

The Lolo Trail

A Plan for Its Documentation and Preservation

Steve F. Russell, PhD, PE

Abstract - The Lolo Trail is a mountain trail in Northern Idaho that ranks second only to the Oregon Trail and the Mullan Wagon Road in its importance to Northwest U.S. History. Due to its remoteness, it may also be the most well preserved and documentable Native American trail left in the entire U.S. Aggressive documentation and preservation measures are urgently needed if the historic nature of the Lolo Trail is to be fully protected for future generations. These measures must be applied to the archaeological sites, removable artifacts, and the five actual routes or "paths" themselves. Documentation and preservation will involve photographic and radiometric surveys, topographic location, definition of protection boundaries, and the protection of the existing routes against any type of rerouting. The most influential agency for effecting these changes is the Forest Service USDA. With their leadership, and the cooperation of interested historical groups and adjacent land owners, this documentation and preservation can become a reality.

Pioneer Trails Research
Ames, Iowa
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June 16, 1990

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PREFACE

This report documents a plan for the documentation and preservation of the Lolo Trail and all of its routes. The plans will be periodically updated to meet changing needs and improve its quality.

Steve F. Russell
June 16, 1990

THE LOLO TRAIL

A Plan for Its Documentation and Preservation

October 15, 1989

(Revised June 20, 1990)

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ABSTRACT

The Lolo Trail is a mountain trail in Northern Idaho that ranks second only to the Oregon Trail and the Mullan Wagon Road in its importance to Northwest U.S. History. Due to its remoteness, it may also be the most well preserved and documentable Native American trail left in the entire U.S. Aggressive documentation and preservation measures are urgently needed if the historic nature of the Lolo Trail is to be fully protected for future generations. These measures must be applied to the archaeological sites, removable artifacts, and the five actual routes or "paths" themselves. Documentation and preservation will involve photographic and radionavigation surveys, topographic location, definition of protection boundaries, and the protection of the existing routes against any type of rerouting. The most influential agency for effecting these changes is the Forest Service USDA. With their leadership, and the cooperation of interested historical groups and adjacent land owners, this documentation and preservation can become a reality.

PREFACE

The Lolo Trail is poised at the beginning of a rebirth. The centennial celebrations in the Northwest U.S. have heightened public awareness and interest in Lewis and Clark and the Lolo Trail of 1866. Continued logging and increased recreational activity along the trail have the potential for causing irretrievable damage to its various routes. Detailed planning and extraordinary preservation efforts will be needed if the pristine nature of the Lolo Trail is to survive. I have written this plan to help aid the preservation effort.

Steve F. Russell
October 15, 1989

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INTRODUCTION

The Lolo Trail is a mountain trail in Northern Idaho that ranks second only to the Oregon Trail and the Mullan Wagon Road in its importance to Northwest U.S. History. It may also be the most well preserved and documentable Native American trail left in the entire U.S. This route was once travelled by Nez Perce buffalo hunters, Lewis and Clark, the fur trappers, the gold miners, Captain John Mullan, the Bird-Truax survey crew, Chief Joseph, General Howard, and many others. It will take careful planning and much effort by many people and organizations if its character is to be preserved and enjoyed.

*This plan has been written as an aid to
future documentation and preservation of
the Lolo Trail.*

HISTORY AND BACKGROUND

The existence of the Lolo Trail spans several hundred years, but written documentation of its existence and its route began on Tuesday, September 10th in 1805 [1]. This is the day when the *Corps of Discovery*, under the joint command of Capt^s. Meriwether Lewis and

William Clark, began their journey west from their Traveler's Rest Creek camp near Lolo, Montana to the Weippe Prairie near Weippe, Idaho. They documented their route in great detail and thus provided modern historians and archaeologists with a wealth of information. The explorers attempted to follow the Nez Perce Indian trail that was well established at that time, but they were not entirely successful so the original buffalo hunting trail and the *Lewis and Clark Trail* differ for many segments.

