RECREATION:
ITS APPLICATION TO THE
UPPER ROGUE RIVER VALLEY

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BY

Clayton Weaver

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January, 1937
March 18, 1937.

Mr. T. J. Starker  
Forestry Department  
O. S. C.  
Corvallis, Oregon

Dear Mr. Starker:

In accordance with your request I have completed the quite detailed study of the Thesis "Recreation: Its Application To The Upper Rogue River Valley" by Clayton Weaver, and I am returning it attached.

Although I am not very well posted as to the standard of work which is expected from the students at O.S.C. I want to say that Mr. Weaver's thesis has evidence of a most intensive study and painstaking effort in getting at the bottom of his subject and I believe that he has used a very good method in his organization of the material.

I was very much interested in every page and could not help but wish that other foresters might have the opportunity. If I were the Supervisor of the Rogue River National Forest I would surely value it as an office possession or even the opportunity of reading it. He or the ranger at Union Creek may already have had access to it since there are a good many references that apparently have come from National forest sources.

The following are some brief remarks regarding certain details of Weaver's write-up:

Page 6. As to the second paragraph I am not sure just what is meant by the red question mark. I believe Weaver has quite successfully attacked the problem in this paragraph. The general public is inconsistent. Travellers will still pass by a comfortable two-bit commercial camp and pay a dollar more in gas to get to a free camp. Commercial camp managers have not yet attained that subtle or unobtrusive salesmanship which Americans demand. In a rapidly changing world, nobody can forecast what will happen in 10 years; but I personally am quite sure that the public areas will grow greatly in popularity even though the touring American be fickle in his likes and dislikes.
Page 7. I don't quite understand what he means in the third paragraph.

Page 8 - Second paragraph. While experienced foresters disagree as to where to draw the line, they would all agree, myself included, at this time that Weaver's example is obviously exaggerated. Who knows what will come in five years.

Page 29 - Middle. Weaver is optimistic as to possibilities of getting timber owners to comply with Forest Service advice in rescuing commercial timber from cutting.

Page 44 - Item 4, Roads, first sentence. R-6 Forest Service experts all agree that entrance and exit should be together. Maybe Weaver has the goods on us. If so I would like his arguments.

F. W. CLEATOR, Recreation Examiner.
April 15, 1937.

Recreation-Rogue River
Upper Rogue Unit

Mr. Clayton Weaver,
610 South 20th Street,
Corvallis, Oregon.

Dear Mr. Weaver:

I am returning your paper entitled "Recreational Development on the Union Creek Ranger District of the Rogue River National Forest."

Before discussing the paper, I should like to know whether it will be possible for you to furnish this office a copy for our files.

I reviewed the paper with considerable interest and pleasure. My pleasure resulted from noting that during your service as administrative guard on the Union Creek Ranger District, you spent your leisure time in such an advantageous way. Your observations were very keen. Although I do not agree with several of your propositions as to the need of further development on the Union Creek District, I must compliment you very highly on the paper as a whole. Most of your observations and recommendations were worthy of serious consideration on our part.

You state on Page 4, that plans were rapidly made for the recreational development of the area. That is true only to a small extent. Plans were made several years ago but they were more or less on a small scale, for the reason that the recreational needs of the future were not fully anticipated. However, these basic plans served for drawing up a program for development of the area by the CCC, and the plans of today are more or less revisions of the old plans. My point is, that we did not rush into the work haphazardly, but approached the job in a systematic way so far as it was possible for us to do so.

cc: T.J. Starker
At the institution of the CCC, recreational use of the National Forests was far less than it is today, and our ideas as to the proper development of recreational areas were influenced by the use at that time. You must agree with me that the recreational development of National Forests has advanced to a large degree in the last three years, and we have found ourselves in an embarrassing position, because of lack of facilities to keep up satisfactorily with the new ideas in recreational development of National Forests. I feel, though, that we have the job pretty well in hand at this time.

On Page 21 you state that recreation will be the dominant use of the Union Creek Ranger District. I must question this statement. Recreational use will have a decided effect upon the use of the natural resources in the Union Creek Ranger District. However, we must take into consideration the very valuable white and sugar pine timber stands. It may be of interest to you to learn that the white pine timber stand on the Union Creek District is considered by the Elston Rust Control people as one of the best stands of white pine in the West, not excluding that well known white pine stand in Idaho. The white pine on the Union Creek District is of as good quality as that of the Idaho white pine. Some people say that it is better. The sugar pine stand is pretty well known to you. These two species of coniferous timber are the most valuable grown in America, and it will not be long before a demand for this timber will exist on this Forest. I feel that when this timber is harvested, it may result in timber utilization being the dominant use on the Union Creek District. However, recreation will have a very great influence on the plans for utilization of this timber.

