University of Idaho was contracted by the Bureau of Land Management to inventory and nominate sites to the National Register of Historic Places. Test excavation was to be used on a limited basis to determine if sites met the eligibility requirements for the Register.

The site reconnaissance was restricted to the Bureau of Land Management managed corridor. All cultural sites previously recorded were examined and new features, condition and sources of deterioration were recorded. In addition to updating previously recorded sites, the inventory crews were also responsible for identifying previously unrecorded sites.

The primary goal of the inventory was to collect data that would provide baseline information. Based on the inventory, representative sites would be studied to indicate trends of deterioration and identify significant sources of deterioration to sites. Fluvial erosion, livestock, and recreation use were considered to be the most critical factors impacting the cultural sites. These three factors appeared to be the most significant on the benches, terraces and alluvial fans adjacent to the Salmon River and along several tributary streams. Therefore, the inventory was concentrated at these locations.

A 100 percent inventory would have been ideal but the realities of rugged terrain and limited time restricted the inventory work.

Therefore, based primarily upon the experience and knowledge of the river by Bureau of Land Management personnel, areas were chosen to be inventoried and were discussed with the survey crews. All of the large, popular camping areas used by recreationists were examined. Numerous smaller camping areas which receive moderate to light recreation use were also inspected. The most heavily used recreation areas are large sandy beaches adjacent to a river terrace. These same areas are most heavily impacted by livestock and most susceptible to damage by fluvial erosion. Other tracts away from the camping areas were examined when time allowed.

Use of the camping areas occurs on the sand beach as well as the terrace. Kitchen and most sleeping activities are usually confined to the beach while hiking, some sleeping activity, viewing archeological and historical sites, and human waste disposal are conducted on the terraces. All activities are confined to the terrace during the period of high runoff. The reconnaissance crews identified cultural sites on terraces and recorded architectural features, site area and condition, and sources of deterioration affecting the site. Architectural feature dimensions were recorded with a tape measure or pacing depending upon the available time. All sites were documented with color slide photographs and were located on U.S.G.S. 7.5 minute topographic maps and/or air photographs.

Artifacts were collected by reconnaissance crews only when they were in danger of being removed by the public land visitors, damaged by livestock or when information could be obtained from the artifact that pertained to the functional or temporal significance of the cultural site. Collecting was kept to a minimum and no intensive controlled surface collections or subsurface testing was completed during 1980. Subsurface testing was conducted on 10IH73, 10IH396, and 10IH1312 in 1976 but no report has ever been completed.

Access by the reconnaissance crews to the river was accomplished by the use of rafts, vehicles, and hiking. Access to more remote

sections of the management area was achieved with raft support. Raft support allowed crews to inventory rugged sections of the management area but also imposed time limitations on the crew in some instances. The time involved in inventorying the areas required unpacking a portion of the raft, surveying the area, repacking the raft, floating to the next location and repeating the same procedure. In those areas where vehicle access was available, all reconnaissance was conducted by hiking or driving from a base camp or backpacking from the end of a road.

The result of the inventory was the recording of 103 new sites and verification of 72 previously recorded sites. Bureau of Land Management personnel have recorded 14 new sites within Section B since the completion of the 1980 reconnaissance. All the newly recorded sites have been in areas with light recreation use and have been confined to the higher terraces or rugged terrain.

A cursory inventory was initiated in Section A by Bureau of Land Management personnel in 1980. Only a minimum of time was spent conducting the work. Ten new cultural sites were recorded and five previously recorded sites were verified. One additional site has been recorded since 1980. The majority of the inventory was conducted in areas with vehicle access.

Document Research and Public Input

Library research was conducted to gather information on the general culture history of the area prior to the baseline field reconnaissance. Site specific information for areas was researched when possible. Manuscripts on the general history of Idaho as well as local historical documents were examined.

The General Land Office survey plats, field notes, and historical indexes have also been inspected for portions of the river. Oral

histories have been used on a limited basis since very few interviews have been conducted.

Bureau of Land Management planning documents were reviewed and information was obtained from Bureau of Land Management personnel concerning the history of the area. Information on past Bureau of Land Management actions on certain tracts of land has been useful, especially in areas where old structures were burned prior to 1978.

Oral and written input from other cultural resource specialists, the Nez Perce Tribe, and the general public has proved extremely valuable. Information on site evaluations, specific site protection measures, and general management direction for the entire river has been discussed and proved to be invaluable.

Interim Protection Plan Results: 1981 - 1982

An interim protection plan was completed in the spring of 1981 and implementation began in the summer of 1981. Results of the administrative protection measures, physical protection measures and the site monitoring program are to follow.

News releases concerning the importance and the protection of the cultural resources along the river were issued in 1981 and 1982. The Cottonwood Chronicle, Grangeville Free Press, and the Lewiston Morning Tribune carried the articles. A display case was completed in 1982 and is located in the Cottonwood Resource Area Headquarters. The display emphasizes both the prehistoric and historic resources on the river. A curatorial agreement was also initiated with the local museum. An insert concerning cultural resources on the river is included with all replies to the interested public when they request information about the Lower Salmon River.

A professional paper was presented at the 1982 Idaho Archeological Society meeting concerning cultural resources on the Salmon River. A slide program was presented to the Nez Perce Tribe's Natural Resource Subcommittee on the cultural resources on the Salmon River. Also, a professional paper concerning the Chinese occupation along the Salmon River was presented at the 1983 Society for Historical Archeology annual meeting.

A cross-reference file system was established. A file for each individual site was prepared and is filed by county and then by numerical order within each county. Information contained within each site file includes the original site form, all subsequent monitoring notes and summaries of monitoring actions, maps, any historical references to the site, and close-up photographs of any specific monitoring actions. Therefore, the site file is a dynamic record of all examinations or information on specific sites. This allows for a current record of the last examination and condition of the site. Locations of all cultural sites are recorded on U.S.G.S. 7.5 minute maps arranged by township and range in a map atlas. General view photographs of specific sites are filed seperately and are cross-referenced with a sequential numbering system which are recorded on the photograph and in the site file. Photocopies of information required to complete monitoring studies is taken in the field therefore, the file is never removed from the Bureau of Land Management office.

Implementation of the cultural resource monitoring program began in 1981 and continued into 1982. Monitoring studies are conducted to evaluate current conditions; measure the impact of management actions; and measure the various sources of deterioration affecting cultural resources.

Studies were conducted to determine trend of the cultural resources. Trend is the direction or change toward which the condition of the cultural resource is tending. It indicates whether the site condition is improving, deteriorating, or not changing.

Trends were determined by noting changes in eroding or exposed banks, deterioration of structures, or changes in density and cover of the vegetation. Photographs, measurements, and/or estimates were utilized depending upon the type of study used. The condition of the resource and need for the data also are used in the design of monitoring methods. A cultural resource site monitoring program is discussed in Chapter VI.

In 1981, seven cultural sites were observed which had previously unrecorded damage in 1980. Previously unrecorded damage from recreation use and vandalism were noted on 86 percent of the sites. Increased damage from livestock use accounted for the other 14 percent.

In 1982 a greater number of cultural sites were examined in more detail. Not only were previously unrecorded sources of deterioration noted, but those sites that were continuing to be damaged were also observed. Twenty-three of 120 sites were observed with continuing damage or previously unrecorded damage. Increasing or continuing recreation use and/or vandalism accounted for 61 percent of the damage.

One problem is the construction of unauthorized latrines with trench tools. The average size of the latrine is a hole 12 x 12 x 8 inches. Also, trails used by recreationists that crossed cultural sites are receiving accelerated use and new trails are being formed. There is also an increase in vandalism. Because of the small size of the vandal holes dug in the sites it is considered to be a recreational activity rather than the digging of artifacts to sell commercially.

Increased or continuing erosion and weathering occurred on 49 percent of the cultural sites monitored. Much of the increased erosion occurred from the abnormally high spring runoff of 1982. Other areas continued to erode from a combination of factors

including recreation and livestock trails that cross the edge of a terrace which can create an unstable, eroding bank.

Increased or continuing livestock use accounted for only one percent of the total number of cultural sites that had a downward trend in condition. Several of the cultural sites were impacted by more than one source of deterioration which resulted in the total percentage exceeding 100 percent.

New features were added to previously recorded sites and locational data were corrected while conducting site patrol and surveillance. Fifteen previously unrecorded cultural sites were documented while conducting monitoring studies. One cultural site (10IH1274) has been deleted from the original survey because of an earlier record keeping error. Four cultural sites (10IH384, 10IH1177, 10IH1178 and 10NP180), were not monitored since they were planned to be transferred to the U.S.F.S. for inclusion with the Hells Canyon National Recreation Area.

Antiquity signs were placed at 10IH73 and 10IH403. Eroding banks at 10IH396 and 10IH1220 were reseeded in an effort to stabilize the bank. Vehicle access to the beach at 10IH396 was hindered by placing large boulders cemented in the ground which prohibited vehicles from passing over them or around them.

A controlled surface collection was conducted on 10IH780 because of increased recreation use, damage from the abnormally high flood, and to a lesser extent livestock trailing. A permanent datum was set in April, 1982, and the site was divided into quadrants. The northwest quadrant was receiving the most impact from recreation and cattle trails. Therefore, the northwest quadrant was divided into a 1 x 1 meter grid system and all artifacts were collected in the units. Because the above average spring runoff had eroded the bank a 1 x 1 meter grid system was set over the northwest quadrant

again in July 1982, and all artifacts collected. Diagnostic artifacts were randomly collected from the southwest quadrant. The northeast and southeast quadrants were not impacted.

Artifact collectors vandalized 10IH73 in the winter of 1982. To protect the site, the vandal holes were lined with visquine, the backdirt screened, and the holes filled with rock and dirt hauled to the site. The holes were filled to the contour of the surrounding terrain and reseeded. Sand was also being removed for personal use by local residents. A portion of the site is located in an exposed sand bank and is situated so that vehicles can easily back up to the bank and remove the sand. To prevent further damage that portion of the site was covered with rock.

Detailed recording was initiated on all the known pictograph sites. Photographs and detailed sketches of the pictographs were made.

A permanent datum was set and a detailed topographic map (minimum of one-foot contours) will be developed for the eroding bank on 10LE47. The map will provide data on any major changes (one-foot or greater) on the cut bank. Also, a line was set along the edge of the bank and measurements were taken to record any changes less than one-foot. The site will be monitored annually with maps being developed and compared to the previous years data to determine the amount and rate of deterioration.

Table 1. Cultural data for the Lower Salmon River

LEGEND

Site Features

RA	Rock Art
RK	Rockshelter
FR	Faunal Remains
LS	Lithic Scatter
TD	Talus Depressions
C	Cairn
D	Depressions
RF	Rock Features
HM	Hydraulic Mining
ME	Mining Equipment
RS	Rock Structure
DS	Ditch System
R	Reservoir
FS	Framed Structures
A	Adit
S	Shaft
HD	Historic Debris
G	Grave
T	Transportation

* Indicates a site in Section A.

** Feature is of unknown origin but was placed in the feature category they were felt to represent.

( ) Numbers in parentheses refer to a sample greater than one.

Source of Deterioration

CO	Current Occupancy
AD	Agricultural Development
RW	Rights-of-Way
RF	Range Facilities
L	Livestock
TI	Timber Improvement
F	Fire
ORV	Off-Road Vehicles
RF	Recreation Facilities
RU	Recreation Use
SX	Scientific Excavations
V	Vandalism
W	Wildlife
SE	Surface Erosion
BE	Bank Erosion
M	Mineral Exploration

*** The site has no other recorded sources of deterioration except for weathering and decay which is common to all 205 cultural sites and is therefore not indicated in the table for individual sites to prevent redundancy.

Table 1. Cultural data for the Lower Salmon River

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10IH51*	4	RA,RK	--	Destroyed	--	RW
10IH52*	110	D(4)	--	Destroyed	--	RW,SE
10IH57*	Unknown	G	--	Destroyed	--	RW,V
10IH58*	13,832	D(7)	--	Poor	--	AD,TI,SE
10IH60	56,658	LS	RF,HM,ME	Destroyed	Good	CO,RW,RF
10IH63*	Unknown	LS	--	Poor	--	CO,RF,RU
10IH73	2,500	FR,LS	--	Poor	--	ORV,RU,SX,V, SE,BE
10IH88*	Unknown	FR,LS	--	Destroyed	--	CO,RW,SE,BE
10IH89*	8,418	FR,LS	--	Poor	--	CO,RF,RU
10IH379*	Unknown	FR,LS,D(2)	--	Good	--	BE
10IH383	25	LS	--	Poor	--	RW,L,SE
10IH387	975	FR,LS,D(3)	RF	Good	Good	L,SE,BE
10IH388	1,050	FR,LS	HM,HD	Poor	Poor	L,SE,BE
10IH389	Unknown	FR,LS,D(4)	HM	Poor	Good	L,SE,BE
10IH390	600	FR	RS(3)	Poor	Good	V,SE,BE
10IH395	400,000	FR,LS,D(4)	HM,FS,HD	Good	Good	RW,L,V,SE,BE
10IH396	52	FR,LS	G	Poor	Good	ORV,RU,SX,V, SE,BE
10IH397	4,480	FR,LSE,D(2)	HD	Good	Good	ORV,RU,V,SE
10IH398	Unknown	LS,C	--	Poor	--	L,SE
10IH399	13	FR,C	--	Poor	--	L,SE
10IH401	2,500	FR,LS	HM,HD	Poor	Poor	RW,L,RU,SE,BE
10IH402	180	RA,RK,LS	DS	Poor	Good	L,V
10IH403	176	RA,RK,LS	DS	Poor	Good	L,V
10IH406*	4	--	G**	--	Good	***
10IH417	2,000	RK(2),FR,LS	HM	Poor	Poor	L,SE,BE
10IH429	9	D**	--	Good	--	L,SE
10IH724	4,900	--	RF,S(3)	--	Good	RW,L,RU,SE,BE
10IH725	20	FR,LS	RF,FS(2)	Good	Good	CO,RU
10IH750	170	--	RF,RS(2)	--	Poor	V,SE
10IH760	625	--	RF,RS	--	Good	V,SE
10IH761	1,200	FR,LS,D(3)	--	Good	--	V,SE
10IH766	1,800	RK,FR,LS	RF,RS(3)	Poor	Good	L,V,SE
10IH770	230	--	RF,RS(2),HD	--	Poor	M,L,SE,BE
10IH775	13,000	--	RF,HM,FS,HD	--	Good	L,SE
10IH776	15	--	RS	--	Good	L,SE
10IH777	7	--	RK	--	Good	W
10IH778	8	LS	--	Poor	--	RW,BE
10IH779	6,000	--	D**,RF(2), RS(5), HD	--	Good	L,V,W,SE,BE

Table 1. (Continued)

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10IH780	12,000	FR,LS	HM,RS(6),R,HD	Poor	Good	L,RU,V,W,SE,BE
10IH782	70	--	RS	--	Excellent	RU,V
10IH783	3,000	FR,D(2)	RF	Good	Good	SE,BE
10IH784	100	--	RS,HD	--	Good	RF,SE
10IH787	200	FR,LS,D	RF	Good	Good	SE
10IH788	25	--	RS,DS,HD,T	--	Good	SE,BE
10IH789	5,400	FR	D(2),HD	Destroyed	Poor	SE,BE
10IH791	3,600	--	D,RF,HD	--	Poor	L,SE
10IH792	750	RS,FR,LS	--	Poor	--	SE,BE
10IH793	285	RS,FR,LS	RF,RS(2),A,HD	Destroyed	Excellent	L,RU,V,SE
10IH794	7,000	RS,FR	HM,HD	Poor	Poor	L,V,SE,BE
10IH796	20	RA,RS,FR,LS	--	Good	--	RU,V,SE,BE
10IH797	30	--	RF,RS,HD,FR	--	Good	RU,V,SE
10IH889*	97	--	G(3)	--	Excellent	***
10IH1053	2	RA,RS	--	Good	--	SE
10IH1054	25	FR,D	--	Good	--	SE
10IH1160	2,100	FR,LS	HM	Good	Poor	L,SE,BE
10IH1161	120	--	RS,HD	--	Good	SE
10IH1162	24	--	RS,HD	--	Good	SE
10IH1163	300	RS,FR,LS,D(10)	RS(2),HD	Poor	Good	L,RU,SE,BE
10IH1164	64	--	RS,C	--	Poor	***
10IH1165	800	--	RF,RS(2),HD	--	Good	SE
10IH1180	100,000	--	RF,HM,DS,R,FS,HD	--	Good	RU,SE
10IH1181	12	--	HD	--	Good	***
10IH1182	8	--	RS,ME,HD	--	Good	***
10IH1183	100	--	D,HD	--	Good	SE
10IH1184	100	D(2)**	--	Good	--	SE
10IH1185	75	D(2)**	--	Good	--	SE
10IH1186	600	--	D**,ME,RS,FS,HD	--	Good	L,F,RU,SE
10IH1187	39	--	RS,ME,HD	--	Good	RU,V
10IH1188	90	--	FS,HD	--	Good	SE
10IH1189	40	--	RS(2),A,HD	--	Good	L,SE,BE
10IH1190	25	--	RS	--	Good	SE
10IH1191	50	LS	--	Good	--	L,SE
10IH1192	7	--	D**	--	Good	L,SE

Table 1. (Continued)

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10IH1193	3,600	--	DS,R,FS(2), HD	--	Good	CO
10IH1194	7	--	RS	--	Good	BE
10IH1195	24	--	RS	--	Poor	***
10IH1196	35	TD(2)	--	Excellent	--	SE
10IH1197	180	--	RS,HD	--	Poor	SE,BE,
10IH1198	500	D(3)	--	Good	--	SE
10IH1199	75	LS,D(2)	RF,HM	Good	Poor	W,SE
10IH1200	100	--	HM,RS,R	--	Poor	L,SE
10IH1201	8	--	R	--	Excellent	***
10IH1202	1,350	TD,D(6)	--	Excellent	--	RU,SE
10IH1203	700	TD,D(3)	--	Good	--	L,SE
10IH1204	Unknown	--	RS,ME,HD	--	Good	SE
10IH1205	600	--	RF,RS,HD	--	Good	SE,BE
10IH1206	9	--	RS,HD	--	Good	SE
10IH1207	680	LS	D,RF,DS,R	Poor	Good	L,RU,SE,BE
10IH1208	35	--	RF,HM,RS,HD	--	Poor	SE
10IH1209	2,500	--	FR,LS,RS,HD	--	Good	RU,V,SE
10IH1210	2	FR,LS	D,RF,HM, RS(2),DS	Poor	Poor	L,BE
10IH1211	2,000	LS	HM,RS(2), DS,HD	Poor	Poor	L,SE
10IH1212	5	LS	RF,HM	Poor	Poor	L,BE
10IH1213	80	D(5)**	--	Good	--	L,SE
10IH1214	9	--	D**	--	Excellent	SE,BE
10IH1215	138	C(4),D(2)	DS	Excellent	Excellent	SE
10IH1216	400	--	RF,HD	--	Poor	RW,RF,RU
10IH1217	4,200	C(2),D	HD	Good	Poor	RF,L,SE
10IH1218	1,650	TD(2),C(9); D(2)	RF	Good	Good	AD,L,SE
10IH1219	7,200	TD(9),C(6)	--	Excellent	--	L,SE,BE
10IH1220	150	LS	--	Destroyed	--	RW,ORV,SE,BE
10IH1221	900	--	RF,HM,RS, HD	--	Good	RU,SE
10IH1222	25	--	RK,HM,RS, HD	--	Good	L,SE
10IH1223	60	--	RK,RF,HM, RS	--	Poor	L,SE,BE
10IH1224	16	--	RF,HM,RS	--	Poor	SE
10IH1225	300	LS	RF,HM,RS, HD	--	Good	SE

Table 1. (Continued)

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10IH1226	2,000	--	HM,RS,R	--	Good	SE,BE
10IH1227*	400	--	RS(2)	--	Poor	V
10IH1228*	200	--	RF	--	Poor	F
10IH1229*	5	D**	--	Good	--	***
10IH1230*	1,000	--	T	--	Good	SE,BE
10IH1231*	1,200	--	T	--	Destroyed	V
10IH1232*	8,094	--	RF,HM,RS	--	Poor	RW,V
10IH1233*	4	C	--	Excellent	--	***
10IH1234*	12	--	HM,RS,HD	--	Poor	***
10IH1235*	8,094	--	HM,RS	--	Good	***
10IH1237	350	FR,LS,C	--	Poor	--	L,W,SE,BE
10IH1238	15,000	FR,LS	HM,RS	Poor	Good	V,SE
10IH1239	20,000	--	HM,RS,DS,R	--	Good	RU,V,SE
10IH1240	10,000	--	C,RF,HM,RS, DS,R,HD	--	Poor	SE
10IH1241	3,250	FR,LS,D(6)	RF,HM,DS,HD	Good	Good	L,V,SE,BE
10IH1242	11	--	RF,HD	--	Poor	SE
10IH1243	2,000	--	D,HM,R,S, HD	--	Good	SE
10IH1244	600	--	RS,HD	--	Poor	SE
10IH1245	36	--	D	--	Good	SE
10IH1246	6	FR,LS	--	Good	--	BE
10IH1247	170	LS	C,RF,HM,RS, S(2),HD	Poor	Excellent	W,SE,BE
10IH1248	2	--	C	--	Poor	SE
10IH1249	75	--	RF,RS	--	Poor	L,SE,BE
10IH1250	100	LS	RF,HM,DS,T	--	Poor	RW,SE
10IH1251	200	--	RF,RS,HD	--	Good	SE
10IH1252	40	--	RK,RF,HD	--	Good	SE
10IH1253	5	C	--	Excellent	--	SE
10IH1254	1,500	--	RK,LS,RS, HD	--	Poor	L,SE,BE
10IH1255*	8,094	--	HM,RS,HD	--	Poor	V
10IH1256	130	--	HM,FS	--	Poor	***
10IH1257	200	--	RF,HM,ME, DS,R	--	Good	L,SE
10IH1258	500	--	RF,HD	--	Poor	L,V,SE
10IH1259	20	--	RF	--	Poor	L,SE
10IH1260	400	FR,LS	RF,HM,DS,R, HD	Poor	Poor	RW,L,SE,BE
10IH1261	150	LS	RF,HM	Destroyed	Poor	L,SE,BE