Lewis and Clark
Trail 1805-1806

To the Nez Perce, the route we now call the Lolo Trail was the *Khusahnah Ishkit* [2] or buffalo trail to the hunting grounds in Montana. They used it to meet with the Flathead tribe in the Bitter Root Valley and travel east with them to hunt buffalo in the Gallatin Valley and on the Musselshell River. The *Khusahnah Ishkit* was also used to travel to the fishing weirs on the upper Lochsa River. The route used by the Nez Perce stayed on the highest parts of the ridges unless a major obstacle such as a timber blowdown or rocky cliff prevented it. It also appears that they burned the tops of the ridges to make the going easier and to make the visibility better. Good visibility was important because the *Khusahnah Ishkit* was also used by the grizzly bear that were numerous in Clearwater country until the 1900s!

Khusahnah
Ishkit
1800

The next newcomers to travel the Lolo Trail (after Lewis and Clark) were the beaver trappers. We have little documentation from them and much work remains to be done in gathering together what is left. In the 1820s and 1830s, several fur companies, with hundreds of men, covered the entire Northwest U.S. in search of beaver. Space [2] has briefly described a trip over the Lolo Trail in 1831 that was made by a party led by the fur trader, John Work. By the mid 1840s, most of the beaver in the northwest were gone along with many of the buffalo and most of the mountain (Bighorn) sheep [3]. Thus, the Lolo Trail

would experience a temporary decline in traffic.

In September of 1854, Lieutenant John Mullan travelled the Lolo Trail with a survey party as part of the explorations for a Pacific Railroad under the direction of Issac I. Stevens. Mullan would report that the route was unsuitable because it was too rugged. A few years later, Mullan would lead the survey and construction of a military wagon road from Fort Benton, Montana to Walla Walla, Washington. He chose the Coeur d'Alene Pass and not the Lolo Pass for his route. Issac Stevens became the first governor of Washington Territory but he was called to duty in the civil war and was killed.

Gold miners from the California gold fields worked their way north into the Clearwater country in the late 1850s and early 1860s. When gold was discovered at Pierce, Elk City, and Florence, another "gold rush" began. Lewiston (Idaho Territory) quickly grew into a trade center for the miners and a wagon road (actually more of a pack trail for horses and mules) was constructed to Pierce City and the placer mines of Oro Fino and Rhodes Creek. The Pierce Cty. Wagon Road connected with the *Khusahnah Ishkit* at Weippe Prairie so the Lolo Trail was the main route between this area and Montana and it was frequently used. The gold miners and explorers of this historical period called the *Khusahnah Ishkit* the Northern Nez Perces Trail [4].

In the 1860s, the merchants of Lewiston started a campaign to get the federal government to build a wagon road from Lewiston to Virginia City, Montana [4]. Lewiston wanted to compete with Fort Benton, Montana and Corinne, Utah as a supply source for the gold fields of Montana. Finally, an appropriation of \$50,000 was made to build the road. In the spring of 1866, the wagon road survey commenced at Weippe Prairie. The route chosen by the civil engineer, George Nicholson, is the route that is most commonly recognized today as the Lolo Trail. It closely followed the *Khusahnah Ishkit* when appropriate, but was surveyed to the best

Lolo Trail of 1866

grade possible for a wagon road. The trail was expertly graded in and out of the many deep saddles -- a remarkable feat considering the primitive equipment, rough country, and the heavy timber. Many times as I have been locating the trail, I've found its location by considering the route with the best grade -- even when it went along a very steep sidehill as it does west of Moon Saddle. The construction crew cleared the right-of-way and built a pack trail on the surveyed route from Weippe Prairie to Lolo Pass. The coming of winter and the high cost of labor and supplies in the gold country eventually doomed the project. Although the wagon road was never completed, a first class pack trail was constructed and become the *Bird-Truax Trail* or the Lolo Trail of 1866.