On Page 22 you specifically mention that ponderosa and sugar pine types are the important species of the Union Creek Ranger District. I believe that white pine is equally important and probably will become more important than either of these species in the future.

On Page 23 you say that there are a few large sugar pines. For your consideration I give you the following figures:

- 3,458,061 M. b.f. D.F.
- 226,920 " " P.P.
- 291,866 " " S.P.
- 385,873 " " W.P.

I am not going to discuss your paper further, but will give you a copy of Ranger DeWitt's comments, with which I largely agree.
I do not want you to feel that any statements that Ranger DeWitt or I make are made in any other spirit than that of constructive criticism. We both enjoyed your paper very much and feel that we should thank you for presenting the problem in the manner you have. We both realize that you did not have sufficient time to secure all the information and data that are needed for such a paper and in view of this fact you did an exceedingly excellent job in preparing it. However, I feel that in preparing such a paper for public consumption, before it is drawn up in final form, it should be reviewed by those who are intimately acquainted with the subject, for the purpose of eliminating any inaccuracies that are bound to occur in a paper of this sort and also to clarify any statements that are not wholly clear. Errors that creep into a paper of this sort sometimes result in bringing criticism upon the administrative offices. Naturally, when one is responsible for the proper development and administration of a unit, in reading a paper commenting on his work, he feels that errors in the paper reflect on himself personally. Both Ranger DeWitt and I know you so well and know that there was no intent on your part to attempt to criticize the officials concerned in the development of the recreational unit. I am bringing this to your attention for the reason that it may help you in the future in preparing papers of this nature and for your own education and protection. When one writes a paper, he must feel that he can back up any statements made.

When you come back to us this year, we will discuss the paper further. For the present, I want you to know that we appreciate highly your presentation of the problem on the Union Creek District.

Very sincerely yours,

Karl L. Janouch

Karl L. Janouch,
Forest Supervisor.

Enclosures.
PREFACE

The information used in the preparation of this paper was obtained by the author while in the employ of the United States Forest Service as administrative guard at Union Creek in the Rogue River National Forest. These observations were made in the summer of 1936.

The Forest Service, however, is not responsible for the accuracy of any statements made or any of the statistics used in this paper. Maps were made from memory, and their scale is only approximately accurate. Basis for making estimates is given with the estimates.

All plans for development of recreational facilities in the Upper Rogue River Valley as stated in this paper have been made after actual observations were made of the particular areas by the author. In making the plans expense of improvements have been considered. Suggested improvements are meant to be practical, and represent the true situation.

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I. **Foundation.**

A. **Introduction: recreational planning.**

There are people who look upon our forests as so many dollars in the form of wood. But others have an entirely different opinion. They think of the forests as a vast park, all of which must be preserved for the health and enjoyment of the public. Somewhere between these two extremes is the correct way to use the forests.

When one endeavors to determine the proper priority of the numerous uses of the forests a very complex problem presents itself. It is not easy to compare dollars with public health and happiness. But somewhere the line must be drawn.

Some areas have a very poor stand of timber but are especially valuable for recreation. Examples of note are places near large centers of population and where natural beauty is especially outstanding. The classification of these lands to exclusive recreational use is conceded by nearly all as worth while. There is in most cases, however, a much more difficult situation to deal with. In the northwestern states, for example, commercial forestry is the leading industry. Where it has been the policy for so long to use these forests for commercial forestry and where so many people depend upon them for a livelihood, a rapid change toward intensive recreation as in the East is impossible.

In such a vast forested country as the northwest there
is need for but few areas to be set aside for recreational use alone. Commercial use of the forests and recreation need not conflict seriously in most instances. Under all circumstances, however, it will be necessary to classify the land to determine which use shall have priority.

Private forest owners of the northwest do not ordinarily consider recreation at all in planning the use of their lands. Only lands of spectacular natural beauty will be included within national parks. This multiple use problem, then, is primarily a problem of the United States Forest Service.

The policy concerning the classification of areas for recreational use must be based upon a complex set of factors. It should be governed to a large extent, however, by the actual use that the public will make of the areas if they are reserved for recreation. To make plans on this basis necessitates careful analyzing of the recreational trends to determine future demands. Forests which will in the future be classed as having recreation as the dominant use must be set aside now. On the other hand, there is no use to set aside recreational areas for which there will never be a demand.