Table 1. (Continued)

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10IH1262	36	--	RF,HD	--	Poor	L,SE
10IH1263	30	--	HM,ME,RS	--	Good	SE
10IH1264	25	--	HM,HD,RS	--	Poor	L,SE
10IH1265	1,200	--	RF	--	Good	***
10IH1266	1,218	--	R	--	Good	L,SE,BE
10IH1267	25	--	RS	--	Good	SE,BE
10IH1268	1	--	C	--	Excellent	SE
10IH1269	500	FR	RF,HM,RS, HD	Poor	Poor	L,V,SE,BE
10IH1270	210	FR,LS	HM	Destroyed	Poor	L,SE,BE
10IH1271	5,100	--	RK,RF,HM, RS,DS,HD	--	Good	SE
10IH1272	2,000	--	R	--	Good	***
10IH1273	16	--	RS,HD	--	Poor	SE
10IH1275*	Unknown	--	RF,HM,RS, HD	--	Poor	***
10IH1279	2	--	RK,RF,HD	--	Excellent	***
10IH1280	12	--	HD	--	Excellent	***
10IH1284	191	--	RF,RS(2)	--	Good	L,SE
10IH1285	6	--	RK,RF,HD	--	Good	***
10IH1299*	252	--	HM,RS,FS(5), HD	--	Good	RU,V,W
10IH1302	3,600	D(6)**	--	Excellent	--	L
10IH1303	4	RA	--	Good	--	***
10IH1304	1	RA	--	Good	--	***
10IH1305	4	D**	--	Excellent	--	***
10IH1308	16	FR,LS	--	Good	--	BE
10IH1312	2,500	FR,LS	RF,RS	Good	Good	SX,SE,BE
10IH1314	150	--	HD	--	Poor	RU,BE
10IH1317	12	--	RS	--	Excellent	***
10IH1319	9	--	RK,RF	--	Good	***
10IH1328	6,000	--	RF,RS(2), S(2),HD	--	Good	***
10IH1329	9,450	--	HD	--	Poor	L
10LE18	750	D(3)	--	Good	--	L,SE
10LE19	75	FR,LS,D	HM	Poor	Good	SE,BE
10LE20	360	--	HM,RS	--	Good	SE
10LE21	200	FR,LS,D(5)	HM	Good	Good	L,RU,SE,BE
10LE22	4,000	--	RF,ME,RS	--	Good	L,V,SE,BE
10LE46	600	--	RF,DS	--	Good	SE

Table 1. (Continued)

Site	Area (m^2)	Features		Condition		Sources of Deterioration
		Prehistoric	Historic	Prehistoric	Historic	
10LE47	16,800	FR,LS,TD(2), C(6),D(26)	HM,RS	Good	Excellent	RU,SE,BE
10LE48	50	--	D(4)**,HM	--	Good	SE
10LE49	21	--	RF	--	Good	SE
10LE50	130	D(10)**	--	Good	--	L,SE
10NP113	70	--	HM,RS	--	Poor	L,SE
10NP116	25	D	--	Good	--	L,V,SE
10NP117	1,925	FR,D(5)	HD	Good	Poor	RW,L,V,SE
10NP119	16	--	RF	--	Poor	SE
10NP120	1,800	LS,D(2)	HM,DS,R	Poor	Good	RW,L,V,SE,BE
10NP122	1,275	LS,FR,D(2)	HD	Poor	Poor	RW,L,SX,SE, BE
10NP123	920	FR,LS	--	Poor	--	SX,V,SE,BE
10NP124	700	FR,LS,D	--	Poor	--	RW,L,SX,V, SE,BE
10NP125	2,010	FR,LS	--	Poor	--	RW,L,ORV,RF, RU,SX,SE,BE
10NP128	4,200	FR,LS	--	Poor	--	RW,L,ORV,RF RU,SX,V,SE,BE
10NP224	16	D**	--	Good	--	V,SE
10NP225	15	LS	--	Poor	--	L,W,SE,BE
10NP226	132	LS	RF,HM,RS, DS,FS,HD	Good	--	F,W,SE,BE
10NP227	65	--	C,RF,RS(2)	Good	--	SE,BE
10NP228	1,000	--	RF,HD	--	Poor	SE
10NP229	14	FR,LS	--	Destroyed	--	V,SE,BE
10NP230	1	RA,RK	--	Good	--	***
10NP231	300	FR,LS,D	--	Poor	--	RW,L,ORV,RU, SE,BE
10NP232	110	TD(2)	--	Good	--	SE
10NP233	60	FR,LS,D(2)	--	Poor	--	L,V,SE,BE
10NP234	30	--	RF	--	Poor	SE
10NP235	20	--	HM,RS	--	Good	RW,SE
10NP236	Unknown	LS	--	Destroyed	--	RW
10NP262	80	LS	D(3),DS,HD	Destroyed	Good	L,SE,BE
10NP263	60	--	RF,RS,A	--	Good	SE,BE

26 in Section B for a total of 27 in the management area. There are numerous rockshelters that do not show any evidence of use and a multitude of others that have never been examined.

Faunal Remains: Faunal remains include all bone fragments of animals found on a site. This also includes shellfish remains. Often the faunal remains are associated with other features such as lithic scatters and depressions. Faunal remains are represented on a total of 36 sites in the management area with 35 in Section B and 1 in Section A.

Lithic Scatter: A lithic scatter is any group of stone artifacts or fragments of artifacts observed on the surface or in exposed subsurface deposits. A lithic scatter is composed of flaked stone tools and debitage that do not have any apparent cultural patterning. The term lithic scatter, as used in this cultural resource management plan only indicates the presence of lithic artifacts on a site. The term lithic scatter is not used to indicate a particular functional characteristic of a site such as "temporary camp" or "fishing station". Lithic artifacts are sometimes associated with depressions and faunal remains which could indicate a semisubterranean house pit although often there are no visible features associated with lithic artifacts. Identifying lithic scatters separately, and not lumping them in other feature categories, should allow the manager to identify special areas where there could be problems with illegal surface collection of artifacts. Four sites in Section A, 57 sites in Section B, for a total of 61 sites for the entire management area exhibit this feature. Surface density of artifacts should not be considered to reflect subsurface deposits since there has been a considerable amount of collecting and other surface disturbing activities in the management area. Subsurface deposits can only be evaluated with a systematic soil augering and test excavation research design.

Talus Depressions: A talus depression is a depression excavated in a stable portion of a talus field. The size of the depressions generally are 1 - 2 meters in diameter and average 0.5 meter deep. The talus depressions are usually found in groups. There are no associated artifacts with the features. The talus depressions may be remanents of Indian hunting blinds, collapsed burials, caches or are related to vision quest activities. Eighteen talus depressions are recorded along the Lower Salmon River. All the recorded features are in Section B.

Cairn: A typical cairn in the area is a pile of stones that averages one meter in diameter at the base and not more than one meter high. No artifacts have been found in association with the cairns. Thirty-eight cairns are recorded within the management area with 1 in Section A and 37 in Section B.

Depressions: A depression may be defined as an area that is sunk below the surrounding ground surface. Depressions in the study area vary from 1 - 10 meters in diameter. The term depressions was used as often no cultural material is associated with the feature. It is difficult to determine if the depression was a semisubterranean house, natural slumping, older livestock wallows, mine prospect pits, or cache pits. Some features have artifacts found in association from which one can infer that they are human in origin. A total of 167 depressions are located along the Lower Salmon River. Fourteen depressions are located in Section A and 153 in Section B.

Rock Feature: Rock feature is a general term used to describe numerous rock alignments found in the study area. Most of the rock walls and other rock features are associated with hydraulic mining activity. The size of the rock features vary from less than 1 meter up to 20 meters in length. The majority of the

rock features are less than one meter in height. Three features are recorded in Section A, 63 in Section B, for a total of 66 in the management area.

Hydraulic Mining Activity: Both mine tailings and cutbanks are included in this feature description. Hydraulic mining activity is usually found in association with rock structures. Both tailings and cutbanks are found on almost every low terrace or alluvial fan along the river. Three hydraulic mining features are recorded in Section A, 49 in Section B, for a total of 52 for the management area.

Mining Equipment: Mining equipment includes such items as sluice boxes, rockers, gears, and nozzles as well as other items related to hydraulic and lode mining. Eight features are recorded in the management area. All of the features are located in Section B.

Rock Structure: A rock structure is usually a square or rectangular structure with at least three and usually four walls still standing. The height of the rock wall may vary from one to four feet. Often a fireplace can be detected in one of the walls. Sod, canvas, or wood may have been utilized for the superstructure. Rock structures are usually found in association with rock features and hydraulic mining activity. Ninety-five rock structures are recorded in the management area. Eight rock structures are recorded in Section A and 87 in Section B.

Ditch Systems: Ditch systems were employed to carry water for hydraulic mining. The ditches were constructed by hand on the contour of the slope. In those areas where ditches were not possible, flumes were constructed. Ditches could come directly from a drainage or from a reservoir. Twenty ditches are

recorded in the management area. All the ditches are in Section B.

Reservoir: Reservoirs were used to store water for the hydraulic mining operations. The reservoirs vary in shape and depth and are usually accompanied by ditches that brought water to and/or from the reservoir. Fourteen reservoirs are recorded in the management area. All of the reservoirs are in Section B.

Framed Structure: A framed structure is one that is constructed of sawed lumber and usually covered with some sort of siding of wood, metal, etc. Roofing usually consists of tarpaper, wooden shingles or corrogated metal. Sixteen framed structures are recorded in the management area. Five framed structures are recorded in Section A and 11 in Section B.

Adit or Shaft: An adit is a horizontal passage from the surface to the mine for working or dewatering. A shaft is a vertical passage from the surface to the mine. Some of these are a public hazard because of the possibility of a cave-in. Fourteen adits or shafts are recorded in the management area. Three are recorded in Section A and 11 in Section B.

Historic Debris: Historic debris refers to a group of historic artifacts observed on the surface or in exposed subsurface deposits. Historic debris consists of metal, glass, ceramic, wooden, rubber or leather artifacts that do not have any apparent cultural patterning. The artifacts usually represent a variety of functional uses. The surface density of artifacts should not be considered to reflect subsurface deposits since there has been considerable collecting and other surface disturbing activities. Subsurface deposits can only be evaluated with a systematic testing program utilizing test excavation and intensive soil augering when appropriate. Historic debris

is usually associated with rock structures or rock features. Seventy-seven historic debris features are documented in the management area. Five features are recorded in Section A and 72 in Section B.

Grave: Grave refers to the place where a person is believed to be buried. Features included within this category are those sites that are knwon to contain historic or prehistoric human remains. Four sites in the management area contain graves, one in Section B and three in Section A. Other features in the management area that could contain prehistoric human remains or could have had other uses have been included in other categories such as cairns or talus depressions since their function is currently unknown.

Transportation: Transportation is any feature that was used for transportation. This includes fragments of stage roads, remains associated with ferrys, or old non-functional power-lines that were used to carry power to mines in the 1920s or 1930s. Four transporation related features are located in the management area with two in Section A and two in Section B.

Site Area and Condition

The area and condition of sites were recorded during the 1980 field reconnaissance and subsequent monitoring studies. Site area was determined by establishing boundaries around identified features. Boundaries were delineated after a careful examination of the area. Often, site boundaries conformed to geomorphic features such as the edge of terraces, alluvial fans or the base of toeslopes. The area for rock art features, if not associated with other features, was determined by measuring the area of the rock face that was overlaid

with the rock art. The area and condition for sites in the management area are indicated in Table 1.

It is not possible to test excavate all 205 cultural sites to determine depth and concentrations of artifacts based upon Bureau of Land Management budget limitations. Not all the cultural sites are being damaged to the degree that would require subsurface testing. Subsurface testing activities on many sites would actually damage the site more than the recorded sources of deterioration impacting the sites. Before a major subsurface data recovery program is initiated on individual sites, the depth and material content of the site should be determined. This information would be used to prepare a detailed data recovery plan and estimate the labor in person-days to accomplish the planned action.

Site condition can vary within a site such as with 10IH1163. For example, some sites may be shown as being both in destroyed and excellent condition. This may result when one feature such as remains from historic hydraulic mining are in excellent condition, but the prehistoric feature will be destroyed because of the mining activity.

The condition categorization of the site was a judgement of the inventory or monitoring crew. Generally the condition of the site was judged upon a variety of factors. Several factors used were the amount of exposed and eroding banks on a site, the extent of vandalism, and the appearance of the walls of rock structures. Criteria used in determining the condition of rock structures included whether there was a large amount of recent rubble around the standing wall and if lichen covered rocks had been disturbed. Other evaluation factors used included the density and cover of the vegetation.

Initial condition of the cultural resources were determined by the 1980 reconnaissance crews. When subsequent monitoring of the

cultural sites was conducted the original condition was verified and the site was thoroughly examined to determine the trend in site condition.

Detailed descriptions of the cultural resources were prepared by the reconnaissance crews and Bureau of Land Management personnel. Based upon the 1980 reconnaissance and subsequent monitoring through 1982, reports on the existing condition and trend in condition include a narrative describing the sources of deterioration and the degree of impact. When possible, historic and contemporary photographs, measured drawings, illustrations, maps and references to appropriate historic documents were included.

Site Deterioration

Site deterioration is the physical deterioration of cultural resources when that deterioration impacts the values which makes the site or feature important for socio-cultural or scientific use. Cultural values can be affected by four general types of deterioration.

1. Loss of Features: Natural weathering, decay, erosion, intensive recreation use and vandalism can remove elements which originally constituted a cultural resource. This loss affects the completeness and accuracy of the information used by scientists and recreation interpreters, and influences the importance of the resource for socio-cultural or scientific use.

2. Modification of Physical Relationships: Effective scientific use of a cultural resource is very often dependent upon the accuracy of vertical and horizontal measurements among elements of the site. Displacement of original relationships lowers the reliability, or may completely negate the significance, of

such measurements in reconstructing the activities and sequence of events at a site.

3. Modifications of Characteristics: The utility of a cultural resource is often dependent upon the physical, chemical, functional, and aesthetic characteristics of the elements of the site. Changes in these characteristics occur, for example, through process of decay, leaching, and the effects of high temperature from range fires. Examples include metal corrosion, rock-spalling, loss of mortar and rock walls collapsing.

4. Intrusions or Modifications of Features: Intrusions or modifications may affect the integrity or a site or a feature within a site. Recreation and range facilities construction, graffiti, structural modifications, utility or road right-of-ways, or other improvements may be inconsistent with the historical or interpretive theme of a site or the entire area. Another intrusion is the use of cultural sites that have extremely high socio-cultural values held by local Native American groups. An example would be recreation use or the issuance of a temporary use permit in an area that is considered to be sacred because of important religious values and/or Native American burial grounds.

Possible sources of deterioration were outlined prior to the 1980 reconnaissance. A list of possible sources of deterioration were used while conducting the 1980 reconnaissance and continued to be used while conducting subsequent monitoring studies. Sources of deterioration affecting cultural sites in the management area are shown in Table 1. The following are brief definitions and summaries of the total number of sites affected by the various sources of deterioration.

Current Occupancy: Current occupancy refers to sites that are currently occupied by members of the public. The grants to

live on these tracts were issued prior to 1978. There are also several cases of unauthorized use. There are six sites in the management area. Three sites are in Section A and three sites in Section B.

Agricultural Development: Agricultural development impacted two sites in the management area. Fields have been plowed, seeded and harvested. One site is located in Section A and the other in Section B.

Rights-of-Way Construction and Use: Few rights-of-way have been issued along the Salmon River. Most of the damage is occurring from Bureau of Land Management constructed roads, county roads and state highways. There are 24 sites in the management area that have been impacted. Five sites in Section A and 19 in Section B.

Mineral Exploration: Recent mining activity on private land near a parcel of public land had a minor impact on a site. All public land in the management area is closed to mineral entry. One site in Section B was adversely impacted from mineral exploration.

Range Facilities: Range facilities include the development of salt stations, corrals, spring developments, fence construction and exclosures. Two sites, both in Section B, have been impacted from range facilities construction.

Livestock: Livestock damage results from trail use, over-utilized areas, and areas where cattle congregate in the winter or around salt and water. Livestock damage to sites resulted primarily from the use of trails. Excessive damage can occur from trails that cross the edge of a terrace thus creating excessive erosion. Seventy-three sites are recorded

with livestock damage and all are in Section B. There was a seven percent increase in total number of sites impacted by livestock over a two year period.

Timber Improvement: Timber improvement is the use of tree nurseries, scarification or thinning for improving tree stock. One site in the management area, located in Section A, has been impacted by a Bureau of Land Management tree nursery.

Fire: Fire can destroy wooden framed structures, combustible artifacts, change the nature of lithic artifacts and change the composition of culturally rich soil. One site in Section A and two sites in Section B are documented with impacts from fire.

Off-Road Vehicle Use: Off-road vehicle use involves four-wheel drive, motorcycle and all-terrain vehicles that are not operated on established Bureau of Land Management trails or roads. Off-road vehicle use has damaged seven sites. All seven sites are located in Section B.

Recreation Facilities: Recreation facilities include construction of boat ramps, pit toilets, access roads, anchoring of picnic tables and campground barriers to prevent vehicle access to parts of the campground. Recreation facility construction has damaged a total of five sites in the management area. One site is in Section A and four sites are in Section B.

Recreation Use: Recreation use involves the use of trails, camping, viewing historical and archeological sites, and the construction of latrine holes (the average size is 12 x 12 x 8 inches) which are utilized for the disposal of human waste. Thirty sites are documented as impacted from recreation use

in the management area. Three are in Section A and 27 are in Section B. There was a 67 percent increase in the total number of sites impacted over a 2 year period.

Scientific Excavation: Scientific excavations are those projects that use the most current methods of carefully excavating a site and using horizontal and vertical controls to record the removal of artifacts. Detailed, accurate records are kept of all excavation procedures and all artifacts are catalogued according to set procedures. Scientific excavations have occurred on eight sites in the management area. All are located in Section B.

Vandalism: Vandalism is the deliberate, illicit excavation or removal of surface artifacts or the destruction of features on a site. Forty prehistoric and historic features have been adversely impacted in the management area. Five sites are in Section A and 35 in Section B. There was a 24 percent increase in the total number of sites impacted over the 2 year study period.

Wildlife: Wildlife use can result from wildlife trails, excessive use of watering areas, burrowing under or through wooden, stone, or dirt walls and floors, and by consuming parts of wooden structures. Nine sites in the management area are impacted by wildlife. One site is in Section A and eight are in Section B. There was a 29 percent increase in the total number of sites impacted over a 2 year period.

Surface Erosion: Surface erosion is the loss of soil from the surface that resulted from the overland flow of water or by wind action. There are 149 sites in the management area impacted by surface erosion. Four sites in Section A and 145

sites in Section B have been adversely impacted by surface erosion.

Headcut or Bank Erosion: Bank erosion results when steepened, exposed banks lose soil through fluvial erosional processes or wind action. Bank erosion can be increased from recreation, livestock, and wildlife use. Three sites in Section A and 68 in Section B for a total of 71 sites in the management area are impacted from bank erosion. There was an eight percent increase in the total number of sites impacted over a two year study period.

Weathering and Decay: Weathering and decay involves both chemical and mechanical weathering processes. These processes include wood decay, rock-spalling, metal corrosion, collapsing rock walls, etc. Weathering and decay is adversely affecting all 205 cultural resources in the management area. The amount and rate of weathering and decay varies between sites and even differs between features on the same site.

To summarize, number of sites impacted by certain sources of deterioration does not necessarily imply that the source of deterioration is having the most significant impact on sites. Where several sources of deterioration are indicated as affecting a site, one source may be impacting the site more than another. Also, in many cases a site is impacted by several different sources of deterioration which, when considering the cumulative affect of all the sources, can be very significant.

There is an overall downward trend in condition of the cultural resources along the river. The degree of impact varies for each particular site. Subsequent monitoring examinations in 1981 and 1982 indicated that most, if not all of the sources of deterioration documented in 1980, were continuing to impact the cultural sites.

Following is a summary list of the sources of deterioration that are accelerating the rate of deterioration of sites. The list does not include those sites that are continuing to be impacted by previously recorded sources of deterioration. Impacts due to livestock use increased 7 percent, recreation use increased 67 percent, vandalism increased 24 percent, wildlife use increased 29 percent, bank erosion increased 8 percent and weathering and decay increased 7 percent. Increases were computed from the 1980 baseline reconnaissance data.

Recreation use and vandalism are the most significant adverse sources of deterioration occurring on historic sites, and to a lesser extent, prehistoric sites. An increasing number of artifacts are being noted as missing from the sites. The location of some artifacts are being shifted to such an extent that the information on context and association of artifacts is rapidly being lost. Vandalism is continuing to be a problem and is not expected to cease.