In 1877, the *Bird-Truax Trail* was used by a band of Nez Perces, including Chiefs Looking Glass, White Bird, Joseph, and others [5] to flee the Clearwater Country after hostilities broke out. They were followed by the U.S. Army under the command of General Howard. Some of the modern place names of the area were introduced as a direct result of this conflict.

The *Bird-Truax Trail* was used by all Lolo Trail travelers until 1907 when the trail was cleared by the U.S. Forest Service [2]. It is not clear from extant historical documents that the USFS made any changes in the Bird-Truax route but the trail today shows evidence of several minor route changes. Some of them appear to have been made to shorten distances but at an increase in the grade. In these cases, I believe that the steeper grades are generally the newer sections of trail.

USFS Lolo Trail 1907

In 1925, construction on a primitive road (*Lolo Motorway*) to replace the Lolo Trail was started at Lolo Hot Springs, Montana [6]. It reached Powell RS in 1928. From Powell, it went north and joined the Lolo

Lolo Motorway 1934

Trail at the "modern" Powell Junction. Construction on this primitive road was also started on the west end. When the two ends met in 1934, the *Lolo Motorway* was completed and the usefulness of the historic Lolo Trail was at an end. Since 1934, the trail has had little use except by Elk, deer, bear, and an occasional hunter, hiker, archaeologist, or historian. However, it is still remarkably easy to travel in many places and travelling amply rewards the effort.

THE MANY ROUTES

Documentation and preservation of the Lolo Trail is not simple because there are several somewhat parallel, but historically significant, routes. Going back approximately 200 years, the routes can be broadly classified as follows:

1. 1700s to 1866. The *Khusahnah Ishkit* (buffalo trail) or the *Northern Nes Perces Trail* used by many of the northwest tribes as a travel route between salmon fishing locations (weirs) on the clearwater tributaries and the buffalo hunting areas of central Montana. This route was used by the early trappers and miners in the Clearwater country. It was also used as the basis for most of the *Bird-Truax Trail* in 1866 and much of it was followed by Lewis and Clark.
2. 1804 and 1805. The *Lewis and Clark Trail* that was traveled by the Corps of Discovery under the command of Merriwether Lewis and William Clark. Although they intended to follow the *Khusahnah Ishkit*, they made considerable deviations due to a poor guidance, bad weather, and desperate circumstances. Therefore, the *Lewis and Clark Trail* should be considered as being both historically and physically separate from the *Khusahnah Ishkit*.
3. 1866-1907. The *Bird-Truax Trail* that was surveyed and built in

1866. It is this route that has become famous as the "Lolo trail" and for which the majority of the physical evidence still exists. It is also known as the *Lewiston Virginia City Wagon Road* to historians and archaeologists but it was never developed into a wagon road.

4. 1907-1934 The *USFS Lolo Trail* came into being when the U.S. Forest Service cleared and marked the *Bird-Truax Trail*. There is physical evidence that some of the route was slightly modified during the years from about 1907 to 1934.
5. 1934 to the Present. The *Lolo Motorway* (or Lolo "Truck Trail") was completed in 1934 and it made the *USFS Lolo Trail* obsolete. Much of the *Lolo Motorway* can still be travelled today although there are some short sections which have been closed due to logging, road reconstruction, or wildlife management.

ORIGIN OF THE NAME LOLO

The name Lolo is a familiar one to people living in West Central Montana and Northern Idaho and yet historical documents are unclear as to its origin. In the course of my research on pioneer trails and pioneer place names, I have found numerous references to the name with at least seven different spelling variations (Lou Lou, Lou-lou, Loulou, Lolo, Loulo, Lo Lo, Lu Lu) and have come to regard its origin as an historical enigma. The origin truly is, and might forever remain, a mystery -- but early documents can be analyzed for clues.