Some lands may be reserved as wilderness or primitive areas. This will not necessarily conflict with other recreational or commercial uses if wise selections are made. For instance, the summit of the Cascades will always be a vast wilderness area for the enjoyment of the recreationist
who likes hardwhips. Economic factors will not permit the devastation of such forests for commercial purposes. The few areas to remain in the natural state as wilderness areas should be chosen from these forests which are very inaccessible and not suitable to commercial ventures. There are plenty of these areas in the northwest.

Another class of recreation should take priority over all commercial enterprises. This class is one which requires only a small area in relation to the number of people who use it. The most important types of recreationists in this category are travelers on the major routes of travel, campers and picnickers, organization and private camps, commercial sites such as hotels and resorts, and summer residences for the exclusive use of permittees and guests. All of these uses will have priority over lumbering interests and over wilderness areas.

It is useless to set aside lands for these uses unless the public demands them at present, or unless there is a probability that future demand will justify their existence. Thus, the intensity of planning for recreation of this type will depend entirely upon the amount the lands will be used if they are reserved.

The most difficult problem arises when the recreational planner has to determine just where the margin comes in choosing areas for camp grounds and the like. This margin between recreation and competing uses of the forest is a result of
numerous social and economic factors. These factors are different for each individual situation. The intensity of recreational use will vary considerably with the attractiveness of the area, accessibility, proximity to centers of population, and the like. The degree that the areas are in demand for other uses will depend upon the type of forest cover, accessibility, etc. In choosing the best use for marginal areas all these factors must be weighed carefully. There is no concrete basis for comparison. The choice must finally be made by summing all the influencing factors and selecting a land use that will provide the "greatest good to the greatest number of people in the long run."

After the forests have been classified and the areas for intensive recreational use are protected from all conflicting enterprises, another question arises. How far should the Forest Service go toward the development of these areas?

With the advent of the CCC into the national forests the development of recreational areas took a sudden boom. Plans were rapidly made and extensive recreational development of the national forests followed with amazing rapidity. Camp grounds seemed to spring from the ground overnight.

But now the critical point is near at hand. Before the CCC came, recreational development was far behind the actual public needs. At present, generally speaking, the forests have recreational facilities that are nearly suf-
ficient to accomodate the demand for their use. Before long, then, the Forest Service must decide upon a policy concerning the extent that it will go in developing recreational areas.

Undoubtedly the limiting factor will be the current demand. It would not be practical to construct recreational facilities if there were no need for them. Instead, a program must be formulated that will develop the areas slightly ahead of the current needs. The development must be just enough to accomodate the maximum number of people that will care to utilize the area at any one time.

The next important decision to be made in recreational planning is concerned with the intensity of development. It has been said that the Forest Service should provide for the public anything in the way of recreation that they want. This may be true. But should the Forest Service furnish all these things to the public free of any charge? The first step is to decide just where the limit of free recreation should be.

This is a subject which is open to a great deal of discussion and is one of the most pertinent topics of the day. Many people hold that because other uses of the forests have to pay a fee, why should not all recreationists do the same. That recreation is a genuine utility cannot be denied. But is it a just and equitable principle that those who use should pay? Much may be said on both sides of this question. Our
government does not have the policy of making a profit from everything it undertakes. The question of receipts should be a secondary objective. No issue is raised when the whole nation supports our schools. Then there should be no issue raised when the Forest Service furnished recreation free to the general public. Uses of the forests that must pay a fee are commercial enterprises, which benefit only a few persons, and summer residences. Recreation falling in this class is for the exclusive use of a few, and it is right that they should pay for the privilege. And they do pay. These are classed as special uses and a reasonable fee is charged.

There has been a statement made that "the American people appreciate much more what they pay for than that which is given free." This may be true in some instances. To some people the fact that a privilege must be paid for in money makes them aware of its value. It is a very small minority, however, who have this attitude. The greatest number of people who use the national forests for recreation realize the values they are getting and appreciate not having to pay a fee every time they turn around.

The public good will and cooperation that is obtained under the present system of free use is of great value to the Forest Service. It is of much greater value than would be the revenue which would come from a recreational fee. The public is just now beginning to really use the national forests and they should be encouraged in every way possible
to do so. There is a surprising number of people who support forestry in the United States on a sentimental and idealistic basis.

The public has come to think of recreation in the national forests as being free. Those who wish to stay in hotels or use commercial utilities in other ways do not hesitate to pay for the privilege. But they still have the idea that they are getting their forest recreation free. None of their good will attitude toward the Forest Service is lost. The brunt of making the charge is shifted to the private individuals operating the concessions in the forests, who in turn pay a fee to the Forest Service. Why, then, should the Forest Service lose the good will of the public when it can indirectly collect a revenue of which the recreationists are unaware?