Recreation use is also impacting cultural sites from trail use, viewing historic and archeological sites, human waste disposal, and camping. Recreation trails lead to cultural sites or cross terraces which have cultural features. The trails are having the most significant impact where the trail crosses the edge of a terrace which creates an unstable bank which in turn leads to erosion of the edge of the terrace. At those sites that are repeatedly viewed by the recreationist, permanent trails are being formed and areas around the site are being trampled. A number of holes are being innocently dug into cultural sites for the purpose of human waste disposal. Although this activity is not done maliciously, it is still damaging sites.

As the amount of recreation use increases along the river there will be an increase in the number of user conflicts for camping

areas. This may result in increased camping on terraces coincident with cultural sites or increase camping in areas which are now rarely used and therefore not receiving significant recreation impacts. Increased camping on terraces may result in areas being leveled for tents or trenches could be dug around tents. The leveling and trenching activities would adversely affect the cultural site. Some of the rock structures may also be used for camping activities which could significantly alter the structures. Also, increased recreation use of areas not used now will increase the possibility of surface artifacts being removed, trails forming, and areas around sites that are repeatedly visited being trampled.

Bank erosion is a very significant source of deterioration on several sites. The banks are eroding from natural fluvial erosional processes and have been worsened in several cases by recreation and livestock trails. The heavily used trails cross the edge of a terrace which creates an unstable bank and increases the amount of sluffing. The above average peak instantaneous flow of 130,000 c.f.s. in 1974 and 100,000 c.f.s. in 1982 damaged numerous sites and created unstable, eroding banks.

Settlement Pattern Analysis

Archeological site location is very important to cultural resource management. Since a 100 percent intensive inventory is not possible for planning purposes, cultural resource managers need to attempt to predict the possibilities of site locations in the management area. The goal of the settlement pattern analysis is to determine what environmental factors affect site location. Predicting site locations should assist the Bureau of Land Management in future planning efforts.

As previously described in Chapter IV, the cultural resource inventory in the management area was restricted to the area within

the Bureau of Land Management one-half mile corridor. Within this corridor a smaller area was examined and was usually restricted to benches, terraces, and alluvial fans. Generally areas were selected wherever an anticipated impact such as recreation use, livestock use and natural fluvial erosional processes were expected to possibly damage cultural sites. Therefore, the area inventoried is extremely restricted compared to the area and diversity of the entire canyon if one were to consider the area from the rim to the river. A description of the selected environmental attributes to measure cultural site locations follows (Table 2).

Topographic data consists of three environmental attributes; elevation, slope, and exposure. Elevations for sites are measured in feet from U.S.G.S. 7.5 minute topographic maps. Slope for cultural sites was measured on U.S.G.S. 7.5 minute topographic maps utilizing a slope indicator template.

Exposure is also measured on U.S.G.S. 7.5 minute topographic maps using a protractor to measure the angle of a line that was drawn perpendicular to the elevation contour lines through the center of the site. Site exposure was measured on a scale of 0-360 degrees to indicate possible tendencies to any of the cardinal directions. These data were later rescaled to range from 0-180 degrees with 0 degrees indicating north and 180 degrees indicating south. Measurements in between will indicate either east or west. Exposure is therefore measured on a continuum with north less than 90 degrees and south greater than 90 degrees. Since Schwede (1966:16) states "...canyon valleys offered more protection against the cold winters..." one would expect sites with prehistoric features to have a greater tendency towards a southern exposure.

The most prevalent environmental attribute in the management area is water. Both in the form of the Salmon River and other water

Table 2. Measured environmental attributes for cultural sites

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH51*	1,720	40	235	394	1	80	394	994	8,747
10IH52*	1,680	30	249	2,522	1	80	276	2,443	6,462
10IH57*	1,600	8	177	1,891	2	140	158	1,891	11,820
10IH58*	1,500	0	170	1,340	2	20	315	1,340	10,402
10IH60	1,420	12	90	1,734	2	40	315	1,734	5,043
10IH63*	1,480	12	274	709	3	30	118	709	709
10IH73	1,320	30	243	0	4	50	158	0	0
10IH88*	1,480	30	300	473	3	40	118	473	473
10IH89*	1,480	12	270	158	3	20	79	158	158
10IH379*	1,600	40	100	2,600	1	40	79	2,600	5,437
10IH383	1,420	30	80	3,073	1	20	158	3,073	9,850
10IH387	1,440	30	90	1,734	1	50	158	1,734	16,548
10IH388	1,400	40	90	1,024	1	40	197	1,024	24,980
10IH389	1,360	30	270	4,964	2	100	394	4,964	10,796
10IH390	1,240	30	135	20	3	20	197	20	20
10IH395	1,280	16	270	473	2	20	118	473	4,492
10IH396	1,360	8	180	17,572	4	40	118	11,190	17,572
10IH397	1,360	8	180	16,706	4	30	79	10,244	16,706
10IH398	1,520	30	181	9,456	4	220	788	3,231	9,456
10IH399	1,400	20	180	8,826	4	90	473	2,522	8,826
10IH401	1,300	16	335	1,733	3	20	79	1,733	1,733
10IH402	1,320	12	60	1,340	3	30	87	1,340	1,340
10IH403	1,320	12	77	1,182	3	40	236	1,182	1,182
10IH406	1,460	30	172	--	-	40	158	0	--
10IH417	1,440	40	147	5,201	1	40	276	5,201	11,584
10IH429	1,480	60	112	1,024	1	40	118	1,024	15,996

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Oistance (feet)	Horizontal Oistance (feet)	Horizontal Oistance (feet)	Horizontal Distance (feet)
10IH724	1,420	50	270	--	-	40	118	1,182	--
10IH725	1,400	12	280	2,364	1	40	158	2,364	26,398
10IH750	1,240	40	323	--	-	40	118	355	--
10IH760	1,360	40	193	--	-	50	158	3,704	--
10IH761	1,360	40	193	9,929	4	50	158	3,704	9,929
10IH766	1,320	60	223	6,540	3	40	118	6,540	6,540
10IH770	1,320	30	332	--	-	50	197	1,655	--
10IH775	1,320	16	145	--	-	40	197	2,206	--
10IH776	1,120	20	248	--	-	40	87	2,600	--
10IH777	1,320	60	231	--	-	40	79	2,994	--
10IH778	1,360	50	270	1,340	3	120	158	1,340	1,340
10IH779	1,320	30	269	--	-	40	236	4,964	--
10IH780	1,280	20	260	1,103	2	20	118	1,103	7,328
10IH782	1,240	80	192	--	-	40	158	867	--
10IH783	1,480	30	231	0	1	90	473	0	24,192
10IH784	1,440	40	241	--	-	40	79	39	--
10IH787	1,400	16	252	2,699	1	20	158	2,679	21,670
10IH788	1,440	40	292	--	-	30	158	630	--
10IH789	1,440	20	270	867	1	40	158	867	7,565
10IH791	1,480	40	128	--	-	40	79	0	--
10IH792	1,430	20	69	3,704	1	30	118	3,704	11,899
10IH793	1,440	20	71	4,176	1	30	158	4,176	11,820
10IH794	1,420	12	144	236	1	30	158	236	13,711
10IH796	1,400	30	187	1,655	1	50	95	1,655	27,344
10IH797	1,440	30	213	--	-	40	118	1,182	--
10IH889*	1,520	30	266	--	-	80	473	2,443	--

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH1053	1,400	80	35	1,655	3	160	236	1,655	1,655
10IH1054	1,430	40	95	1,734	1	50	118	1,734	17,494
10IH1160	1,400	30	132	315	1	40	79	315	15,130
10IH1161	1,240	60	210	--	-	50	118	552	--
10IH1162	1,200	80	216	--	-	20	39	867	--
10IH1163	1,360	30	41	10,638	4	20	355	4,334	10,638
10IH1164	1,200	80	198	--	-	40	39	1,734	--
10IH1165	1,300	60	37	--	-	80	118	1,812	--
10IH1180	1,240	30	208	--	-	40	315	552	--
10IH1181	1,220	50	236	--	-	40	39	236	--
10IH1182	1,220	50	243	--	-	50	158	473	--
10IH1183	1,220	30	180	--	-	50	158	0	--
10IH1184	1,280	60	190	315	2	80	158	315	315
10IH1185	1,400	50	211	1,655	2	200	394	1,655	1,655
10IH1186	1,300	30	280	--	-	90	394	0	--
10IH1187	1,400	100	223	--	-	200	276	1,182	--
10IH1188	1,500	40	23	--	-	320	473	867	--
10IH1189	1,320	50	40	--	-	20	59	6,540	--
10IH1190	1,360	40	39	--	-	90	315	5,122	--
10IH1191	2,020	40	210	7,801	1	680	1,024	7,801	22,222
10IH1192	1,400	30	180	--	-	90	552	2,837	--
10IH1193	1,520	20	227	--	-	200	473	6,422	--
10IH1194	1,360	8	180	--	-	10	15	11,111	--
10IH1195	1,160	30	280	--	-	50	158	3,310	--
10IH1196	1,160	30	260	5,595	2	50	158	5,595	9,062
10IH1197	1,120	20	253	--	-	20	158	5,201	--

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH1198	1,120	20	278	3,782	2	50	158	3,310	8,038
10IH1199	1,280	40	198	5,516	3	30	79	20	5,516
10IH1200	1,280	40	90	--	-	20	79	3,782	--
10IH1201	1,360	30	88	--	-	90	315	1,182	--
10IH1202	1,480	30	125	0	3	250	1,694	0	0
10IH1203	1,460	30	169	394	3	250	552	394	394
10IH1204	1,320	80	265	--	-	40	39	1,970	--
10IH1205	1,280	80	35	--	-	50	118	1,891	--
10IH1206	1,320	60	64	--	-	80	158	709	--
10IH1207	1,280	30	48	552	2	30	79	552	6,462
10IH1208	1,300	40	91	--	-	40	158	1,418	--
10IH1209	1,300	40	76	--	-	40	158	1,694	--
10IH1210	1,280	20	96	4,570	3	20	79	4,570	11,032
10IH1211	1,280	40	55	0	3	40	158	0	6,934
10IH1212	1,320	30	258	709	2	20	158	709	6,540
10IH1213	1,320	40	266	3,152	2	40	118	3,152	8,826
10IH1214	1,320	40	300	--	-	40	197	3,231	--
10IH1215	1,340	16	73	118	3	60	355	118	118
10IH1216	1,360	16	275	--	-	80	158	630	--
10IH1217	1,400	8	270	1,418	3	100	473	1,418	1,418
10IH1218	1,440	8	238	2,443	3	130	473	2,443	2,443
10IH1219	2,280	12	230	1,812	4	1,000	158	1,812	1,812
10IH1220	1,360	20	264	473	3	40	158	473	473
10IH1221	1,280	40	265	--	-	40	158	3,782	--
10IH1222	1,280	50	242	--	-	40	39	30	--
10IH1223	1,320	50	272	--	-	40	158	2,600	--

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH1224	1,280	50	78	--	-	50	118	158	--
10IH1225	1,300	20	89	4,098	2	40	236	4,098	9,929
10IH1226	1,320	50	280	--	-	60	236	3,940	--
10IH1227*	1,440	20	240	--	-	40	158	2,522	--
10IH1228*	1,520	20	155	--	-	20	79	3,349	--
10IH1229*	1,660	16	277	1,261	1	120	788	1,261	6,934
10IH1230*	1,640	80	319	--	-	130	236	1,812	--
10IH1231*	2,000	50	293	--	-	400	158	158	--
10IH1232*	1,660	20	235	--	-	40	158	158	--
10IH1233*	2,120	50	235	1,655	2	450	670	1,655	15,602
10IH1234*	1,840	30	321	--	-	15	47	1,418	--
10IH1235*	1,760	40	42	--	-	80	197	473	--
10IH1237	1,120	20	288	6,146	3	90	394	6,146	6,146
10IH1238	1,100	30	309	5,516	3	20	158	5,516	5,516
10IH1239	1,080	20	282	--	-	40	394	6,856	--
10IH1240	1,080	12	293	--	-	20	158	5,595	--
10IH1241	1,000	30	270	552	2	40	158	552	34,672
10IH1242	1,240	60	230	--	-	90	158	4,728	--
10IH1243	1,430	30	283	--	-	40	197	0	--
10IH1244	1,440	40	249	--	-	50	197	79	--
10IH1245	1,440	30	207	--	-	40	118	1,418	--
10IH1246	1,500	50	165	1,615	1	130	315	1,615	27,501
10IH1247	1,440	30	270	1,891	1	50	158	1,891	16,942
10IH1248	1,400	60	264	--	-	40	79	433	--
10IH1249	1,440	30	270	--	-	30	142	4,413	--
10IH1250	1,440	30	292	946	1	30	158	473	6,777

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH1251	1,440	40	38	--	-	50	236	5,358	--
10IH1252	1,440	40	32	--	-	90	315	1,694	--
10IH1253	1,740	30	257	236	1	380	749	236	--
10IH1254	1,400	60	231	--	-	80	236	0	--
10IH1255*	1,840	30	321	--	-	30	79	1,261	--
10IH1256	1,480	16	90	--	-	30	236	867	--
10IH1257	1,480	16	116	--	-	50	394	2,128	--
10IH1258	1,420	30	82	--	-	20	55	2,443	--
10IH1259	1,420	30	67	--	-	30	236	3,073	--
10IH1260	1,440	12	90	4,807	1	40	307	4,807	10,796
10IH1261	1,420	20	96	2,403	1	40	142	2,403	12,450
10IH1262	1,420	16	120	--	-	30	118	79	--
10IH1263	1,420	20	100	--	-	50	158	552	--
10IH1264	1,440	20	119	--	-	40	158	1,497	--
10IH1265	1,420	20	146	--	-	50	158	79	--
10IH1266	1,480	30	155	--	-	90	236	236	--
10IH1267	1,420	40	90	--	-	40	79	315	--
10IH1268	1,800	60	112	--	-	400	867	1,103	--
10IH1269	1,400	60	90	709	1	30	158	709	23,640
10IH1270	1,380	30	64	394	1	20	79	394	24,270
10IH1271	1,400	30	90	--	-	40	158	2,049	--
10IH1272	1,520	12	112	--	-	90	670	79	--
10IH1273	1,240	40	27	--	-	50	79	1,576	--
10IH1275*	1,620	20	297	--	-	20	79	3,073	--
10IH1279	1,320	80	264	--	-	40	39	2,206	--
10IH1280	1,280	80	226	--	-	40	79	236	--

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10IH1284	1,200	40	359	--	-	40	79	39	--
10IH1285	1,200	80	280	--	-	80	79	315	--
10IH1299*	1,620	20	98	--	-	40	236	0	--
10IH1302	1,400	40	259	315	2	140	433	315	6,698
10IH1303	1,360	60	41	2,837	3	120	158	2,837	2,837
10IH1304	1,280	60	55	2,600	3	80	79	2,600	2,600
10IH1305	1,280	60	282	6,698	3	260	709	6,698	6,698
10IH1308	1,320	20	180	9,062	4	40	118	2,679	9,062
10IH1312	1,340	30	150	0	4	40	315	0	0
10IH1314	1,320	20	180	--	-	20	39	2,600	--
10IH1317	1,260	50	8	--	-	20	39	867	--
10IH1319	1,200	60	101	--	-	40	79	3,152	--
10IH1328	1,020	20	214	--	-	40	79	3,940	--
10IH1329	1,380	20	180	--	-	30	315	8,668	--
10LE18	1,120	30	135	79	2	40	236	79	5,752
10LE19	1,080	20	160	867	2	10	79	867	4,492
10LE20	1,080	20	175	--	-	10	79	946	--
10LE21	1,160	16	145	709	2	80	315	709	3,152
10LE22	1,120	12	222	--	-	80	158	1,576	--
10LE46	1,400	30	165	--	-	320	946	1,261	--
10LE47	1,140	20	167	473	2	20	79	473	3,861
10LE48	1,140	12	177	--	-	90	473	1,497	--
10LE49	1,120	30	159	--	-	40	79	315	--
10LE50	1,140	20	158	552	2	60	158	552	4,886
10NP113	1,040	20	115	--	-	20	118	4,058	--
10NP116	1,040	30	136	5,752	3	20	236	5,752	5,752

Table 2. (Continued)

Site	Elevation (feet)	Slope (percent)	Exposure (degrees)	Water					
				Stream Order		Salmon River		Primary	Streams (anadromous)
				Horizontal Distance (feet)	Order Number	Vertical Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)	Horizontal Distance (feet)
10NP117	1,040	30	124	5,122	3	20	236	5,122	5,122
10NP119	1,120	40	149	--	-	80	394	4,176	--
10NP120	1,040	40	129	3,546	3	40	236	3,546	3,546
10NP122	1,080	40	145	2,522	3	50	158	2,522	2,522
10NP123	1,080	16	114	3,704	3	20	79	3,704	3,704
10NP124	1,080	30	112	4,570	3	20	158	4,570	4,570
10NP125	1,080	30	153	4,413	3	10	79	4,413	4,413
10NP128	1,070	16	102	0	3	20	118	0	0
10NP224	1,180	30	133	5,358	3	60	236	5,358	5,358
10NP225	1,040	50	16	3,152	2	20	158	3,152	21,670
10NP226	1,080	12	70	1,418	2	90	552	1,418	23,246
10NP227	980	16	62	--	-	8	40	1,182	--
10NP228	1,000	60	116	--	-	25	40	158	--
10NP229	1,060	20	153	6,304	3	20	79	6,304	6,304
10NP230	1,040	80	89	6,462	3	40	79	6,462	6,462
10NP231	1,040	30	99	4,728	3	20	118	4,728	4,728
10NP232	1,120	30	111	4,334	3	100	473	4,334	4,334
10NP233	1,040	20	110	3,231	3	20	118	3,231	3,231
10NP234	1,080	30	112	--	-	30	158	4,964	--
10NP235	1,080	30	160	--	-	10	39	4,019	--
10NP236	1,040	50	96	5,674	3	40	118	5,674	9,220
10NP262	1,000	50	136	1,182	2	80	79	1,182	36,248
10NP263	960	40	166	--	-	40	158	3,546	--

* Sites located in Section A.

sources that are available year-round. Four different water related environmental attributes are addressed.

Vertical and horizontal distance is measured in feet on U.S.G.S. 7.5 minute topographic maps to determine if occupants in the management area oriented themselves any certain distance from the Salmon River. The second environmental attribute measured is primary water sources other than the Salmon River. These are water sources that are available on a year-round basis such as springs or perennial streams. Horizontal distance was measured on U.S.G.S. 7.5 minute topographic maps.

Schwede's (1966) study of Nez Perce settlements in the nearby Clearwater River basin indicated that 61 percent of the villages and 62 percent of the recorded camps are within one mile of 7th order streams, 8 percent of the villages are within one mile of 8th order streams and 30 percent of the villages are within one mile of 3-5 order streams. Thirty-eight percent of Nez Perce camps are within one mile of 2-6 order streams. Therefore, the third water related environmental attribute selected to examine site location in the management area was the horizontal distance to streams. The distance was measured on U.S.G.S. 7.5 minute topographic maps from the site to the nearest perennial stream and the distance and stream order was then recorded. All perennial streams were ordered using the method outlined by Horton (1945).

The fourth water related environmental attribute examined is the horizontal distance of a site to a perennial stream with anadromous fish runs. These are streams that are known to currently have anadromous fish runs and it is unknown whether these streams would have supported fish runs in the past. Also, some streams that do not currently have anadromous fish runs may have in the past. All measurements were made on U.S.G.S. 7.5 minute topographic maps. Information on stream with current anadromous fish runs was gathered from Bureau of Land Management fisheries inventory files.

Comparitive distributions of elevation and sites with prehistoric features; sites with historic features; and sites with prehistoric features with depressions is displayed in Figure 4. The majority of the cultural sites with prehistoric features are located between 960 and 1,520 feet. The largest number of sites with prehistoric features are located between the elevations of 1,360 and 1,440 feet. Sites with historic features also reflect the same general pattern as that of the prehistoric features. The majority of sites with historic features are between the elevations of 960 and 1,520 feet. The largest number of sites with historic features are also located between the elevations of 1,360 and 1,440 feet. Sites with prehistoric features with depressions show a slightly different tendency than all sites with prehistoric features. The majority of these sites are also distributed between 960 to 1,520 feet but the sites are distributed more evenly within this range with no apparent preference to elevation.

Comparitive distributions of slope and sites with prehistoric features; sites with historic features; and sites with prehistoric features with depressions is indicated in Figure 5. The horizontal axis of the figure is divided to correspond to the intervals found on the slope indicator template which was used in determining the slope for cultural sites. Cultural sites with prehistoric features with a slope of 20 to 30 percent predominated. There is also a greater number of these sites below 20 percent than there are above 30 percent. Cultural sites with historic features also are concentrated in the 20-30 percent category as do the sites with prehistoric features. Sites with historic features had slightly more sites on slopes greater than 30 percent and actually there are fewer recorded sites less than 20 percent. Cultural sites with prehistoric features with depressions also had the greatest number of sites in the 20 to 30 percent range. The vast majority of these sites are located between the 12 to 40 percent range.