Ralph Space [2] gives a good account of the possible origins and concludes that the name probably derives from an early fur trapper who lived on Lolo Creek in Montana and is buried in a meadow on a branch of it called Grave Creek. David Thompson's journals [7] refer to a man living in the area and called "Lo Lo". This was in 1810 when few white

men were living in the Northwest. The next reference is by Capt. John Mullan of the Pacific Railroad survey who, in September of 1854, explored a trail going west up the "Lou-Lou Fork of the Bitter Root".

The Bird-Truax crew used the names Lou Lou Trail, or Lou-Lou Fork Trail, or *Northern Nez Perces Trail* to refer to the *Khusahnah Ishkit*. In 1866, Lolo Creek in Montana was still being called the Lou-Lou Fork of the Bitter Root while Lolo Creek in Idaho was being called the Lolo Fork of the Clearwater.

The name Lolo for the creek in Idaho became fixed at least by 1866 but the creek in Montana continued to appear on maps as Lou-Lou, Lolo, or some slight variation thereof. About 1904, the U.S. Board of Geographic Names adopted Lolo as the proper name for the creek in Montana.

I believe that the name was pronounced two different ways, *Lō Lō* or *Lü Lü*. The spelling "Lou Lou" was an attempt at a phonetic spelling of the actual name. The two syllables must have been pronounced with a slight separation since the name was often spelled with a separation. I believe that the creek in Idaho was christened "Lo Lo" because it marked the trail east to the "Lou-Lou fork of the Bitter Root". Naming a creek after a trailhead or major route was common practice in pioneer times.

HISTORICAL PRESERVATION AND RESEARCH SIGNIFICANCE

Importance. The Lolo Trail routes, historical camping places, and removable artifacts are outstanding archaeological treasures of western U.S. history that deserve our most diligent preservation efforts. The actual routes themselves, and not just the archeological sites and artifacts, should be preserved [8][9]. I believe that many

archaeologists, historians, and local residents are unaware of how important the Lolo Trail routes have been and how amazingly well they have been preserved for much of their length. Successful cooperative efforts will produce important historical and archaeological preservation that applies to the Nez Perces, Lewis and Clark, early explorers and traders, gold miners, early commerce, the first railroad explorations, the very early USFS, and several generations of Clearwater Country residents. Future historians and archaeologists will find the Lolo Trail to be an excellent resource for research on the groups mentioned above.

Vandalism - "sanctioned" or otherwise. From the point of view of historical preservation, any removal of artifacts or route changes to the trail constitute a type of vandalism. It is a fact of human nature that removable artifacts along the trail will rapidly disappear if the trail is cleared and well-marked. There is no reasonable way this can be avoided. Many are obvious and can be easily removed. If the exact location of camping places and other archaeological sites are publicly identified, they will first be combed with metal detectors and then probed and dug up by more determined "treasure hunters". Items along the trail that are easily removed are old signs, telephone wire, insulators, traps, etc. Something equally dislikable and inappropriate is the "sanctioned vandalism" caused by well-meaning government agencies and historical groups. For example, the USFS has proposed the rerouting of sections of the *Bird-Truax Trail* for the sake of "improving the grade and preventing erosion". This must not be done because it destroys the very things that need to be protected most -- the trail routes. There are only a very few places where the *Bird-Truax Trail* does not have an excellent grade. After all, it was surveyed as a wagon road and a very commendable job was done. The 1866 route saw considerable use for almost 70 years and 95 percent of it has survived quite nicely until recent years. Rerouting of the 1866 trail should be proposed only when a very strong case can be made that the benefits will far outweigh the permanent damage to the historic route.

Another inappropriate and dislikable activity is uninformed trail clearing by clubs and historical groups. They can be misled into clearing a game trail or other minor trail not actually on the route. This has occurred west of Camp Martin and west of Cayuse Junction.

The USFS practice of hiring contract trail crews to clear trails should not be used on the Lolo Trail routes. I recommend that the trail be surveyed only by full-time, permanent, career USFS personnel that have had special training in both archaeological preservation and federal policy on preservation. This training could be in the form of short courses given by USFS archaeologists and other trained professionals. The use of untrained, temporary, minimally-supervised trail crews will make it nearly impossible to properly protect artifacts.