Now that the decision is made to charge indirectly for some forms of recreation, we immediately wonder what type of facilities will be furnished by the Forest Service and what by concessions.

Here, again, is a phase of the problem allowing for much difference of opinion. Now that recreational development is catching up with the demand, there is need of a definite policy as to how intensive the development of the areas by the Forest Service should be.

Such a policy must be formulated on the basis that what the government furnishes free to one person should be made
available to all the people. Thus, the Forest Service should provide no recreational facilities that it cannot provide in sufficient quantity to accommodate all who wish their use.

There is another angle to the problem that must be considered. It is true that the Forest Service could go so far as to furnish hot water and electric lights to every camper in the forest. This, of course, is an exaggerated example. It would be foolish to say that all which can be furnished in sufficient quantities should be provided. What are the limiting factors, then, determining the recreational development to plan for.

One of the most important items to consider in developing recreational areas is that of preserving the natural beauty. The amount or type of development should never be such that it jeopardizes the naturalness of the area.

With this reservation in mind, develop to the greatest intensity types of recreational areas that serve the largest number of people. Roadside beautification on much-traveled highways is an example of a type of development that should be given a lot of consideration.

Camp, picnic, and sports areas likewise serve a large number of people. Sports areas should be developed by the Forest Service wherever it is possible and there is an evident need for them. Through careful analysis of the situation the type of facilities that should be provided can usually be determined. This will depend primarily on the climate
and nearness to large centers of population. Only the type of sports areas should be developed that will serve a great number of people.

The camp grounds and picnic areas should be developed enough to make the visitors reasonably comfortable. In some picnic grounds the amount of use often justifies the construction of a community kitchen. In all cases the picnickers and campers should be provided with a table and a stove. Special consideration must be given to sanitary conditions.

Other classes of recreation are usually limited to the use of fewer people. These should ordinarily be managed by giving special use permits to private individuals. The area should usually be developed by the permittee under the regulation of the Forest Service.

After considering all the factors that affect recreational planning it is plain that to make a definite set of rules to follow is impossible. The recreational planner must weigh the influencing factors carefully and make his decision on each individual situation according to his own judgement.
B. Description.

1. Location.

The headwaters of the Rogue River lie in the Cascade Mountains in southern Oregon. This part of the river is principally in Jackson County, but is partly within Douglas and Klamath Counties.

The Upper Rogue River Valley will be considered to be that area lying north of Prospect, bounded by the Rogue-Umpqua Divide on the west and north. On the east side the west boundary of the Crater Lake National Park extended southward serves as a marker.

2. Ownership.

Most of the area is included in the Union Creek Ranger District of the Rogue River National Forest. Twenty-nine sections in the floor of the valley at the southern end are in private ownership.

3. Topography.

The Cascade Mountains are of volcanic origin and are very rough throughout the whole length of the range. The Upper Rogue River Valley is no exception. It is surrounded upon all sides by mountains rising to as much as 9000 feet above sea level. The valley itself ranges up to about 4000 feet. The floor of the valley in the southern half of the area is about one and a half miles wide and is nearly level. The northern half of the area is rough and the river in many places flows through sharp canyons cut in the deep soil. The east
side of the watershed slopes evenly from the river in this northern portion, averaging about a 5% grade.

4. Soil.

In the valley floor and on the east side of the valley volcanic ash covers the lava flows from a few inches to hundreds of feet in depth. This soil is loose and erodes very easily if the plant cover is removed. (see Fig. 13). The humus is thin, varying with the type of cover. The west side of the valley is covered with a clay loam. On the high ridges there are many outcappings of rock.

5. Vegetative cover.

The area is situated so that there is a meeting of a number of different types. All but a few acres of the forest is

Fig. 1. Fir-pine forest with recreational sign.

virgin. Five distinct types of cover may be accounted for: the Douglas fir-ponderosa pine, true fir, lodgepole pine, Douglas fir, and old burn. For the location and extent of these
The Douglas fir-ponderosa pine type is important from a recreational standpoint as well as for timber management. It occupies the dry valley floor at the lower elevations. The principal species are ponderosa pine (Pinus ponderosa), and Douglas fir (Pseudotsuga taxifolia). Other species are sugar pine (Pinus lambertiana), grand fir (Abies grandis), silver fir (Abies concolor), and western hemlock (Tsuga heterophylla). The undergrowth is moderately dense, the most important species being manzanita (Arctostaphylos sp.) and sticky leaf laurel (Oenantheus velutinus). (see Fig. 1)

The true fir type occupies the higher elevations. It is of very little importance for lumbering, but has in places open meadows that are important for summer grazing. By far the most important use of this type in the future will be watershed protection and recreation. The principal species involved are Shasta fir (Abies magnifica), alpine fir (Abies lasiocarpa), amabilis fir (Abies amabilis), mountain hemlock (Tsuga mertensiana), and Alaska cedar (Chamaecyparis nootkatensis). Undergrowth varies from sparse to very dense. Many species are represented, huckleberry (Vaccinium sp.) being the most prominent.