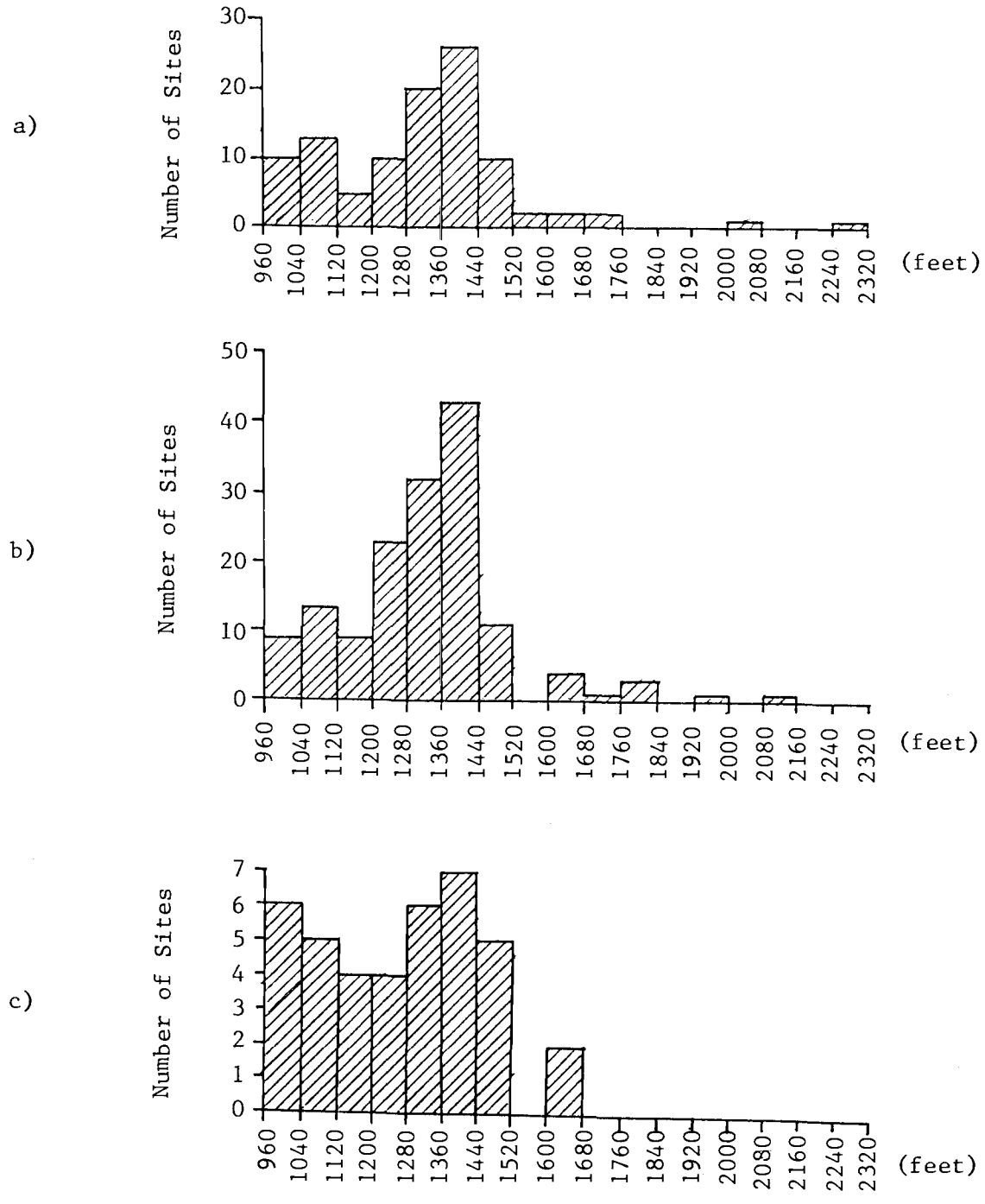
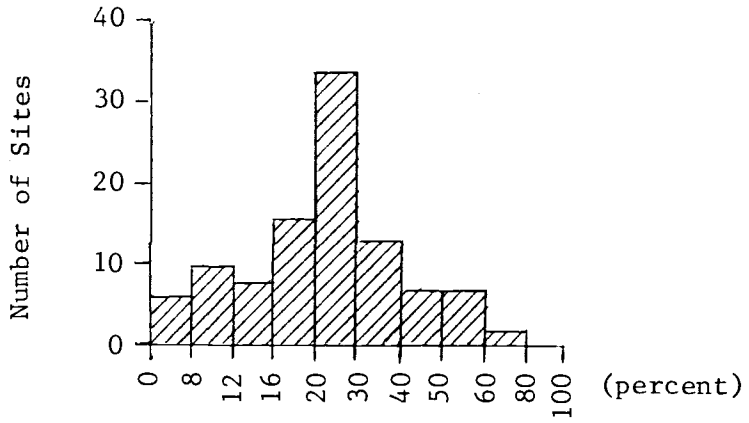
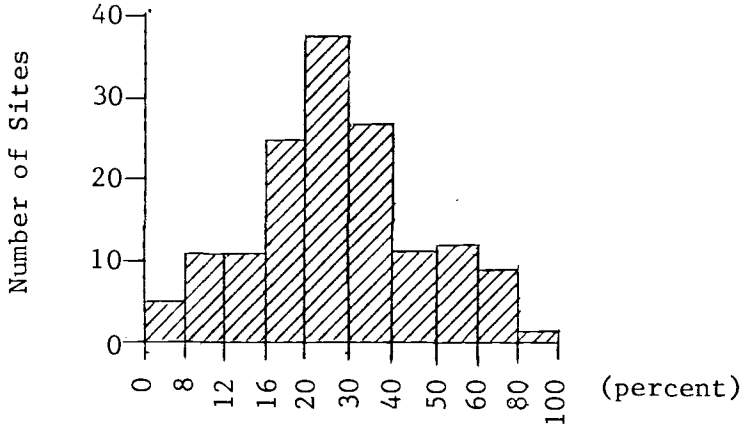


Figure 4. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with elevation.

a)



b)



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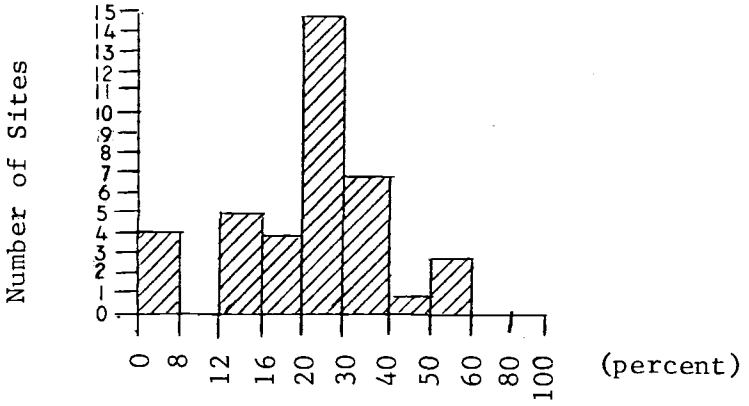


Figure 5. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with slope.

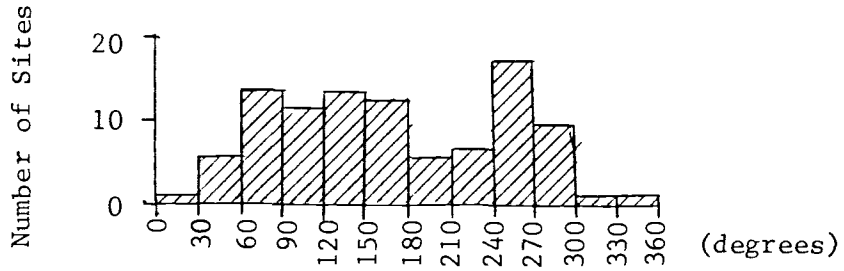
It must be realized that these slope data for all sites were obtained from maps and that data on the actual slope of the site were not recorded during the inventory. The actual slope on which these sites have developed is probably between 0-12 percent but these areas are typically so small they are not reflected in the topographic lines on the U.S.G.S. quadrangle map.

Comparitive distributions of exposure and sites with prehistoric features; sites with historic features; and sites with prehistoric features with depressions is displayed in Figure 6. The number of cultural sites with prehistoric features were generally evenly spread between 30 to 300 degrees with an unexplainable slight decrease in the number of sites between 180 to 240 degrees. The number of cultural sites with historic features are also fairly evenly spread between 30 to 300 degrees and there is again a decrease in the number of sites this time between 180 to 210 degrees. The number of cultural sites with prehistoric features with depressions portrays a slightly different pattern. Approximately one-half the sites have an exposure ranging from 90 to 180 degrees. There is also a sharp increase in the number of sites between 240-270 degrees.

Exposure was rescaled as previously described in this chapter for sites with prehistoric features; sites with historic features; and sites with prehistoric features with depressions and these are shown in Figure 7. The rescaled data indicate that the majority of cultural sites are all from 90 to 180 degrees which indicates a southern exposure.

Horizontal distance was measured to the nearest perennial stream and the order number was then recorded only for sites with any prehistoric feature. For those sites that were measured to first order streams the mean horizontal distance is 2,049 feet; second order streams is 1,693 feet; third order streams is 3,067 feet; and

a)



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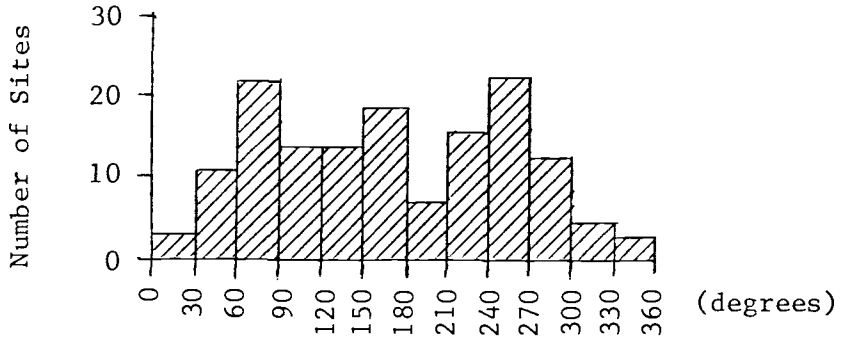

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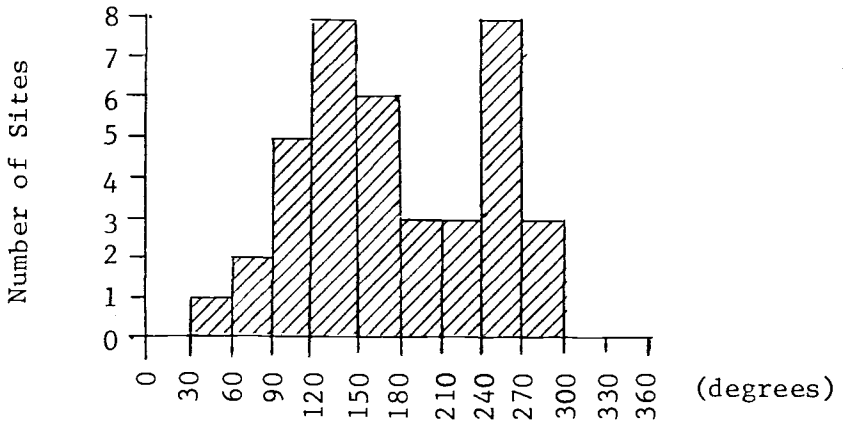


Figure 6. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with exposure.

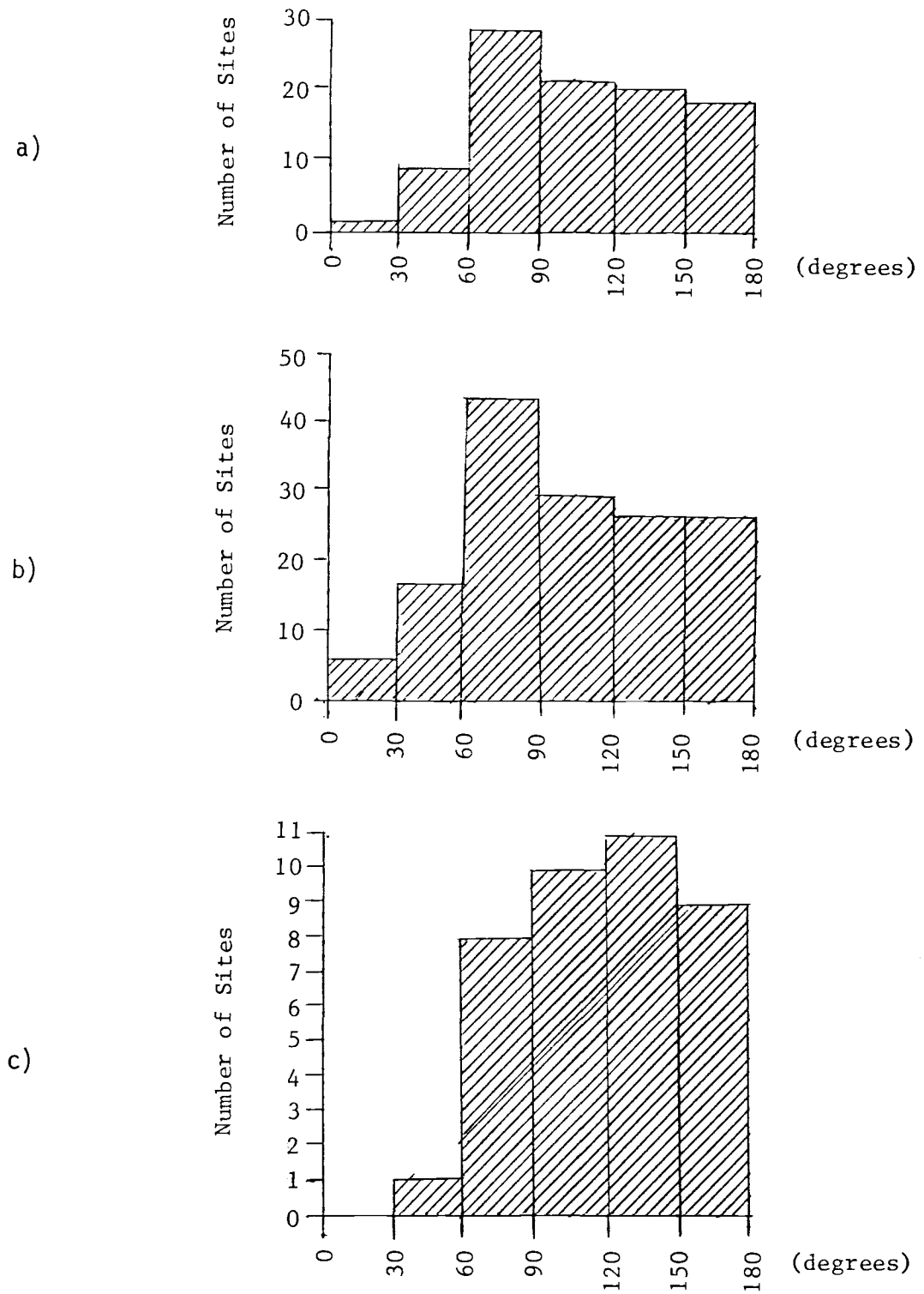


Figure 7. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with exposure (rescaled).

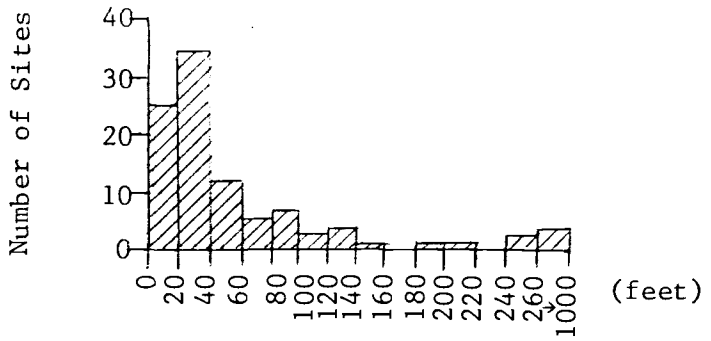
fourth order streams is 8,400 feet. There are no streams higher than a fourth order stream entering the Salmon River in the management area except for the Little Salmon River but it is located on private land and no cultural sites are located on Bureau of Land Management land near the river. The mean horizontal distance to first through third order streams is less than one mile. Distance to fourth order streams is considerably higher than the other streams. The mean horizontal distance for sites nearest to first, second, and third order streams is 2,270 feet (0.4 mile). The mean for all four measured stream orders is 3,802 feet (0.7 mile).

Horizontal distance was also measured to the nearest perennial stream for sites with prehistoric features with depressions. The mean distance for first order streams is 1,568 feet; second order streams is 1,373 feet; third order streams is 3,279 feet; and fourth order streams is 12,424 feet. The mean distance for all four orders is 4,661 feet and the mean distance for first through third orders is 2,073 feet.

An examination of cultural sites with prehistoric features with depressions (which could be considered villages) shows that 84 percent are located less than 1 mile from first to fourth order streams. Schwede (1966) found that 30 percent of the villages in the Clearwater Basin were located within 1 mile of third to fifth order streams. She had located most of the villages within one mile of seventh and eighth order streams. Therefore, the majority of the sites in the management area that could be considered villages appear to be located closer to the lower order streams. Horizontal distance to the Salmon River is discussed later in this chapter.

Vertical distance from cultural sites to the Salmon River is compared to Figure 8. Mean vertical distance for all sites is 71 feet. There is a very strong tendency of sites to be located

a)



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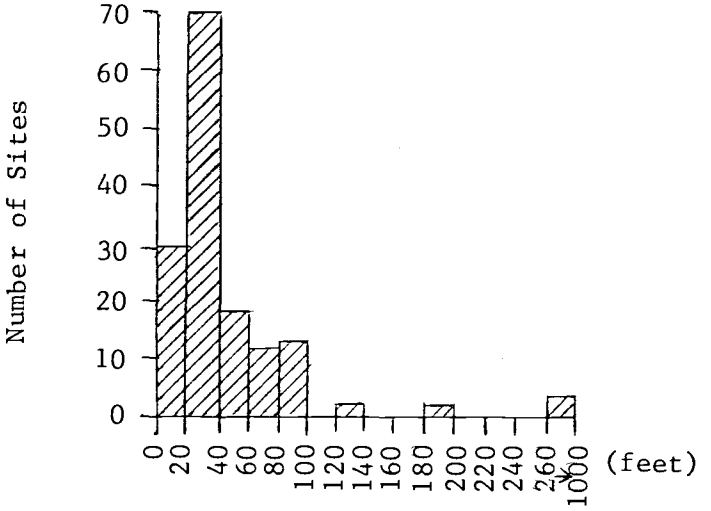


c)

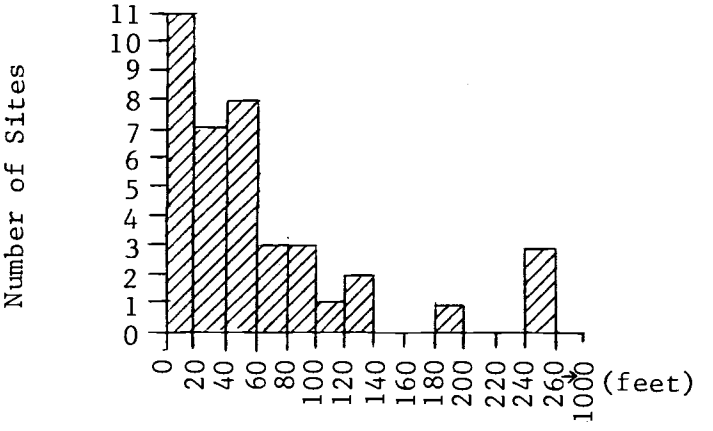


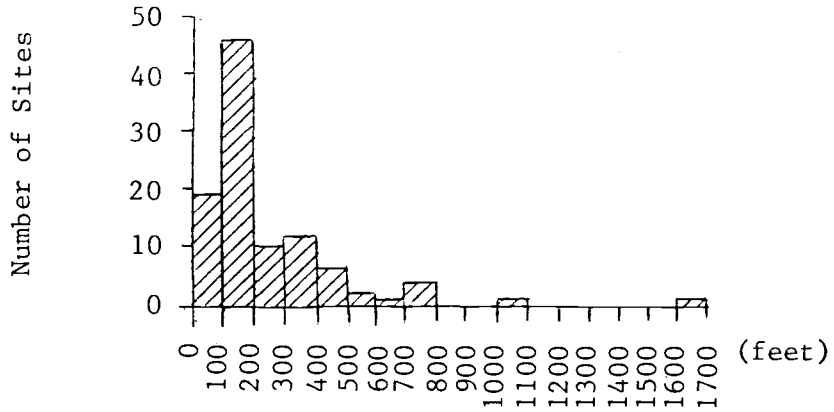
Figure 8. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with vertical distance to the Salmon River.

between 0 to 140 feet. Ninety-one percent of cultural sites with prehistoric features; 90 percent of the sites with prehistoric features with depressions; and 96 percent of sites with historic features all fall within this range. A possible explanation for this is that inventory crews very rarely exceeded this distance while conducting the inventory since areas used by recreationists, livestock and areas where fluvial erosional processes were occurring were the prime focus of the inventory. Fifty-nine percent of the cultural sites with prehistoric features are located between 0-40 feet; 46 percent of the cultural sites with prehistoric features with depressions are located within this area and 66 percent of the sites with historic features are located between 0-40 feet.