In summary, the actual trail routes should be preserved and are the easiest to preserve because hunters, hikers, and other public groups seldom do significant trail rerouting. It is only government agencies that have the resources to cause this type of damage and the power to prevent it. The next easiest to preserve are the camping places and archaeological sites because their precise locations do not have to be made public. General references to their location are adequate for interpretive guides. It is virtually impossible to protect the removable artifacts and it is best to have trained survey personnel copiously document them, remove them, and display them in a well-established museum.

PRESERVATION ACTIVITIES AND TECHNIQUES

Physical Preservation. This is the most appealing in the short term but it is unrealistic to expect to physically preserve the routes for the long term. The press of humanity and economic livelihood will eventually affect even the remote Lolo Trail. The easiest to

physically preserve are the actual routes themselves. This would require that no rerouting or changes of any kind be made. Trail clearing and erecting of signs would be held to a very minimum. Archaeological sites would not be identified except in restricted documents and definitely not with signs. The location of removable artifacts would not be publicly disclosed and those that would be easy to find would be properly documented, carefully removed, and preserved in a well-established public museum. The careful marking of each route must be done in such a way as to be as permanent as possible and yet as unobtrusive. Such methods as blazes, ribbons, and signs do not last long enough. Research will need to be done to determine an acceptable method. In the interim, a restricted number of carefully designed aluminum markers can be used for route segments away from the *Lolo Motorway*.

Route Documentation. I am interested in the preservation of the Lolo Trail both physically and using documentation techniques. The documentation techniques I propose will provide the public and researchers with information that will be enjoyable and useful for many generations to come. For the past few years I have been engaged in documenting the routes by topographic survey. Foremost in my present research work is the very accurate location of the routes, 1866 place names, and geographical features on 7.5' topographic maps. I also have been doing some video and much color still-photo documentation and have hundreds of photos. I would also like to begin efforts to initiate and complete all topographic, photographic, video, and radionavigation surveys before any more irrecoverable physical changes occur on the existing trails and the *Lolo Motorway*.

Topographic Survey. This is a low-cost method I've developed for determining the location of the Lolo Trail routes on a 7.5' topographic map. Applying this method, I walk a segment of the route with a topographic map, compass, pace counter, and barometric altimeter. Using these tools, and the *Lolo Motorway* and prominent landmarks as a

guide, I document the precise route on the topographic map. This method has yielded excellent results but a radionavigation survey is needed to improve the precision.

Radionavigation Survey. This reasonable-cost method is the next logical step in documenting the routes with a high degree of accuracy. The advantage of radionavigation methods over a manual survey is that they are lower cost. The oldest system that can do satellite geodesy is TRANSIT. However, it is slow and not appropriate for a trail survey. Currently, the fastest and most accurate way to do surveys is to use NAVSTAR-GPS, but the space shuttle problems have delayed putting all the needed satellites in place so coverage is currently only 4-6 hours per 24 hours and the useable time interval periodically occurs at night. If the launch schedules are accelerated as planned, GPS might be practical in a year or two. An alternate surveying tool is the LORAN-C radionavigation system. I learned recently of plans to enhance the LORAN-C system for the western United States. This is planned to be completed in two years. If the signal coverage for northern Idaho is strong and reliable, it is a good alternative.

Historical Preservation through Photography. In recognition of the fact that "perfect preservation" is impossible, and physical preservation is imperfect, I am proposing a methodology for preservation using documentation and photography. If properly done, this will provide many future generations with the opportunity to take a "trip" on the old Lolo Trail. In addition to copious verbal descriptions of the trail and landmarks, photographic and video surveys should be done both east and west. I am recommending that all the following be used:

1. Still photo, color.
2. Still photo, archival black & white.
3. Video tape.
4. Audio tape narratives.

5. High-resolution aerial photo survey.

In fact, the photographic, video, and audio surveys could be done more than once by different organizations or agencies. Doing it more than once would provide a richer diversity of cultural and historical perspectives.