Horizontal distance from cultural sites to the Salmon River is compared in Figure 9. Mean horizontal distance for all sites is 216 feet. Ninety-eight percent of all sites with prehistoric features; 97 percent of sites with prehistoric features with depressions; and 99 percent of sites with historic features are located between 0-800 feet from the Salmon River. Sixty-four percent of sites with prehistoric features; 47 percent of sites with prehistoric features with depressions; and 72 percent of sites with historic features are located between 0-200 feet. The high percentage of cultural sites between 0-800 feet is probably indicative of the area covered by the inventory crews since the crews would seldom have went much farther. But I also believe this is probably an accurate representation of the site density near the river since the majority of the historic use was related to mining of the river gravels and prehistoric habitation use consisted of use of the terraces. Both of these areas are primarily confined to within 800 feet of the river.

Horizontal distance from cultural sites to primary water sources (those other than the Salmon River including springs or perennial streams) is compared in Figure 10. Mean horizontal distance for

a)



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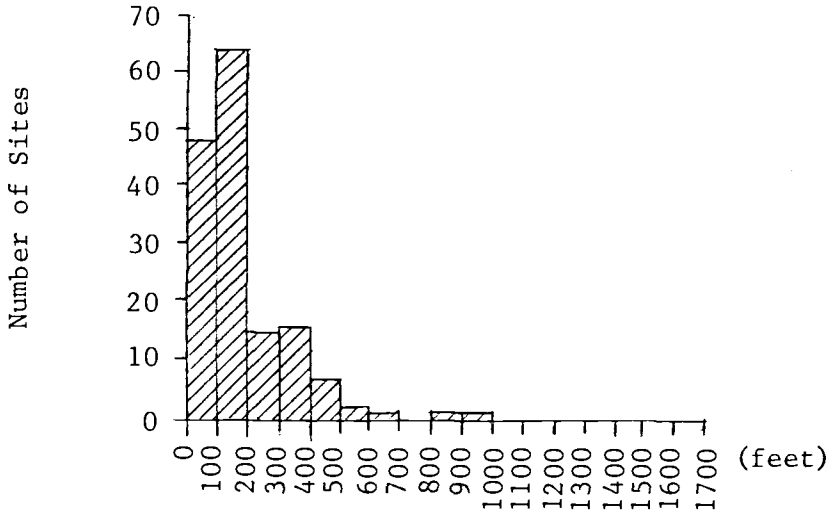


c)

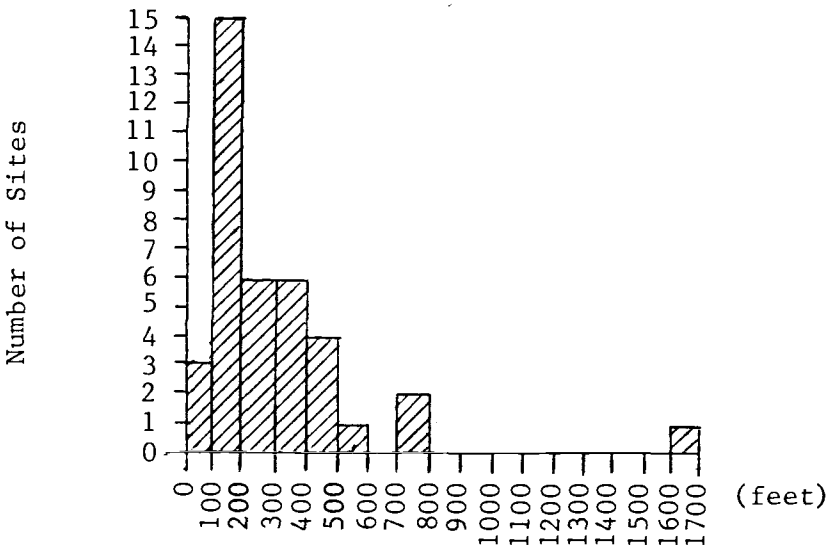


Figure 9. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with horizontal distance to the Salmon River.

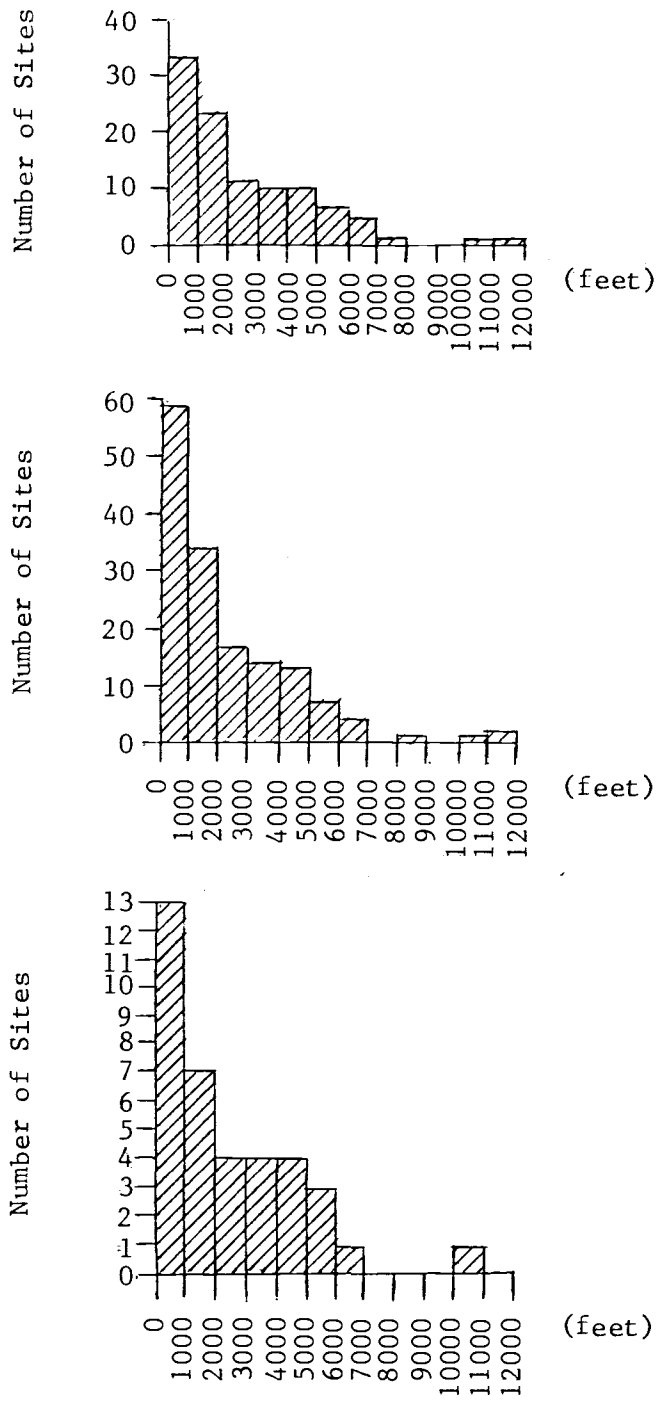
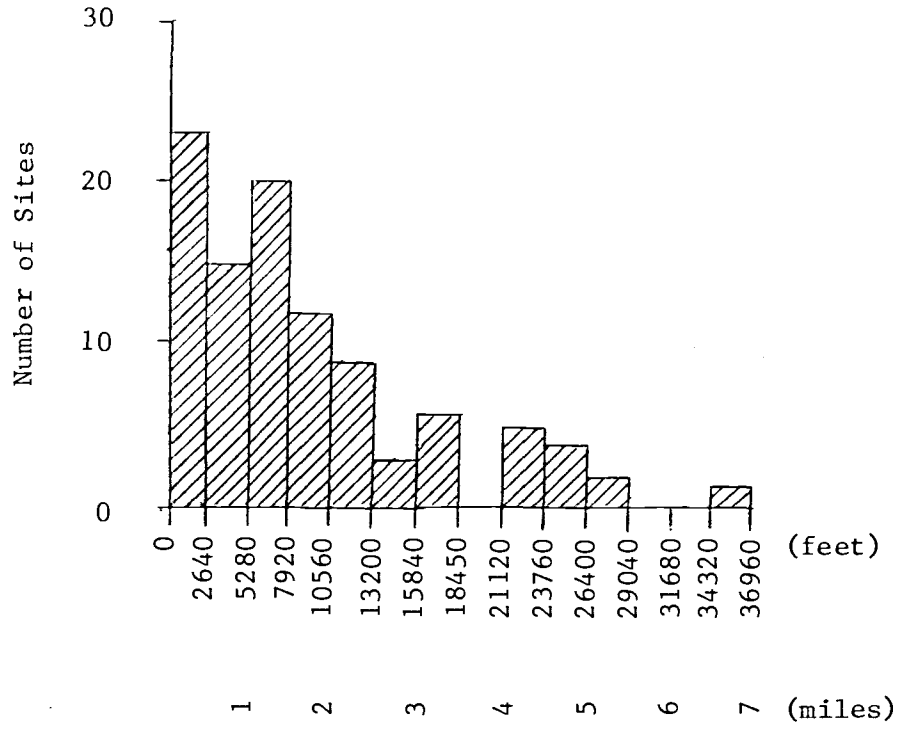


Figure 10. Comparison of cultural sites with a) prehistoric features, b) historic features, and c) prehistoric features with depressions with horizontal distance to primary water sources.

all sites is 2,265 feet. Ninety-seven percent of all sites with either prehistoric features, prehistoric features with depressions, or sites with historic features are located within 7,000 feet (1.3 miles) of primary water sources. An examination of sites within 5,000 feet (0.95 mile) of primary water shows that 85 percent of sites with prehistoric features; 86 percent of the sites with prehistoric features with depressions and 90 percent of sites with historic features fall within this range. Further examination of the figure shows that 55 percent of sites with prehistoric features; 54 percent of sites with prehistoric features with depressions; and 61 percent of cultural sites with historic features are located within 2,000 feet (0.4 mile). Therefore, cultural sites in the management area are located in close proximity to permanent water sources.

Horizontal distance from cultural sites with prehistoric features to streams with anadromous fish runs is shown in Figure 11. Mean horizontal distance for all sites with prehistoric features is 8,920 feet (1.7 miles). Mean horizontal distance for sites with prehistoric features with depressions is 7,901 feet (1.5 miles). Thirty-seven percent of sites with prehistoric features and 47 percent of sites with prehistoric features with depressions are located within 1 mile of the stream; 67 percent of sites with prehistoric features and 76 percent of sites with depressions are located within 2 miles of these streams; and 80 percent of sites with prehistoric features and 92 percent of sites with prehistoric features with depressions are all located within 3 miles of these streams. Cultural sites with prehistoric features with depressions show a tendency to be closer to streams with anadromous fish runs. The mean horizontal distance for cultural sites with prehistoric features with depressions is about 1,000 feet less than all sites with prehistoric features. Therefore, sites with prehistoric features with depressions have a tendency to be closer to streams with anadromous fish runs.

a)



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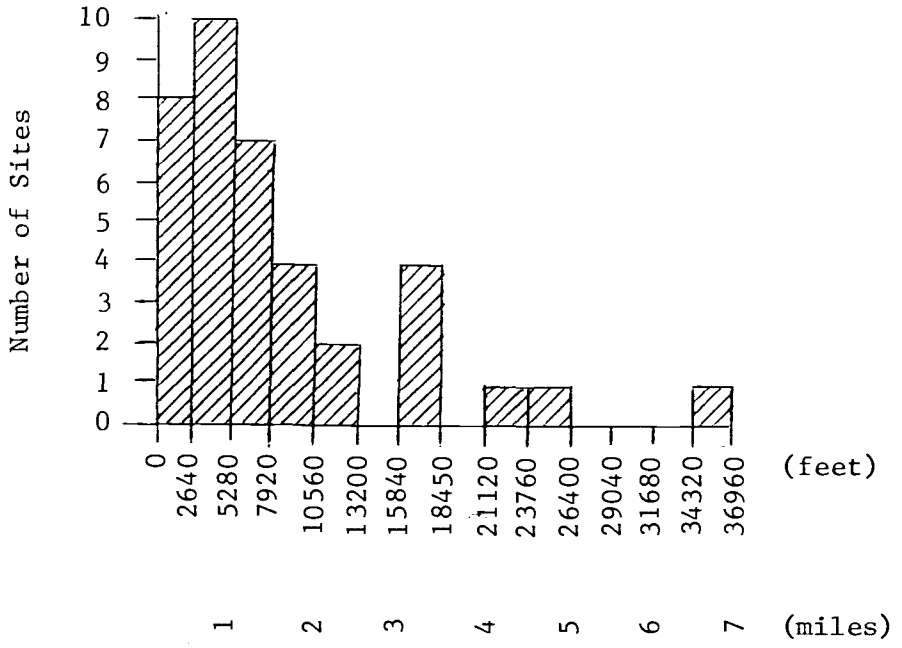

Figure 11. Comparison of cultural sites with a) prehistoric features, and b) prehistoric features with depressions with the horizontal distance to streams with anadromous fish runs.

A summary of all the measured environmental attributes for cultural sites in the management area follows: the majority of the cultural sites are located between the range of elevations from 960 to 1,520 feet; the majority of cultural sites are located on slopes of 20 to 30 percent; the sites have a strong tendency to a southern exposure; the mean horizontal distance for cultural sites with prehistoric sites to first to third order streams is less than one mile (the mean is 0.4 mile); the mean vertical distance above the Salmon River for all cultural sites is 71 feet; mean horizontal distance for all sites from the Salmon River is 216 feet; mean horizontal distance to primary water sources is 2,265 feet for all cultural sites; and mean horizontal distance to streams with anadromous fish runs is 8,920 feet (1.7 miles) and sites with prehistoric features with depressions is 7,901 feet (1.5 miles).

The results of the measured environmental data should assist the Bureau of Land Management in project planning as well as general land use plans. The ability to determine possible site locations should allow better project planning and should assist in the development of alternatives for project locations. The ability to determine possible site locations and density for uninventoried areas should be very beneficial for land use plans and the subsequent land use allocations.

CHAPTER VI. CULTURAL RESOURCE MANAGEMENT MEASURES

Introduction

This chapter provides a discussion of the cultural resource management measures which are suitable for use in managing the Lower Salmon River. For this discussion the management measures are presented as either physical or administrative measures. Physical protection measures involve direct and indirect actual on-the-ground activities that protect the resource. Direct methods of protection involve the actual removal or modification of the site to maintain the integrity of the material remains and the geographic setting of the site. Indirect physical protection refers to those methods that do not involve the physical modification of the site. Administrative measures involve a program of administrative actions both in written and oral forms.

The objective of all management measures is to maintain historic and aesthetic integrity, preserve socio-cultural and scientific information, enhance heritage values and ensure user safety. When developing physical or administrative measures the guidelines listed below will be followed to reach the above objective:

A. Where the rationale for physical protection is the preservation of scientific information, care must be taken to ensure that the measures and methods used do not disturb an equal or greater amount of information than would be lost by allowing the processes of deterioration to take their natural course.

B. Ensure that the materials used to conserve, stabilize, or restore the resource are compatible with the original fabric and historic integrity of the cultural resource.

C. The physical environment should be protected from incompatible land use activities by consideration of an appropriate buffer area. The immediate setting of the cultural resource must be managed in a manner consistent with the protection and management objectives.

D. Long-term maintenance and monitoring needs should be considered in project planning. It is possible that what may appear initially to be an adequate plan may be impractical in light of long-term maintenance requirements.

A cultural site must meet one or more of the following requirements to be considered for site-specific protection measures:

A. The site has been or is being disturbed. Disturbance can result from any of the sources of deterioration.

B. The site is the only remaining site depicting a site type. The site can be in poor, good, or excellent condition.

C. A specific era or activity is represented by the site. For example, there are a number of rock structures along the river but there may only be a few which date from the 1860s; possibly only one structure that represents an attempt at homesteading; and only several structures reflect the Chinese activity in the management area.

D. A variety of features that represent a specific activity or an assortment of activities at one site are present.

E. The site is suitable for interpretation. The amount of background information that is known about a specific activity or era represented by the site will be considered before the

site is chosen for interpretive purposes. Interpretive guidelines are discussed later in this chapter.

Specific types of physical and administrative measures that are technically feasible for the Lower Salmon River are outlined below. This list is not all inclusive as there are undoubtedly a number of other actions that could be implemented. The list of management measures will be modified as specific problems are noted in the future. Environmental assessments may be necessary for site-specific actions and these should be evaluated on a case-by-case basis. Some site-specific actions should be developed with input from other staff specialists.

Physical Protection Measures

Structural Stabilization

Structural stabilization is used to reduce the deterioration of structures. Techniques involve the use of chemical, mechanical, or structural elements. Maintaining stone and wooden structures involve identifying the type of material used, sources of deterioration, and the condition of the material. The actual stabilization of a site must be designed for that site. Therefore, before stabilization is conducted a site plan should be developed.

Vegetative Propagation

Vegetative manipulation involves the propagation of species of plants to the cultural site. Poison ivy (Rhus radicans) could be introduced to some of the cultural properties. Although this may seem harsh, no sites in the management area have been vandalized where there is an abundance of poison ivy. The

introduction of poison ivy would be site specific to those sites being extensively vandalized. Before poison ivy is introduced to a site, detailed mapping would be completed and the implications of such a planting evaluated.

Other plants may be introduced to sites that are sod forming and non-palatable for livestock grazing. This type of plant would be used in stabilizing eroding sites that have been damaged by recreation use, livestock use and/or natural erosion. Appropriate seed mixtures will be chosen utilizing information from Clearwater RC and D Area (1979), Hafenrichter et al. (1979), and Area staff recommendations.

Buried Obstructions

Where vandalism is a repeated problem, one method of deterring such activity is to lay chain link fence on the ground and cover the fence with a layer of topsoil. The topsoil would be seeded with an appropriate grass seed mixture. Detailed maps and photographs of the site would be finished before the project is begun.

Covering a site with concrete is also an alternative. This will be particularly effective in a rockshelter. An effort should be made to have the concrete blend in with the surroundings and not be a visual intrusion. Also, detailed mapping and photographs would be completed before the site is covered.

Recovering Cultural Resource Data

When cultural resources cannot be preserved in place, data recovery techniques must be implemented. These techniques include archeological data recovery, relocation, and detailed

recordation. The techniques used should conform to current archeological standards.

Before a major data recovery project is initiated on an individual site, the depth and material content of the site should be ascertained. This information would be used to prepare a detailed data recovery plan including an estimate of the labor in person-days to accomplish the planned action.

Archeological data recovery techniques include the excavation and/or controlled surface collection of sites. Excavation of a site would be conducted to salvage available information before it is lost. Surface collection of artifacts would involve the completion of maps, photographs, drawings, and narrative before the artifacts are removed. The extent of the surface mapping would be commensurate with the amount of disturbance that has occurred on a site. For example, if monitoring studies have shown that artifacts have been repeatedly moved from one location of the site to another, then the surface mapping would probably be less detailed than that of a site that had not been disturbed. Appropriate data recovery techniques are based on a formal research design carried out by qualified, trained personnel. Reports would be prepared detailing the techniques used, the reason why the technique was chosen and an analysis of the data recovered.

Relocation involves the moving of artifacts to another location without destroying the resource. This could include mining equipment, farm machinery, etc.

Detailed recordation would document the important features of the site. Surface features and dimensions of the site would be mapped, photographed and narrative descriptions prepared.

Artifact Affixing and Coding

Artifact affixing leaves the artifact in place but it is permanently secured to prevent removal. Affixing would be done carefully so as not to destroy the artifact. This would be done for larger machinery such as mining or farm equipment and probably not be used for prehistoric artifacts.

Artifact coding involves assigning permanent catalog numbers and having the artifacts etched with the numbers. Artifacts that are stolen and found at a later time could be traced back to public land for prosecution purposes.

Electronic Surveillance

The placement of cameras at sites that are continually vandalized would aid in apprehention and prosecution. Alarm systems would also be effective depending upon the response time of the person answering the summons. Electronic surveillance would be completed with guidance from Idaho State Office personnel.

Patrolling

Patrols could be conducted to monitor sites in the river corridor. All modes of transportation including aircraft could be used. Patrols would be useful for general surveillance as well as specific areas along the river. Fragile and accessible cultural properties would be examined as often as possible thoughout the year.

Barriers

Fences, gates, boulders as well as other barriers would provide an effective means to prevent movement of vehicles,

humans and animals on a site. The barriers can be either off-site or on-site. The selection of designs and materials must be chosen so as not to intrude upon the visual character of the site or damage the site.

Fire Control

Fire control activities would involve presuppression, suppression, and postsuppression actions. Presuppression activities are primarily preventative in nature and may include treatment of wooden structures with fire retardent; reducing the amount of litter; reduction of fuel; construction of fuel breaks; and site-specific fire-action plans to prevent destruction of the cultural resources. Fire-action plans may include other items such as restricting campfires in the vicinity of cultural resources, etc. Postsuppression activities would include recommendations for restoration, rehabilitation, or other physical protection measures that may be necessary after suppression activities.

Erosion Control

Erosion can be controlled both off-site and on-site. Wind breaks, diversion dams, revegetation, improved drainage and catch basins as well as other measures can reduce erosion. Primary emphasis should be placed on stabilizing eroding banks along the Lower Salmon River. Reeves and Roelofs (1982) have reviewed such methods as the use of rock jetties, rock riprap, revegetation and earth walls to prevent bank erosion. Sheeter and Claire (1981) successfully used juniper riprap to stabilize an eroding streambank. Keown et al. (1977) has reviewed a number of stabilization techniques including revegetation, riprap, fences, gabions, logs and erosion-control matting. The effectiveness of several bank stabilization methods are

summarized in USDI (1978). Clearwater RC and D Area (1979) also summarizes different methods of erosion control.

Proper recording and recovery of information must be accomplished prior to the implementation of the protection measure so that the impact of the action is minimal to the cultural resource.

Signing

Signing can be in two forms: interpretive or regulatory. Interpretive signs can be placed at entry points to the river or on specific sites that have interpretive potential. When interpreting sites, caution must be used so as not to destroy the integrity of the site. The signs should stress the values and importance of preserving the cultural values of the site or sites along the river. Antiquity signs (Bureau of Land Management Sign S-53) may also be placed at entry points or specific sites to inform visitors of legal mandates that protect cultural resources.

Trail Modification

Trails leading to fragile cultural resources is a problem. Trails that have developed could be obliterated if deemed necessary or modified to avoid fragile portions of the resource.

Monitoring

Monitoring studies are conducted to evaluate site conditions and evaluate the effectiveness of management actions. Monitoring studies are also necessary to document the impact of management actions on cultural resources. Revision of manage-

ment practices could be undertaken if desired cultural resource objectives are not achieved. This requires systematic data gathering and analysis using techniques that can be understood and supported by those whose interests are affected by the results. The more documentation collected on study sites, the more reliable the data become.

The monitoring program is depicted in Figure 12. If there is a change in condition of a site, recommendations will be proposed to prevent further site deterioration and will be filed in the site file. If there is no change in site condition, this information will also be filed in the site file. Each site will be evaluated as to whether it should be examined at a different frequency and, if necessary, this information will be used to change the site monitoring frequency scheudule.

The first priority would be to monitor areas where damage to cultural resources is occurring. The second priority would be to monitor those areas that are not presently being impacted, but may be in the future.

The intensity of sampling would largely be a matter of professional judgement. Factors to be considered in making such judgements are: complexity or the sensitivity of known or anticipated resource use conflicts, intensity of planned management programs, diversity of cultural resource types, and present archeological resource conditions and trends.

Studies could be conducted to determine trend of the cultural resources. Trend refers to the direction or change toward which the condition of the resource is tending. It indicates whether the site condition is improving (e.g. soils have stabilized, upward trend in vegetation condition, etc.) or deteriorating.

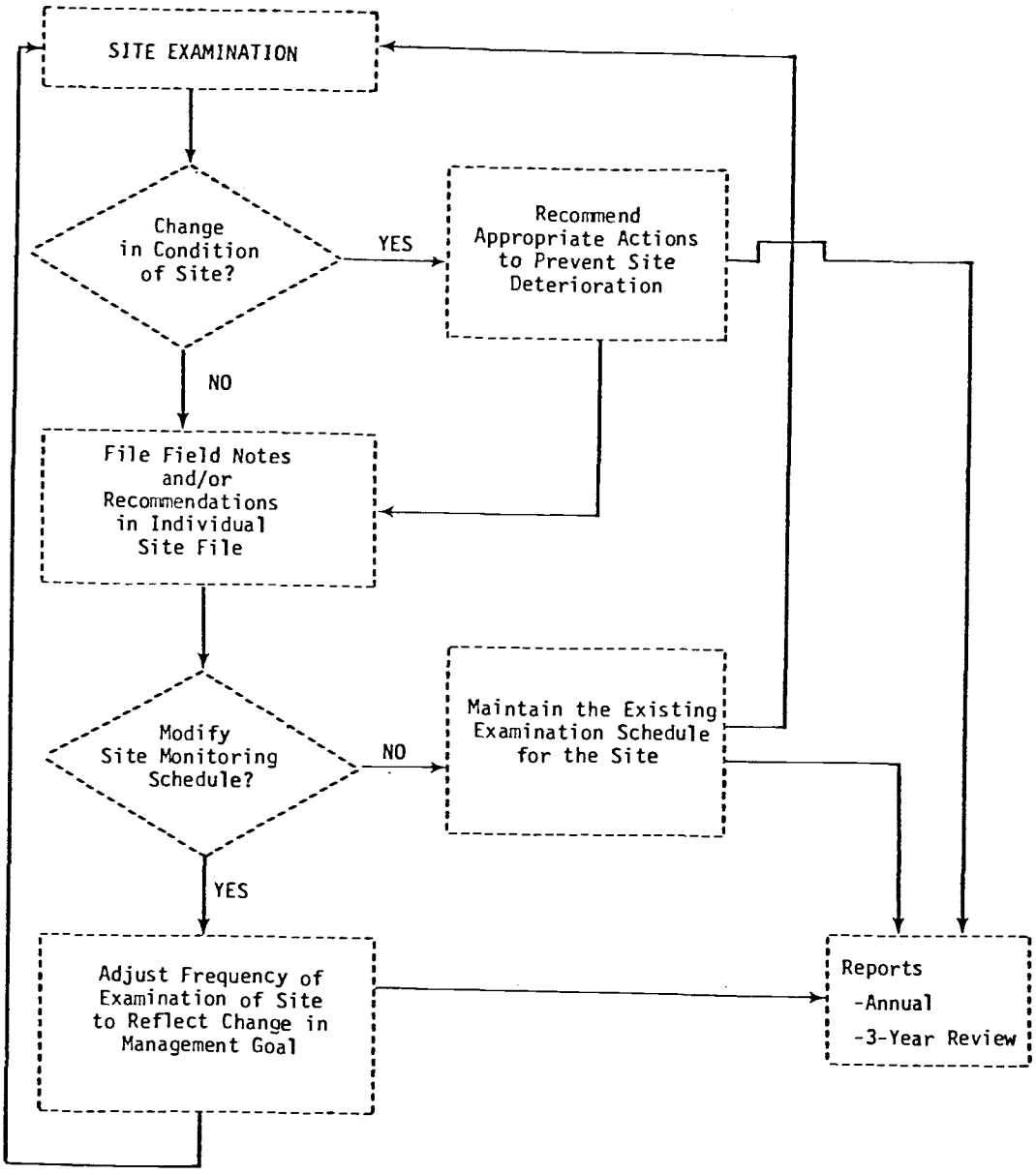

Figure 12. Lower Salmon River cultural resource monitoring system.

The frequency for collecting trend studies data should be specified for each resource. The photographs, measurements, and/or estimates may be taken at different frequencies depending upon the type of studies used, the condition of the resources, and the need for the data.

Trend studies should be started before the primary floating season begins or before any other major land use plans such as livestock grazing plans or wildlife management plans are initiated. This would insure a record of resource conditions existing prior to changes in management actions. Trend data should normally be collected before, during, and after the implementation of land use plans or the float season.

Photographs, measurements, and/or estimates should be conducted at the same time each year. Photographs should show the same area and landmarks. If possible, the photographs should be taken at the same time of the day. Measurements and/or estimates should be taken on the same plot or point each year.

The following are indicators of trend: change in vegetative cover, change in plant vigor, surface and bank erosion, litter accumulation, change in plant composition and/or plant condition, increased number of recreation-related trails, increasing wear on the existing trails, increasing number of unauthorized latrines, etc.

Documentation of trend data is recorded on the worksheets provided for the specific method used. Where photographs are taken, the file photographs would be enlarged to show special situations. The worksheets, photographs, and any other pertinent information are to be filed in the site file.

Methods of documentation to be used to record trends would be photographs, measurements and/or estimates. General view photographs would present a broad view of the area. Close-up photography would show the soil surface, exposed bank characteristics and the amount of ground surface (at a given time) covered by vegetation and litter. The photographs, compared with other photographs of the same site taken in previous years will furnish visual evidence of vegetation and soil changes on the site. All photographs would be taken in color.

Measurements of changes on a site would be accomplished by utilizing established plots to determine change in vegetation, surface erosion, or bank erosion. Plots can be changed if located improperly to monitor changes or if management of the area changes. Before changing a monitoring plot, impacts to the overall monitoring program would be considered.

Estimates of trend on a cultural site would not involve photographing or measuring the site. The site would be briefly examined and compared to the original completed site form or notes from previous monitoring examinations to determine if any changes in condition have occurred.

Data evaluation would provide accurate information so that meaningful comparisons of trend can be made. Monitoring studies are a basic part of the data needed in evaluations directed toward adjusting recreation or grazing use in existing management plans. Knowledge and interpretation of past use provides a basis for future management decisions. Analysis of this documentation would be completed on a regularly scheduled basis in order to identify potentially serious damage to the cultural resources. It is necessary to develop procedures to anticipate deterioration and take timely steps

to avoid the loss of cultural values. Documentation of no impacts would also be noted.

Inventories

Continued cultural resource inventories in the management area are necessary to maintain an updated and accurate record of cultural resource information. Inventories can include intensive field reconnaissance, test excavations and/or surface collections, architectural recording, archival research and oral histories.

Field reconnaissance could be conducted on Bureau of Land Management land adjacent to the river that was not previously examined; tracts at higher elevations in the management area; and upland areas that could be related to cultural sites in the management area. Field reconnaissance could also be conducted with the cooperation of private landowners to identify privately owned cultural sites. If significant cultural sites are located on private land then negotiations could be initiated for a cultural easement or land exchange to provide protection for the site.

Inventory data could provide information for improved site evaluations which could lead to improved management of cultural resources along the Lower Salmon River. Field reconnaissance should conform to Bureau of Land Management Class III inventory standards outlined in Bureau of Land Management Manual 8111.14.

Additional inventories could be completed on known cultural sites to more accurately describe the cultural values present on a site. Test excavations and surface collections can provide information on the temporal and functional significance

of the site. This information will lead to better management and can be used for scientific and interpretive purposes.

Permanent datum points should be set when conducting monitoring studies, test excavations, surface collections, or mapping. A permanent datum should be set so work on the site in the future may be duplicated if necessary. A Bureau of Land Management project post should be set with the cap flush with the ground when possible to make it less visible and therefore, less likely to be vandalized. The site number as well as any other information that may be needed should be stamped on the cap.

Detailed mapping of sites may include both topographic and cultural feature maps. Large scale topographic maps would provide information on the physical setting of the site and can be used in monitoring studies as an aid in determining the rate of erosion, especially on sites with eroding banks. Cultural features can be mapped to indicate the present location of features as well as their relationship to other features on the site. Low level aerial photography may be used when feasible to assist in the development of both topographic and feature maps.

Architectural recording would provide more accurate and detailed information on specific sites. Interior measurements, floor plans, widths and heights of walls, orientation of structures, roofing design, construction materials, etc. would be recorded. Drawings and black and white photography would be used to record the structures. Unique features on structures would be recorded in detail.

Archival research would include examining local historical publications and manuscripts, newspapers, mining and home-

steading records, census data, General Land Office plats and field notes, railroad survey notes, maps, museum collections, etc. Information gathered from archival research should provide the necessary information to assist in evaluation of sites. Oral interviews should be conducted to gather pertinent information on cultural resources.

All inventory and monitoring data collected should be compiled every 10 years to Bureau of Land Management Class I inventory report standards outlined in Bureau of Land Management Manual 8111.12. The report should provide a review and synthesis of the cultural resource information including inventory and monitoring data. Recent developments in cultural theories relevant to the area as well as management policies of adjacent Federal agencies should also be included.

Administrative Measures

Public Information

The purpose of presenting information to the public is to create a better understanding of values inherent in cultural resources. Public education is an important aspect of cultural resource protection. An informed public would provide the best protection of cultural resources. Increased appreciation of the resource would eventually lead to better management and less need for enforcement. The following discussion should present ideas for increasing public awareness.

Guidelines for interpretation should include the following (Harrison 1977):

A. Analyze the audience. Know the visitors motives for coming to the management area.

B. After analyzing the audience, a message should be developed and objectives defined to match the needs of the audience and management.

C. A medium must be selected that is best suited to delivering the appropriate message and obtaining the desired objectives.

D. The interpretive actions should be evaluated to determine effectiveness.

Interpretive information on specific sites should meet the following criteria:

A. Sites are already well known by the public and receive heavy recreation use.

B. The sites may be situated at the following locations: popular entry or take-out points; near developed or undeveloped campgrounds; or are adjacent to difficult whitewater rapids that are often scouted and therefore frequently visited.

C. Cultural sites are not held sacred or possess other sensitive values by Native Americans or other groups.

D. The cultural site can withstand heavy recreation use.

Analysis of the USDA - North Central Forest Experiment Station (1980a, 1982) data indicates that the majority of overnight float visitors are from Washington, Oregon and California. Approximately one-half the day use visitors are from areas in Idaho and one-third from areas in Washington that are within 120 miles of the management area (USDA - North Central Forest Experiment Station 1980b).

The message and objectives that should be presented to both the overnight and day use public land visitor is the past activities that have occurred in the management area; the importance and sensitivity of the cultural resources; and the laws that protect the resources from destruction.

The medium to communicate this message should be different for the two different audiences. Most overnight float visitors request information about the management area and obtain a Lower Salmon River Guide from the Cottonwood Resource Area Headquarters or other sources prior to their visit. The Lower Salmon River Guide and information about cultural resources sent to people who request information about the management area, should be the primary medium for communicating with the overnight float visitor.

Another medium to reach the overnight float visitor is through the commercial outfitter. The outfitters should be educated on how fragile and important some of the sites are before they can encourage their passengers to enjoy but not destroy the cultural resources along the river. Since the outfitters spend a great deal of time on the river they should also know procedures for reporting violations.

The majority of day use public land visitors are local residents and therefore the message can best be communicated to this audience through news articles, public presentations and public exhibits. Information in the Lower Salmon River Guide would also communicate the message to day use visitors.

Signs located at entry points, campgrounds and specific cultural sites, as well as brochures, could communicate the message to both the overnight float visitor and the day use

visitor. Nontechnical publications could also be utilized to present data on specific topics.

Two other audiences to be addressed are Bureau of Land Management personnel in the Area and District office and other professional cultural resource specialists. The message for Bureau of Land Management personnel should be the same as that communicated to the public land visitor. Additional information presented to Bureau of Land Management personnel should include the procedural steps in reporting antiquity violations.

The message for other cultural resource specialists should be the same as presented to the public land visitor but should also emphasize the Bureau of Land Management cultural resource program, policies, uniqueness and characteristics of cultural resources in the management area. Information could be shared with other cultural resource specialists at the following meetings; Idaho Advisory Council of Professional Archeologists, Idaho Archeological Society, Northwest Anthropological Conference, Great Basin Conference, Plains Conference, Society for Historical Archeology, and the Society for American Archeology.

Presentations and publications should be the medium used to present the message to both the Bureau of Land Management personnel and professional cultural resource specialists. Publications prepared for cultural resource specialists could be more technical than those prepared for Bureau of Land Management personnel and the general public. Feedback from both these audiences should be used to determine the effectiveness of the messages. A comprehensive interpretive plan and a means of evaluation of the interpretive plan should be developed for the management area.

Consultation

A regular schedule should be maintained to consult with various groups or individuals. Groups to be consulted should include the Idaho State Historic Preservation Officer, Nez Perce Tribe, other professional cultural resource specialists or groups, recreationists, and the general public. The purpose of these contacts is to ensure a unified approach to the management of cultural values in the management area and to gather opinions and viewpoints on issues which may be used in making management decisions. Consultation is necessary to exchange ideas and information and to promote the Bureau of Land Management cultural program. Interested groups or individuals should be provided a copy of an annual report summarizing each year's work to keep them informed of the accomplishments of the cultural resource management plan.

As part of the regular consultation with the Nez Perce Tribe, a Memorandum of Understanding should be developed. Topics of the Memorandum of Understanding should include a Native American burial policy and guidelines for interpretation of the Nez Perce Tribal heritage. Additional subjects could be added when the Memorandum of Understanding is developed.

Cultural Resource Reports

As management activities are conducted additional cultural resource information should be accumulated. An annual report of the accumulated data should be completed. The report should summarize the previous year's accomplishments and indicate any trends in the deterioration of sites. Interested groups or individuals should be provided a copy of the annual report.

A review of the Cultural Resource Management Plan should be completed before the end of the five year planned management program. The accomplishments of the cultural resource management plan should be evaluated to determine if the original objectives are being achieved. Recommendations for updating the cultural ressource management plan should be proposed if necessary.

Curation of Recovered Material

If surface collections or excavations are initiated then there should be a means of curating the material and disseminating the information. When artifacts are collected it is necessary to arrange for curation of the recovered material and important to provide security and adequate storage of artifacts.

Artifacts may be stored at the Cottonwood Resource Area Headquarters or at the Laboratory of Anthropology, University of Idaho which maintains collections for the northern portion of Idaho. Artifacts may also be provided to local museums for display or used in the Bureau of Land Management display located at the Cottonwood Resource Area Headquarters. Display and interpretation of artifacts is very important so that the public can appreciate their heritage and understand the value of cultural sites located on public land.

The Bureau of Land Management cultural resource site files should be kept in perpetual maintenance. The file is constantly updated as it is used and is generally in a current condition. A detached location for the official file station for the cultural resource site files should be located with the District Archeologist. The District Archeologist should be responsible for the custody and maintenance of the file (Bureau of Land Management Manual 1271.31A). Cultural resource

information is specifically exempt from public disclosure pursuant to Section 9 of the Archeological Resources Protection Act (P.L. 96-95) and Section 304 of the National Historic Preservation Act, as amended 1980. Copies of completed cultural resource site forms should be sent to the North Idaho Regional Archeological Center, University of Idaho, for permanent site numbers and centralized storage.

Utilization

The cultural resources along the Lower Salmon River should be used for scientific and educational activities. Cultural resources in the management area include sites ranging from single use areas to multiple component occupation sites. The data contained in these sites individually, but more importantly as a unit, are likely to yield information important for understanding the patterns, processes, and activities of the prehistoric and historic past in both the local area and the western United States. The cultural resource information contained in these sites is currently a storehouse of scientific data available when specific research needs are established and the questions can best be answered through research on these sites.

Withdrawal, Designation

Public land within one-quarter mile of the Lower Salmon River is currently withdrawn from mineral entry. In the event the protective withdrawal should be revoked, it is anticipated there would be considerable activity in relation to claim staking and placer operations.

The Surface Management Regulations, 43 CFR 3809, afford two levels of protection depending if cultural sites are identi-

fied and designated as an area of critical environmental concern (43 CFR 3809.1-4(b) (3)) or unknown sites (43 CFR 3809.2-2(e)). Other designations such as wild and scenic river, withdrawal from mineral entry, and off-road vehicle restrictions require approved operating plans under 43 CFR 3809.

The management area could be reviewed for designation as a Limited Use Area under the Resource Management Planning system and for designation as an area of critical environmental concern. The Federal Land Policy and Management Act (P.L. 94-579) defines an area of critical environmental concern as an area "within the public lands where special management attention is required (when such areas are developed or used, or where no development is required) to protect and prevent irreparable damage to important historic, cultural or scenic values...."

Existing Management Restrictions

There are a number of constraints that could be placed on other resource uses in the management area. Specific recommendations for any restrictions on other resources will be discussed in the next section.

The policy of no supplemental feeding of livestock along the river should continue. No salt stations should be permitted in areas of known cultural resources. Both of these activities result in concentrating livestock which damages cultural resources. Livestock trailing should be restricted on fragile cultural resources. Trail use can be reduced by decreasing the number of animal unit months permitted in an allotment or decreasing the number of livestock. Other methods could include fencing or barriers to prevent use of trails or areas by livestock, or planting unpalatable vegetation on sensitive

cultural resources to discourage livestock use. The season of use can also be changed if it is determined that the action would benefit cultural resources.

There are several actions that could be implemented to restrict damage from recreation use. Limits may be placed on off-road vehicle use which could restrict the types of vehicles and areas used. The number of people or groups on the river can be restricted. Some areas may be restricted from recreation use if fragile cultural resources are being damaged. This could include closing some areas to camping or limiting the number of people or groups in areas. The Bureau of Land Management may have to assign camping areas to groups. Any of the above actions could be implemented to reduce physical damage to sites. They could also be used to concentrate people away from important religious or other socio-cultural sites identified in the area by Native American, Chinese American or other interested groups. Conditions should be placed in commercial outfitter permits to discourage disturbance of cultural sites.

Minimum impact camping should strongly be encouraged in the management area. Minimum impact camping techniques could assist in minimizing impacts to sites. Elements of minimum impact camping that should strongly be encouraged are: camping on sandbars rather than terraces; no leveling or trenching around tents on terraces; no camping in rock structures; restricting campfires to sandbars and no excavated fire rings on terraces; use only dead and down wood, not boards from buildings; restrict the number or change the locations of recreation trails that are damaging cultural sites; encourage human waste carry-out; do not allow saunas to be dug into the terraces; and discourage burial of trash in terraces.

Locational data of cultural resources along the river is confidential. All of the sites along the river are unique. Only designated sites should be shown to the public. Special Land Use Permits or leases could be revoked if, after careful review, cultural resources are being damaged.

CHAPTER VII. MANAGEMENT ACTIONS FOR THE LOWER SALMON RIVER

Introduction

This chapter presents the actual management actions which will be implemented to manage cultural resources along the Lower Salmon River. These actions are presented as general management actions and as site-specific actions. General management actions apply to cultural resources in both Section A and B unless otherwise noted. Site-specific management actions address specific measures for an individual site.

Individual site locations are plotted on U.S.G.S. 7.5 minute topographic maps located at the Cottonwood Resource Area Headquarters. At a minimum, all 205 cultural sites will be monitored on a 3-year cyclic schedule so this action will not be identified for individual sites in the site-specific action section. Management actions indicated with an asterisk (*) will not be included in the implementation schedule since there will be no cost.

General Management Actions

1. Public Presentations

Decision

Give at least two presentations annually concerning cultural resources to local schools, civic groups, historical societies or other interested groups. Also, present information to Bureau of Land Management Area and District personnel.