GENERAL COMMENTS ABOUT PRESERVATION

I am very concerned with the preservation of 1) all five routes in their present condition, 2) the geographical features, 3) the removable artifacts, and 4) the archaeological sites. Well-meaning trail renovation by the USFS and historical groups could significantly reduce the historical and archaeological value of the routes. Of equal importance is the protection of archaeological sites from "treasure hunting" activities. I have located several of the early camping sites that are still undisturbed by road building, elk hunting, logging, or "treasure hunting" activities. I'm reluctant to disclose these locations to the general public by publishing accurate maps and am undecided as to how to document them for historical and scientific purposes. A definite policy needs to be implemented that addresses the confidentiality and eventual use of this type of information.

Another item of concern is the preservation of the *Lolo Motorway*. It has existed since 1934 and deserves to be recognized and prized for its historical value. It was a fulfillment of the wagon road "dream" of 1866. In addition, the *Lolo Motorway* directly overlays the *Bird-Truax Trail* for many short segments throughout most of its route. This is testimony to the quality of the 1866 survey for the Lewiston Virginia City Wagon Road. In many other places, the trail is only a few feet above or below the Motorway. In some places, a part of the trail can still be seen on the very edge of the upper part of the Motorway.

Widening the Motorway will destroy the historic trail in these places.

GENERAL RECOMMENDATIONS FOR TRAIL MANAGEMENT

Protective Boundaries. After all of the routes have been documented, topographic maps should be prepared which show the exact location of the routes. A protective boundary should be identified for each route to preserve it from road building, logging, campsite development, recreational development, or other activities which might destroy a portion of the route. When the routes must be crossed with new roads, the roads should cross at right angles and not parallel the Lolo Trail route too closely. To date, the USFS has done a commendable job of avoiding timber sales and road building that destroy the trail. Most, if not all, of the damage to date has been on BLM land and Burlington Northern ("NP") land. The topo maps showing the routes and protective boundaries should be distributed to all groups and agencies with the encouragement to preserve the trails by observing the boundaries.

Erosion Control and Grade Changes. Modern erosion control and trail/road grade standards are much too stringent to apply to the historic routes of the Lolo Trail. If an exception for these routes is not made, their historic nature will be severely and irreparably damaged. Erosion is not a serious problem for the Lolo Trail. The route of 1866 was surveyed to a grade suitable for a wagon road and presents very few steep grades or potentially serious erosion problems. This, coupled with the fact that trail traffic will continue to be very light for many years to come would seem to indicate that all parties concerned should take a "wait and see" attitude concerning any rerouting. In the meantime, the segments of the routes that will be identified for moderate recreational use need to be carefully monitored and evaluated to see if erosion levels are acceptable in trade for maintaining the historic nature of the route.

Interpretive Signs.

The trail should be copiously marked with simple signs that indicate the Bird-Truax names of 1866. In key places, more elaborate signs could tell more of the history of the trail -- much like the Lewis and Clark signs do now.

Trail Renovation and Maintenance Recommendations.

The following classifications are being recommended for the trail routes. A set of classifications for the Motorway route have not yet been developed.

1. Unmaintained (U) -- no clearing, rerouting, regrading, or marking except a simple marker where the route crosses the *Lolo Motorway*. Location identification by longitude/latitude, photo survey, and 7.5' topo map. Other location documentation methods may be needed for research or archaeological purposes.
2. Natural (N) -- minimal clearing with very minimal regrading and no rerouting. Minimum marking with historical place names from Bird-Truax and Lewis and Clark documents. Location identification only by clearing and simple markers where the route crosses the Motorway.
3. Primitive (P) -- This is the current USFS classification, "Way", for a marked route or primitive foot trail.
4. Recreational (R) -- Maintained annually and made suitable for travel by hikers of most skill levels. Well marked with many interpretive signs.
5. Mainline (ML) -- This is the current USFS classification, "Trail", which is a travelway limited to use by hikers, stock, and vehicles

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less than 40 inches in width. Some mainline trail are closed to stock or motorized use.