Rationale

Increasing the knowledge of the general public about cultural resource values will eventually lead to better management and less need for enforcement.

2. Professional Consultation

Decision

Consult once a year with professional cultural resource specialists or groups including the Idaho State Historic Preservation Officer.

Rationale

Information should be presented to other cultural resource specialists to inform them of current work being conducted by the Bureau of Land Management and to disseminate information on the unique cultural resources along the Lower Salmon River.

3. News Release

Decision

Submit at least one news release a year to the local news media.

Rationale

Increasing the knowledge of the general public about cultural resource values will eventually lead to better management and less need for enforcement.

4. Cultural Input to River Guide

Decision

Include a section in the Lower Salmon River Guide on cultural resources. If the new guide is not prepared, then develop a brochure on cultural resources.

Rationale

There is an increasing interest in the cultural resources along the river. Since most river runners have Lower Salmon River Guides it would be ideal to include a section on cultural resources. If it isn't possible to have information included in the guide then a separate brochure will be developed. The information in the guide or the brochure will stress the importance, uniqueness and inform the public of how fragile cultural sites are. Specific sites and locations will not be discussed and the adventure of finding evidence of past human activity will be left to the people. The laws protecting cultural resources will only be briefly discussed.

5. Interpretation

Decision

Specific sites designated for interpretation are 10IH60, 10IH396, 10IH766, 10IH780, 10IH782, 10IH796, 10IH1180, 10LE18 and 10LE20. Cultural resource protection measures will be completed on these sites before the site locations are released for interpretive purposes. Other sites may be designated in the future.

Rationale

The cultural sites listed above represent some of the various past activities in the management area. These sites have met the interpretive criteria discussed in Chapter VI. No other sites will be disclosed to the public. Sites will be made available for interpretation only after protection measures have been initiated and it has been determined by the District Archeologist that the site meets the interpretive criteria. Therefore, Bureau of Land Management personnel will not reveal the location of cultural sites unless the sites have been designated for interpretation by the District Archeologist.

6. Public Display Case

Decision

Maintain the public display of artifacts in the Cottonwood Resource Area Headquarters office.

Rationale

There has been a favorable response from the public on the displayed information. The display of materials in the Cottonwood Resource Area office presents information from projects conducted on Bureau of Land Management land and this provides an outlet for the public to see their heritage preserved.

7. Museum Agreement

Decision

Maintain the museum agreement with St. Gertrudes Museum.

Rationale

St. Gertrudes Museum has shown a tremendous amount of enthusiasm in displaying artifacts from Bureau of Land Management land. The museum has an excellent reputation and receives a large number of visitors each year which gives the Bureau of Land Management a considerable amount of exposure. In 1982 over 3,000 people visited the museum.

8. Recreationists' Consultation

Decision

Recreationists will be contacted to discuss cultural resource concerns. Programs and projects to preserve and protect these values will be reviewed.

Rationale

Coordination between recreationists and the Bureau of Land Management is important in protecting cultural resources. The Bureau of Land Management can inform them of particular problems being encountered on cultural sites such as excessive number of trails, etc. Historical information can be provided on particular sites to enhance the recreational experience. The recreationists may also be asked to avoid more fragile sites while they are encouraged to frequent those sites that can withstand heavy recreation use. Recreationists can be contacted at commerical outfitter meetings, at major launch facilities, campgrounds, and by letter.

*9. Outfitter Permit Conditions

Decision

Continue to maintain the following two conditions in the commercial outfitter permits:

A. Permittee must not disturb archeological and historical values, including, but not limited to: petroglyphs, ruins, historic buildings, and artifacts.

B. Permittee must leave in place any hidden cultural values uncovered through authorized operations.

Rationale

Some of the commercial outfitters realize the importance of the cultural resources along the river but there may be some that do not abide by this and therefore the conditions will remain in the permit to deter any intentional destruction. An additional condition should be added in the future stating that the permittee should also report any hidden values uncovered through authorized operations.

*10. Minimum Impact Camping

Decision

Elements of minimum impact camping that will strongly be encouraged include: camping on sandbars rather than terraces; minimizing excavation of terraces for the purposes of trash disposal, fire rings, saunas, and/or leveling or trenching around tents; encourage human waste carry-out; no camping in rock structures; restricting campfires to sandbars and using only dead and down wood; and restrict, modify, and/or designate recreation trails.

Rationale

As recreation use increases there will be increased impacts to cultural resources. Training of public land

users about minimum impact camping will result in reducing adverse impacts to sites. Encouraging camping techniques that require less soil disturbance should assist in slowing the rate of deterioration of cultural resources.

*11. Off-Road Vehicle Restrictions

Decision

Continue to monitor areas of extensive off-road vehicle use to evaluate damage to cultural resources. If use is damaging sites, then the off-road vehicle designation process outlined in Bureau of Land Management Manual 8342.2 should be initiated.

Rationale

Off-road vehicle use causes significant damage to cultural resources and vehicle use must be restricted to existing roads and trails to prevent further loss of cultural resource values. Cultural resources that are currently protected with restrictions to off-road vehicle use under the Chief Joseph Management Framework Plan are: 1OIH73, 1OIH1312, 1ONP128, and 1ONP231.

12. Protective Withdrawal Review

Decision

Support the present Bureau of Land Management protective withdrawal in the management area.

Rationale

The current protective withdrawal is safeguarding the cultural resources from destruction. The withdrawal

prevents mineral entry and location. In the event the withdrawal should be revoked, it is anticipated there would be considerable activity in relation to claim staking and placer operations. The Surface Management Regulations, 43 CFR 3809, do not provide adequate long-term protection of the cultural resources. When the protective withdrawal is reviewed, strong support should be given to maintain it.

13. Area of Critical Environmental Concern Review

Decision

Section B of the management area should be considered as a potential area of critical environmental concern.

Rationale

The cultural resources along the Lower Salmon River form a special area within the public lands and special management is necessary to protect these resources. The management area meets both of the identification criteria for an area of critical environmental concern. The management area is "relevant" since it meets the definition of an area of critical environmental concern. The management area is "important" because it has special worth, consequence, meaning, distinctiveness and cause for concern, especially when compared to any like or similar resources. The resources have more-than-local significance and are vulnerable to adverse change. If the area is designated an area of critical environmental concern, plans of operations are required according to the Surface Management Regulations (43 CFR 3809).

*14. Resource Management Plan Amendment

Decision

Section B of the Lower Salmon River will be proposed as a Limited Use Area. Review of the proposal will be completed when the present planning system is updated or if an amendment addressing management of the Lower Salmon River is proposed.

Rationale

The purpose of a Limited Use Area is to protect and preserve sensitive and significant resources which includes cultural resources. Stipulations and special conditions can be imposed as necessary for the protection and preservation of the resource.

15. Nez Perce Tribe Consultation

Decision

Inform the Nez Perce Tribe at least twice a year on the current policies and management of cultural resources along the river. Develop a Memorandum of Understanding with the Nez Perce Tribe.

Rationale

The Bureau of Land Management is responsible for consulting with the local Nez Perce Tribe to evaluate the current Bureau of Land Management policies as they relate to Native American religious cultural rights and practices pursuant to P.L. 95-341, the American Indian Religious Freedoms Act. Also, the Bureau will obtain information

from the Tribe about special areas of concern to the Tribe. A Native American burial policy and guidelines for interpreting the Nez Perce Tribal heritage, as well as other subjects, will be included in the development of the Memorandum of Understanding.

*16. Grazing Restrictions

Decision

Support the policy of no supplemental feeding of livestock along the river. Also, support the policy of discouraging livestock salting stations on the low terraces adjacent to the river.

Rationale

Concentrations of livestock in small areas can severely damage cultural resources.

17. Special Land Use Permit and Lease Review

Decision

Review all the special land use permits and leases issued for areas along the river. These include: I-9401, I-7300, I-7330, I-8095, I-8059, I-9366, I-012544 and I-6298.

Rationale

Many of the special land use permits and leases were issued prior to 1978 and cultural resources were not

considered. Many of the special land use permits and leases are coincident with cultural sites and these should be reviewed before extensive damage occurs to the sites.

*18. Scientific Research

Decision

The cultural resources in the management area will be preserved as a storehouse of information for future scientific research. No destructive research (e.g. excavations) of pristine sites will be permitted in the management area. Research may be authorized in the future if pertinent information cannot be gathered by research in other areas. Salvage excavation of sites, by qualified individuals, will be authorized when sites are in danger of being destroyed. Also, limited test excavations will be permitted when conducted as part of the management decision-making process to make sound decisions in evaluating the significance of particular sites. Nondestructive research (e.g. architectural studies, etc.) will be encouraged.

Rationale

The Lower Salmon River has a large number of unique and varied cultural resources which represent different eras and activities in the prehistoric and historic development of the region. Many of these sites have been damaged to some degree and those would be the only sites on which excavations will be allowed. It makes no sense to excavate a pristine site along the Lower Salmon River or any other site in the region when another site, that

could provide the same information, is being lost to erosion or vandalism.

Salvage excavation should be designed to retrieve information before it is lost to human or natural deterioration.

*19. Professional Review Committee

Decision

Professional archeologists or historians will be solicited to review and comment on research proposals submitted for the Lower Salmon River if the Bureau of Land Management begins to receive a large number of proposals.

Rationale

If a large number of research proposals are submitted to the Bureau of Land Management then other professionals with knowledge of the research topic will be contacted to review the proposals. This action will be initiated to determine the adequacy of the proposal and to guarantee that the proposal fits into the research objectives of the region. Since the river will be preserved for future scientific research, the Bureau of Land Management must be assured that what limited research does take place will benefit the public and contribute new information to the model of regional cultural development.

*20. Archeological Field Schools

Decision

Archeological field school classes from universities will be encouraged along the Lower Salmon River. However,

field schools will only be authorized based upon the standards in Management Action 18.

Rationale

Sites will be excavated in a manner that will provide information to answer research questions that have been determined prior to the excavation. An antiquity permit will be required before excavations are begun. Sites to be excavated would only be those sites that have been or are being damaged and that require a certain amount of salvage to preserve the cultural values before they are lost. Field schools provide an excellent opportunity for retrieving scientific information and providing a means of public education.

*21. Curation

Decision

Continue to provide artifacts for the displays at St. Gertrudes Museum and the Cottonwood Resource Area Headquarters (Management Actions 7 and 6 respectively). The remaining artifacts will be stored at the Cottonwood Resource Area Headquarters. Continue to send copies of completed site forms to the North Idaho Regional Archeological Center. Maintain the official file station for cultural resources with the District Archeologist.

Rationale

Artifacts will continue to be stored at the Cottonwood Resource Area Headquarters until such time that funds are available to initiate a long-term curation agreement with

the Laboratory of Anthropology, University of Idaho. Artifacts are stored in the locked Archeology laboratory. Artifact storage at the Bureau of Land Management office allows for ready access to analyze and prepare management evaluations. Artifacts are also available for museum and office displays. Continuing to send completed site forms to the North Idaho Regional Archeological Center will permit the Bureau of Land Management to receive permanent site numbers. The site forms from the management area will become part of the cultural resource data for central Idaho and will allow researchers the opportunity to examine the information. Maintaining the official site files with the District Archeologist should control access to sensitive site information.

*22. Monitoring - Maloney Creek

Decision

Include sites 10LE5 and 10LE15 in the 3-year cyclic site monitoring schedule if the Maloney Creek Memorandum of Understanding or land exchange with the private landowner, which is proposed in the Recreation Area Management Plan, is completed.

Rationale

The proposal to prepare the Maloney Creek Memorandum of Understanding or land exchange will provide Bureau of Land Management control of two major recreation campsites. These campsites are already heavily used by recreationists. If the Memorandum of Understanding or land exchange is obtained, then the Bureau of Land Management will take responsibility for the protection of the sites

in the area. The sites will be included in the 3-year cyclic monitoring schedule and monitoring costs will be included within the monitoring budget.

23. Monitoring

Decision

At a minimum, all 205 cultural sites will be monitored. A 3-year cyclic monitoring schedule has been developed (Table 3). Critical sites will be examined at a higher frequency.

Rationale

Monitoring of cultural resources provides the necessary information on trend and condition. A 3-year cyclic monitoring schedule will permit more critical sites to be examined at a higher frequency each year while less fragile sites will be examined less often. Sites to be monitored each fiscal year will include all of those sites designated for three examinations per year; two examinations per year; one examination per year; one-half of those sites designated for examination every two years; and one-third of those sites designated for examination every three years. Additional sites are expected to be located in the future and these will be included in the 3-year cyclic monitoring schedule.

24. Site Maintenance

Decision

Maintain previously established physical protection measures.

Table 3. 3-year cyclic site monitoring frequency schedule
Sections A and B

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH51*					X
10IH52*					X
10IH57*			X		
10IH58*			X		
10IH60		X			
10IH63*				X	
10IH73	X				
10IH88*				X	
10IH89*				X	
10IH379*					X
10IH383			X		
10IH387			X		
10IH388			X		
10IH389			X		
10IH390				X	
10IH395				X	
10IH396	X				
10IH397			X		
10IH398				X	
10IH399				X	
10IH401				X	
10IH402			X		
10IH403			X		
10IH406*					X
10IH417			X		
10IH429			X		
10IH724		X			
10IH725		X			

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH750			X		
10IH760			X		
10IH761			X		
10IH766			X		
10IH770				X	
10IH775			X		
10IH776				X	
10IH777			X		
10IH778				X	
10IH779			X		
10IH780	X				
10IH782	X				
10IH783				X	
10IH784				X	
10IH787				X	
10IH788			X		
10IH789			X		
10IH791			X		
10IH792			X		
10IH793			X		
10IH794			X		
10IH796	X				
10IH797		X			
10IH889*			X		
10IH1053				X	
10IH1054			X		
10IH1160			X		
10IH1161				X	

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH1162		X			
10IH1163	X				
10IH1164					X
10IH1165				X	
10IH1180		X			
10IH1181				X	
10IH1182				X	
10IH1183					X
10IH1184					X
10IH1185					X
10IH1186		X			
10IH1187				X	
10IH1188					X
10IH1189				X	
10IH1190				X	
10IH1191					X
10IH1192				X	
10IH1193				X	
10IH1194				X	
10IH1195				X	
10IH1196					X
10IH1197			X		
10IH1198				X	
10IH1199			X		
10IH1200			X		
10IH1201				X	
10IH1202			X		
10IH1203					X

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH1204				X	
10IH1205				X	
10IH1206			X		
10IH1207				X	
10IH1208			X		
10IH1209			X		
10IH1210			X		
10IH1211				X	
10IH1212			X		
10IH1213			X		
10IH1214			X		
10IH1215			X		
10IH1216				X	
10IH1217			X		
10IH1218				X	
10IH1219					X
10IH1220				X	
10IH1221			X		
10IH1222			X		
10IH1223			X		
10IH1224				X	
10IH1225			X		
10IH1226			X		
10IH1227*			X		
10IH1228*					X
10IH1229*					X
10IH1230*					X
10IH1231*					X

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH1232*					X
10IH1233*					X
10IH1234*				X	
10IH1235*					X
10IH1237					X
10IH1238				X	
10IH1239					X
10IH1240					X
10IH1241			X		
10IH1242					X
10IH1243				X	
10IH1244				X	
10IH1245				X	
10IH1246				X	
10IH1247				X	
10IH1248				X	
10IH1249			X		
10IH1250			X		
10IH1251				X	
10IH1252			X		
10IH1253				X	
10IH1254				X	
10IH1255*				X	
10IH1256			X		
10IH1257			X		
10IH1258			X		
10IH1259			X		
10IH1260			X		

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH1261			X		
10IH1262			X		
10IH1263			X		
10IH1264			X		
10IH1265			X		
10IH1266			X		
10IH1267			X		
10IH1268			X		
10IH1269			X		
10IH1270			X		
10IH1271			X		
10IH1272			X		
10IH1273				X	
10IH1275*				X	
10IH1279				X	
10IH1280				X	
10IH1284					X
10IH1285					X
10IH1299*			X		
10IH1302				X	
10IH1303					X
10IH1304					X
10IH1305					X
10IH1308			X		
10IH1312	X				
10IH1314			X		
10IH1317					X
10IH1319					X

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10IH1328				X	
10IH1329					X
10LE18			X		
10LE19				X	
10LE20				X	
10LE21				X	
10LE22				X	
10LE46					X
10LE47		X			
10LE48				X	
10LE49				X	
10LE50				X	
10NP113			X		
10NP116			X		
10NP117			X		
10NP119			X		
10NP120			X		
10NP122			X		
10NP123			X		
10NP124			X		
10NP125			X		
10NP128			X		
10NP224			X		
10NP225					X
10NP226			X		
10NP227					X
10NP228					X
10NP229			X		

Table 3. (Continued)

Site Number	Examinations				
	3 Every Year	2 Every Year	1 Every Year	1 Every 2 Years	1 Every 3 Years
10NP230			X		
10NP231			X		
10NP232			X		
10NP233			X		
10NP234			X		
10NP235			X		
10NP236			X		
10NP262					X
10NP263			X		

* Indicates a site in Section A.

Rationale

Physical protection measures must be maintained to provide on-going and long-term protection and preservation of cultural resources. Maintenance of antiquity signs, revegetated eroding banks, etc. is required to maintain the integrity of the cultural site.

25. Annual Report

Decision

Prepare an annual report summarizing the previous year's accomplishments.

Rationale

An analysis of the accumulated data will indicate any potentially serious trends in site deterioration. The summary reports will provide a means of evaluating the accomplishments of the previous year's work.

26. Review of Cultural Resource Management Plan

Decision

A three year review of the Cultural Resource Management Plan will be completed.

Rationale

An assessment of the general trends in cultural resource condition and sources of deterioration will be completed. The previous three year's achievements will be evaluated

to determine whether the original objectives of the Cultural Resource Management Plan are being accomplished. Recommendations for updating the Cultural Resource Management Plan will be made in the review.

27. Prevention of Site Deterioration and Emergency Stabilization

Decision

Physical protection measures will be initiated on specific sites to prevent further loss of values. Site-specific management actions for the prevention of site deterioration and emergency stabilization are discussed in the following section.

Rationale

Cultural sites along the Lower Salmon River will be protected to provide a storehouse of scientific information for the future as well as interpretive information for the present. Physical protection measures such as fencing, inventories, recreation trail designation, etc. are necessary to protect these unique resources. Recreation use and the peak instantaneous runoff of the Lower Salmon River pose a threat to the destruction of these resources. Management actions must be initiated to protect the cultural sites in the management area.

Site-Specific Management Actions

10IH60

Decision

A. Provide interpretive information for the Hammer Creek Recreation Site kiosk.

B. Correlate cultural features with a previously prepared topographic map.

Rationale

Detailed background information has been compiled on the historic mining activity of the site. The site's physical features are very dramatic with large hydraulic mining cutbanks, tailing piles and rock walls. The Hammer Creek Recreation Site is built in the center of the past mining activity which makes it ideal for interpretation.

*10IH73

Decision

Cover the damaged areas with a layer of rock.

Rationale

Artifacts from the site appear to be similar to the Cascade and Tucannon phases. The site has been repeatedly vandalized. Off-road vehicle use continues to be a problem and the present restrictions must be enforced. A layer of rock will protect the site from vandalism and off-road vehicle use. This layer of rock will be in addition to the layer of protective rock placed on the site in 1982. Work will be accomplished in cooperation with the Idaho County Road Department.

10IH396

Decision

A. Relocate the 1976 test excavation units.

B. Replace headboard and board fence around the historic grave.

Rationale

Vandals are continuing to remove rock barriers protecting a recreation campground and cultural site to drive vehicles over an exposed cutbank down to a beach. Before an intensive protection program is initiated on the site, the 1976 test excavation units must be relocated so that funds are not spent protecting the previously excavated site. Vandals have removed the boards from a fence around an historic grave. The boards will be replaced and the grave will be located from a permanent datum in the event that the fence and headboard are removed. The headboard reading "Unidentified Drowning Victim" may be changed to identify the person since the identity is common knowledge by local residents and the name appears in several local publications about the history of the area.

10IH724

Decision

A. Prepare a topographic map and indicate the cultural features.

B. Complete topographic and feature map.

C. Record the architectural features.

D. Complete architectural recording.

E. Conduct archival research and oral histories to determine the function and builders of the site.

Rationale

This is the only site along the river with extensive rock terracing. The terraces have been reportedly built by the Chinese but this has been disputed. The site is weathering and receives moderate recreation use. The site may provide an excellent opportunity for interpretation in the future since a recreation campground is located on the site. Archival research and oral histories will be conducted for interpretive purposes.

10IH780

Decision

A. Analyze artifacts surface collected in 1982. Continue surface collection as necessary.

B. Designate and stabilize one recreation trail.

C. Prepare topographic map and indicate cultural features.

D. Complete topographic and feature map.

E. Initiate architectural recording of the rock structures.

F. Complete architectural recording.

G. Conduct archival research.

Rationale

Recreation use, livestock use, and fluvial erosion are damaging the Chinese habitation site. A trail passing

over a portion of the site is causing an increasing amount of damage. The site receives heavy recreation use. Surface artifacts will be collected before they are removed by the public. The eroding bank will be stabilized in the area of the trail and the trail will be built-up with rock. Recreationists will be encouraged to use only the stabilized trail which should prevent trails forming on other portions of the site. Archival research, artifact analysis, mapping, and architectural recording of features will be conducted for scientific and interpretive purposes.

10IH782

Decision

A. Record the architectural features of the site.

B. Complete architectural recording.

C. Collect remaining surface artifacts.

D. Analyze surface collection.

E. Prepare a topographic map of the site and indicate the cultural features.

F. Complete topographic and feature map.

G. Conduct archival research.

Rationale

The architecture of the site is extremely unique. The rock structure is excavated between two large boulders

and there is a unique fireplace-like feature adjacent to the door. Also, a rock terrace and a series of stone steps have been built in front of the structure. The site is receiving heavy recreation use. Artifacts have been noted as missing and there is a recreation trail forming from the river to the site. Archival research will provide information for interpretive purposes and scientific study.

10IH796

Decision

Complete detailed recording of pictographs.

Rationale

Approximately one-half of the pictographs have been photographed and traced. This is the largest known pictograph site along the Lower Salmon River. The pictograph site receives extremely heavy recreation use. The site is being recorded in detail because of the heavy recreation use and the pictographs are naturally weathering.

10IH797

Decision

A. Prepare a detailed record of the architectural features of the rock structure.

B. Complete architectural recording.

C. Collect all surface artifacts.

D. Analyze surface collection.

Rationale

The rock structure has been repeatedly vandalized and surface artifacts have been removed. The surface artifacts will be collected and analyzed for scientific and possible interpretive purposes. The rock structure will be recorded in detail before vandals disturb the walls.

*10IH889

Decision

Place a 100-foot buffer around the site that does not allow any ground disturbing activity. Continued livestock grazing is recommended to suppress the fire-fuel build-up.

Rationale

This site consists of a cemetary with graves of settlers killed in the 1877 Nez Perce War. There are several depressions outside of the fenced cemetary which may be unmarked graves and this area should be protected until such time these depressions can be identified.

10IH1161

Decision

A. Collect all surface artifacts.

B. Analyze surface collection.

C. Record the architectural features of the rock structure.

D. Complete architectural recording.

Rationale

The Chinese rock structure is built in the middle of a narrow drainage. Water from the drainage flows through the center of the structure and the structure could be washed away with a flash flood. Artifacts are located outside of the rock structure in rocks that are immediately above the high water mark. These artifacts could be lost with the next above average runoff. Several artifacts recorded earlier have since disappeared so the site is beginning to receive increased recreation use.

10IH1162

Decision

A. Collect surface artifacts.

B. Analyze surface collection.

C. Record the architectural features of the site.

D. Complete architectural recording.

Rationale

Chinese artifacts are associated around a rockshelter with a rock wall built in front of the shelter. The architecture of the site is quite unique and there is no other site along the river similar to it. Artifacts on the site are in danger of being taken by recreationists. Artifacts on the site appear to represent the modification of Euro-American goods to fit traditional Chinese functions.

10IH1163

Decision

A. Prepare a topographic map indicating the unstable, eroding bank.

B. Complete topographic map.

Rationale

A portion of the prehistoric site is eroding rapidly from damage caused by the 1982 high water. After further investigation this site may require emergency stabilization.

10IH1208

Decision

A. Prepare a detailed architectural record of the rock structure.

B. Complete architectural recording.

C. Collect surface artifacts.

D. Analyze surface artifacts.

Rationale

This site represents the only rock structure that may have had two seperate rooms. The structure is in poor condition and must be recorded while the architectural

features are still visible. Surface artifacts will be collected since vandalism and increased recreation use is occurring on an adjacent site.

10IH1221

Decision

A. Initiate architectural recording of the rock structure.

B. Complete architectural recording.

C. Collect surface artifacts.

D. Analyze surface artifacts.

Rationale

This unique site represents a 1930 Depression era habitation. There are a number of surface artifacts that are beginning to disappear, therefore, the remaining artifacts must be collected. The architecture of the site is also quite unique and must be recorded before it is destroyed.

10IH1279

Decision

A. Initiate architectural recording of the rock wall and rockshelter.

B. Complete architectural recording.

C. Collect surface artifacts from the site.

D. Analyze surface artifacts.

Rationale

The rockshelter may represent a specific functional activity of Chinese culture. Opium smoking activity is indicated by the artifacts.

10IH1299

Decision

A. Complete detailed architectural recording of the structures.

B. Prepare a detailed map of the site indicating structures, fences and orchard.

Rationale

This is only one of two sites that represents an attempt at intensive homesteading along the river. The framed structures are in very good condition and must be recorded before further deterioration occurs.

10IH1312

Decision

A. Prepare a map indicating all cultural features and the 1976 test excavation units.

B. Complete the feature map.

C. Complete architectural recording of historic features.

Rationale

Prehistorically the site may have been occupied during the Windust, Cascade, Tucannon and Harder phases. Thus, the site may have been occupied for the last 10,000 years. The 1976 test excavation units must be located before other protection measures are initiated. The historic features of the site were probably associated with the Copper's Ferry and is therefore one of the few known sites along the river associated with this activity.

10IH1328

Decision

A. Initiate architectural recording of the rock structures and rock feature.

B. Complete architectural recording.

C. Map the site features.

D. Complete feature map.

E. Conduct archival research.

Rationale

This site is reported to be a "Chinese Shrine". The rock structures are similar to those of other sites along the river but the rock feature is quite unique. One Chinese artifact has been found in association with the site. The shafts may pose a problem for user safety, therefore they should be mapped.

Implementation

Implementation and funding is based upon a 5-year planned management program for Fiscal Years 1983 - 1987. Implementation and funding estimates for general and site-specific management actions are indicated in Table 4. The existing base funding, required increased annual funding, and one time Cultural Resource Management Plan implementation funding (Table 4) is the amount required to provide minimum protection for cultural sites in the management area. Funding estimates are based upon the 1982 Coeur d'Alene District average cultural resource management work-month costs.

Funding for implementation of the 5-year planned management program is based upon in-house capabilities. Projects to protect cultural resources that are not within the capabilities of the staff will be contracted with outside entities.

Components within the existing base funding are, in priority order: monitoring (Action 23); prevention of site deterioration and emergency stabilization (Action 27); general management actions (Actions 1, 2, 3, 5, 6, 7, 8 and 15); annual report (Action 25); and site maintenance (Action 24).

Monitoring is critical in continuing to determine trend in condition of sites in the management area. Approximately 38 percent of the existing base funding is allocated to continue monitoring studies. The estimated allocation for monitoring is the minimum required to complete the 3-year cyclic site monitoring frequency schedule. Amounts greater than the estimated figure will allow more intensive monitoring on specific sites or an acceleration of the 3-year cyclic site monitoring frequency schedule which will provide more detailed information about trends in site deterioration.

Prevention of further site deterioration and emergency stabilization may include any of the physical protection measures outlined in

Table 4. Funding requirements for the 5-year action plan (FY 1983 - 1987)

	Management Action	Existing Base Funding ($)	Required Increased Annual Funding ($)	One Time Implementation Funding ($)
1.	Public Presentations	400	200	
2.	Professional Consultation	300	300	
3.	News Release	120		
4.	Input to River Guide			100
5.	Interpretation	580		
6.	Public Display Case	260	100	
7.	Museum Agreement	360	240	
8.	Recreationists Consultation	120	360	
12.	Protective Withdrawal Review			300
13.	Area of Critical Environmental Concern			3,000
15.	Nez Perce Tribe Consultation	260	100	
17.	Special Land Use Permit - Lease Review			600
23.	Monitoring	7,500		

Table 4. (Continued)

	Management Action	Existing Base Funding ($)	Required Increased Annual Funding ($)	One Time Implementation Funding ($)
24.	Site Maintenance	800	1,100	
25.	Annual Report	600	600	
26.	3-Year Review			1,300
27.	Prevention of Site Deterioration and Emergency Stabilization			
	10IH60			
	A. Interpretation			
	B. Mapping			
	10IH396			
	A. Relocate Test Units	120		
	B. Repair Fence	60		
	10IH724			
	A. Topographic and Feature Map	360		
	B. Complete Map		360	
	C. Architectural Recording	120		
	D. Complete Architectural Recording		240	
	E. Archival Research	600		
	10IH780			
	A. Analyze 1982 Surface Collection	1,800		
	B. Stabilize and Designate Trail	200		
	C. Topographic and Feature Map	360		
	D. Complete Map		360	
	E. Architectural Recording	120		

Table 4. (Continued)

Management Action	Existing Base Funding ($)	Required Increased Annual Funding ($)	One Time Implementation Funding ($)
F. Complete Architectural Recording		360	
G. Archival Research	600		
10IH782			
A. Architectural Recording	120		
B. Complete Architectural Recording		360	
C. Surface Collection	60		
D. Analysis of Surface Collection		60	
E. Topographic and Feature Map	360		
F. Complete Map		360	
G. Archival Research	600		
10IH796			
Pictograph Recording	220		
10IH797			
A. Architectural Recording	120		
B. Complete Architectural Recording		200	
C. Surface Collection	120		
D. Analyze Surface Collection		120	
10IH1161			
A. Surface Collection	60		
B. Analyze Surface Collection		60	
C. Architectural Recording	60		
D. Complete Architectural Recording		360	
10IH1162			
A. Surface Collection	360		
B. Analyze Surface Collection		1,200	
C. Architectural Recording	120		
D. Complete Architectural Recording		220	

Table 4. (Continued)

Management Action	Existing Base Funding ($)	Required Increased Annual Funding ($)	One Time Implementation Funding ($)
10IH1163			
A. Topographic Map	360		
B. Complete Map		120	
10IH1208			
A. Architectural Recording	60		
B. Complete Architectural Recording	60		
C. Surface Collection	60		
D. Analyze Surface Collection		60	
10IH1221			
A. Architectural Recording	240		
B. Complete Architectural Recording		120	
C. Surface Collection	360		
D. Analyze Surface Collection		600	
10IH1279			
A. Architectural Recording	60		
B. Complete Architectural Recording		360	
C. Surface Collection	60		
D. Analyze Surface Collection		60	
10IH1299			
A. Architectural Recording		120	
B. Feature Map		240	
10IH1312			
A. Feature Map and Relocate Test Units	240		
B. Complete Map		120	
C. Architectural Recording	60		

Table 4. (Continued)

Management Action	Existing Base Funding ($)	Required Increased Annual Funding ($)	One Time Implementation Funding ($)
10IH1328			
A. Architectural Recording	240		
B. Complete Architectural Recording		360	
C. Feature Map	360		
D. Complete Map		120	
E. Archival Research		460	
TOTALS	20,000	10,000	5,300

Chapter VI. Workload from the previous year's field work (e.g. preparation of maps, artifact analysis, etc.) is also included in this management action. Approximately 43 percent of the existing base funding is allocated to prevention of site deterioration. Prevention of site deterioration and emergency stabilization (site-specific management actions) funds have been outlined for FY 1983 and FY 1984. Management actions will be planned for specific sites before the beginning of the years 1985 - 1987 and will be based upon information generated from the monitoring program.

General management actions primarily involve consultation with other groups and interpretation. Approximately 12 percent of the existing base funding is allocated for general management actions.

An annual review will provide a summary of the previous year's accomplishments. Approximately four percent of the existing base funding is allocated for this action. Approximately three percent of the existing base funding is allocated to maintain previously established management actions. These actions include maintenance of antiquity signs, maintenance of designated trails, continued revegetation of eroding banks, etc.

Increased annual funding is required to accomplish increased site-specific management actions in preventing site deterioration and emergency stabilization as well as accomplishing additional work in existing general management actions. Priorities within the required increased annual operating funds are: prevention of site deterioration and emergency stabilization (Action 27); annual report (Action 25); site maintenance (Action 24); and general management actions (Actions 1, 2, 6, 7, 8, and 15).

Priorities of the one-time Cultural Resource Management Plan implementation funds are: input to the Lower Salmon River Guide (Action 4); special land use permit-lease Review (Action 18);

protective withdrawal review (Action 12); 3-year review of Cultural Resource Management Plan (Action 26); and area of critical environmental concern review (Action 13).

The Lower Salmon River cultural resource management system is displayed in Figure 13. Monitoring is the driving mechanism in the management system. General and site-specific management decisions are based upon data generated from monitoring. Site-specific management actions that include physical protection measures must be maintained to assure that the initiated actions continue to prevent further deterioration in site condition. The results of the general and site-specific management actions as well as site maintenance activities are evaluated and reported in the annual report and three year review of the Cultural Resource Management Plan. The year's accomplishments are evaluated and the data utilized to adjust, if necessary, the goals of the management system which are in turn reflected in the monitoring program.

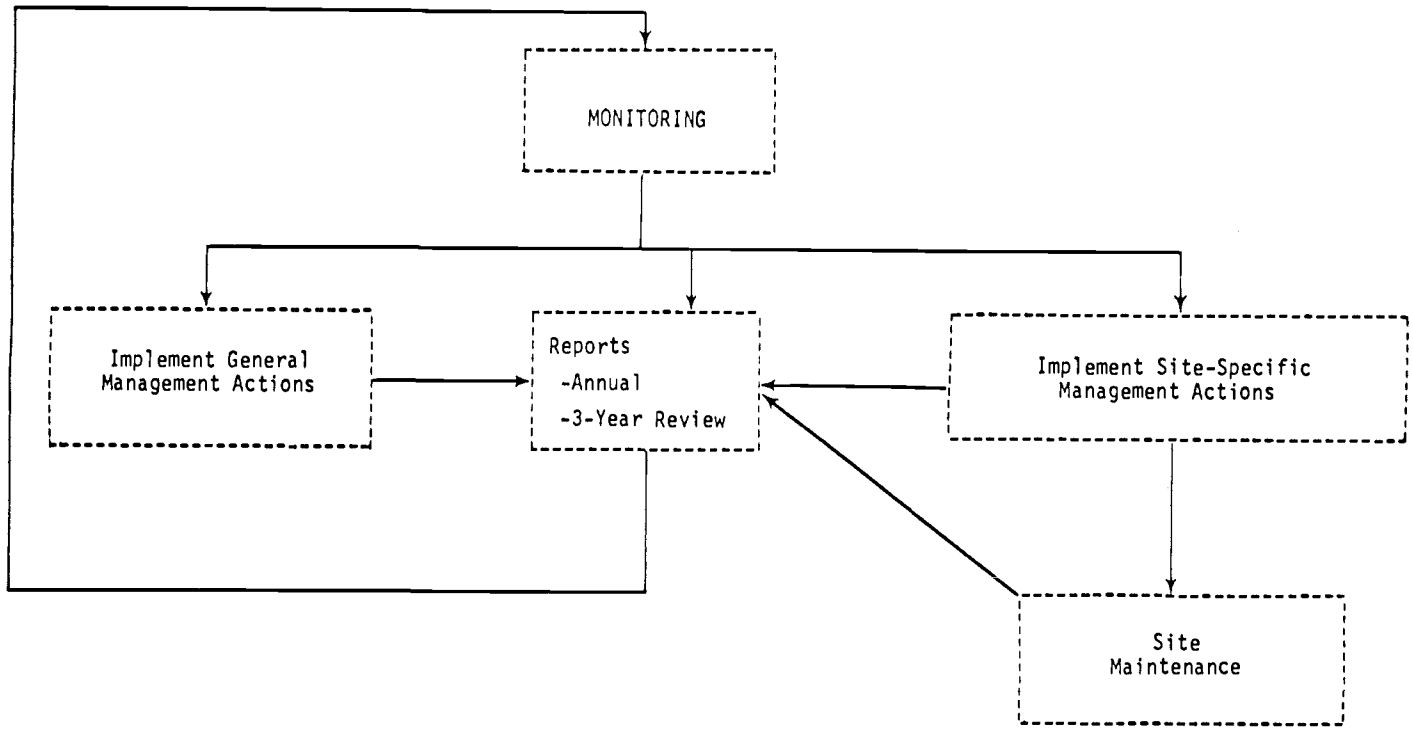

Figure 13. Lower Salmon River cultural resource management system.

CHAPTER VIII. SUMMARY AND CONCLUSIONS

Significance of the Data

The Lower Salmon River has been identified as important in the cultural development of the region. The 205 known sites represent a rich and diverse record of human occupation and utilization of the management area during the past 10,000 years. Each of the 205 sites contains a unique record of human activity including: evidence of early prehistoric adaptation; probable villages of the ethnographic Nez Perce Tribe; early Chinese and Euro-American mining between the 1860s - 1920s; and attempts at homesteading and mining during the Depression of the 1930s.

The cultural resources along the Lower Salmon River should be used for scientific and educational activities. Cultural resources in the management area include sites ranging from single use areas to multiple component occupation sites. Data contained in these sites individually, but more importantly as a unit, are likely to yield information important for understanding the patterns, processes, and activities of the prehistoric and historic past in both the local area and the western United States. The cultural resource information contained in these sites is currently a storehouse of scientific data available when specific research needs are established and the questions can best be answered through research on these sites.

Future Management Needs

The following discussion should form a basis for the development of a comprehensive research design for the management area. As the research design develops and is modified through the years it should be closely coordinated with the one presented by Ames (n.d.) for the Clearwater River area immediately north of the management area.

Currently there are not any specific scientific research projects underway for the Lower Salmon River. The following are some of the possible research strategies which may be studied. The data for these studies may not be available in other areas or the Lower Salmon River may provide data to test hypotheses developed from research in other areas.

The cultural chronology which is currently being used for the Lower Salmon River has been developed based upon research in the Clearwater and Snake River areas. There is not a chronology available for the Lower Salmon River. Future research should define the local chronology and identify local patterns in the historic use of the Lower Salmon River.

Future research on the chronology can also be used to test the chronologies developed for the adjoining areas of the Snake and Clearwater Rivers. A specific research question which remains unanswered is whether the Weis Rockshelter chronology is analogous with the Lower Snake River chronology, the Hells Canyon chronology or whether it represents a cultural preserve in the region.

The Lower Salmon River is also ideally suited to studies concerning the settlement patterns in the river canyon. Future research is needed to define the shape of individual dwellings or structures, the number of people, the layout of communities, the spatial relationship of one community to another and changes in settlement patterns over time.

Architectural studies could also be conducted along the Lower Salmon River to answer several questions on architectural values. These studies could establish the influence of local environments on the styles of structures used by one group. Of special interest might be the adaptation of Chinese architectural styles to the Lower Salmon River. Another problem could be the influence and relationship of the architectural styles of one group on others

such as the influence of Chinese architectural styles on subsequent historic occupation along the Lower Salmon River. Studies could also be conducted on the relationship of the architectural styles to the subsistence pattern or environments of the Lower Salmon River.

Geomorphic studies would be beneficial for determining geo-chronological dating of sites. The study of river terrace sequences should allow the researcher to establish a predictive model of possible site functions and chronological setting of the site.

One environmental attribute that appears to correlate with pre-historic sites is the existence of rye grass (Elymus sp.). One does not find rye grass at every prehistoric site, but when rye grass is observed there is often a prehistoric site present. This observation is based on personal observation as well as discussions with Craig Johnson (1983).

Rye grass may have been used for a food resource but it also had other uses as noted in the following discussion of Nez Perce structures by Spinden (1908: 196), "Instead of mats a very coarse heavy grass, commonly called rye-grass (Elymus sp.) was sometimes laid over the side poles or rafters to the depth of several inches and then covered with earth." Therefore, the presence of rye grass may indicate past prehistoric use of an area and this will need to be examined closely in the future.

The data contained in these cultural sites may also provide information necessary for studies on human behavior and social organization. Specific questions could be the adaptation to the river canyon environment and the aspects of this adaptation over time with various cultural groups. Questions could also be answered on topics such as the womans role (specifically with Chinese and mining sites), the use of opium, maintenance of native cultures and

identification of religious and social values related to individual sites and areas. These studies could also add to data on the nonmaterial cultural resources of the Lower Salmon River.

The condition and integrity of the sites, particularly the Chinese sites, appear to be much better than those in other parts of Idaho and the Northwest. The Lower Salmon River will be an excellent area to test hypotheses generated from research on the upper Salmon River drainage, Snake River, Clearwater River or the upland areas between them.

Not only can cultural sites provide data for scientific research but also for educational purposes. Educational information may be provided for the archeological student as well as the general public. Archeological field schools provide one means of gathering information for scientific purposes as well as providing an educational experience. Archeological field schools may achieve several goals: sites can be excavated that are in danger of being destroyed; the information generated may answer specific research strategies for the Lower Salmon River or the region; the archeology student may be educated in proper field techniques; the general public may view and possibly assist in the excavation of a significant cultural site; and information may be generated for interpretation and public education.

A research design should be developed to measure the effectiveness of the public awareness program. A variety of methods can be used to inform the public which includes the following: river guide, public displays, public presentations, personal contact between archeological field school members and the public, news articles, interpretive signs, brochures, and publications. The effectiveness of these various actions should be studied to determine if the information presented is understood, if the correct audience is being contacted and if the cultural resources are actually better appreciated and protected.

Summary

Damage to these 205 unique and fragile cultural resources has accelerated the last several years. Increases in recreation use, increased vandalism and above-average instantaneous flows of the Salmon River have been the primary sources of deterioration. Continued damage to cultural sites can only be prevented through programs of public awareness and physical protection.

An important aspect of the Cultural Resource Management Plan is that it is dynamic. It can be changed quite readily when new situations arise. A site presently considered important may be replaced by another site in priority of protection because of increased recreation use of a site, vandalism, increased fluvial erosion, etc. Any site designated for one protection measure can have other measures added.

Therefore, the Lower Salmon River Cultural Resource Management Plan outlines both short-term and long-term management actions to prevent the further loss of cultural values. Management actions are designed both to allow present users of the river to enjoy and benefit from cultural sites as well as preserve these unique sites for the enjoyment of future generations.

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