Travel along the historic routes would be limited to the following:

- a) Hikers: U, N, P, R, and ML.
- b) Stock: P, and ML.
- c) Motorized Vehicles (width less than 40 inches): ML only.

Preservation of Removable Artifacts.

Leave hard-to-find artifacts in place. Document and remove the obvious ones and display them in a museum. One practical example is the existence of old #9 telephone wire and insulators at several locations on the ground along the trail. I have made good use of this wire to trace the trail through thick brush and to relocate it when I had otherwise lost it. I hope that this wire can remain in place undisturbed by the USFS or the public. It has already lain along the trail for 50 years without being bothered.

FUNDING FOR PRESERVATION ACTIVITIES

I plan to ask for funding from several groups including the Forest Service USDA, Smithsonian, National Geographic, U.S. Department of the Interior - BLM, Lewis and Clark Trail Heritage Foundation, local historical groups, etc. These funds would be used primarily for doing the photographic and radionavigation surveys and for the creation of archival-quality research documentation.

REFERENCES

- [1] Thwaites, Reuben Gold, ed. *Original Journals of the Lewis and Clark Expedition, 1804-1806*. 8 volumes, New York: Antiquarian, Dodd, Mead, 1904-5; reprint, limited edition, New York: Antiquarian Press Ltd., 1959, in eight volumes.
- [2] Space, Ralph S. *The Lolo Trail, A history of Events Connected with the Lolo Trail since Lewis and Clark*. Orofino, Idaho: Ralph S. Space, 1970. Fourth printing, 1984 by Printcraft Printing Inc., Lewiston, Idaho. For further information, contact the Clearwater Historical Society, Orofino, Idaho.
- [3] Russell, Osborne. *Journal of a Trapper*. Lincoln, Nebraska: University of Nebraska Press, 1965. Original manuscript in the William Robertson Coe Collection of Western Americana in the Yale University Library.
- [4] Russell, Steve Forest. *The Lewiston and Virginia City Wagon Road*. A research report to be published in 1990.
- [5] Howard, Helen Addison. *Saga of Chief Joseph*. Lincoln, Nebraska: Reprinted by University of Nebraska Press, Bison Book Series 1978. Original copyright 1941 and 1965 by Caxton Printers, Ltd., Caldwell, Idaho and published under the title "War Chief Joseph".
- [6] Space, Ralph S. *The Clearwater Story, A history of the Clearwater National Forest*. Orofino, Idaho: Forest Service USDA and The Clearwater Historical Society, 1979. Forest Service, U.S. Department of Agriculture, Northern Region-79-03.
- [7] White, M. Catherine. *Journals of David Thompson - David Thompson's Journals Relating to Montana and Adjacent Regions, 1808-1812*. Missoula, Montana: Montana State University Press, 1950.
- [8] Russell, Steve Forest. *The Lolo Trail - Recommendations for preservation management in the Pierce and Lochsa Ranger Districts*. Available in 1990.
- [9] Russell, Steve Forest. *The Lolo Trail - Recommendations for preservation management in the Powell Lochsa Ranger District*. Available in 1990.

EXAMPLE RESEARCH MAP

I am enclosing a draft copy of one of my research maps to illustrate my efforts to document the historical place names and the trail route [4]. The region between Snowy Summit and Beaver Dam Saddle was chosen because there are plans to have timber sale blocks in that region in the next few years and because I am concerned about a portion of the original Northern Nez Perces Trail in and out of "Horse Gulch" which I have not had the time to identify yet.

The map shows the trail location and place names. It also shows a recommended protective boundary or "strip" for the trail and Motorway so that they can be preserved. I plan to make more of these maps available to the USFS and archaeologists when a preservation plan has been agreed upon and implemented.