The lodgepole pine type varies considerably in composition. In some places the only species present is lodgepole pine (Pinus contorta). On other sites Douglas fir, western hemlock, and Shasta fir become prominent. Undercover varies with the site.

The Douglas fir type occupies the moister sites at eleva-
tions below 5000 feet. The principal species is Douglas fir, with subordinate species in order of crown space being grand fir, western hemlock, western white pine (Pinus monticola), alpine fir, incense cedar (Libocedrus decurrens), sugar pine, western yew (Taxus brevifolia), and silver fir.

Fig. 2. Diamond Lake Highway in Douglas fir forest.

The old burn type of cover occupies areas that have been burned over by crown fires in the past. Reproduction and brush cover vary with the site.

6. Climate.

Recreation in the Upper Rogue River Valley is seasonal. Because of the high elevation snow falls to a depth of four feet or more over the district. It ordinarily starts falling early in October, but in unusual seasons such as 1936 there may be no snow until as late as December. The snow has all
disappeared by May ordinarilly. The main artery of travel from the southwest is kept open into the district all winter.

During the summer season the dry weather characteristic of southern Oregon persists. Spring rains usually end by June 15. From this time until September there are no rains except for occasional summer showers. Maximum temperatures rarely exceed 100° F. Nights are cold, but usually no frost occur during the summer season.

C. General recreational situation.

1. Accessibility in relation to recreational use.

The Upper Rogue River Valley is readily accessible by three major routes of travel. (see Map no. 1). The most important of these is the Crater Lake-Medford Highway. This highway makes the district easily accessible to all of the southwestern travel.

Traffic from the southeast enters the district by way of the Klamath Falls Highway through the Crater Lake National Park.

The area is made accessible to the northeastern part of the state by the Dalles-California Highway which, by way of crossroads, connects with the Diamond Lake Highway near Diamond Lake. The Windigo Pass road, or Skyline road, likewise enters from the north, joining the Diamond Lake Highway. The Windigo Pass road is not surfaced, however, and usually cannot be traveled until July or later.

Visitors from the northwest enter the district by way of the Tiller-Trail Cut-off or the Woodruff Meadows road. The Tiller-Trail Cut-off, although it is a mountain road, will before
many years be a surfaced highway. About ten miles of this project remain to be finished. This road joins the Crater Lake-Medford Highway at Trail. The Woodruff Meadows road enters the district from the west, following from Tiller along the Rogue-Umpqua Divide. This road is not an important entrance to the Rogue River Valley. It is, however, very important as a recreational road. A new road up the North Umpqua from Roseburg will soon be completed. This route will greatly shorten the distance for visitors entering the area from the northwest.


Approximately 175,000 people visited the Upper Rogue River Valley in the season of 1936. This figure is derived from the entrance tally at Crater Lake National Park, census of daily travel on the highway by the Forest Service, and estimates of number of people using camp grounds. The number of visitors has been steadily increasing year after year and can be expected to do so in the future. This number will probably increase to 225,000 by 1945 and the increase may be expected to slow down thereafter. The increase in the next few years will be large because of the fact that the nation is undergoing a great change in regard to the factors influencing forest recreation.

Statistics show that the country is rapidly becoming more urbanized. There have also in recent years been great advances in transportation facilities. The economic status of the country has not been such that it encouraged recreation during the last few years. With the coming of better economic conditions, un-
doubtlessly the people will turn more and more to forest recreation. Another important factor that will tend to make the increase in the number of visitors in the forests is the advance of the machine age, making much more leisure time for the people of the nation. People are now beginning to realize the vast benefits which may be derived from forest recreation. For these reasons the number of visitors using the forests during the next few years, will probably increase until a climax is reached about 1945. The Upper Rogue River Valley, with its high recreational value and good road system, will experience this influx of visitors as much or more than other sections of the country.

Of the 175,000 people who were in the Union Creek District during the summer of 1936, 48% were from states other than Oregon. (see Appendix pp. 6 to 10). The remaining 52% came from various parts of Oregon, approximately 80% coming from Jackson and Klamath Counties. Jackson County had a total population in 1930 of 32,918 people. 15,551 of these lived in urban communities. The total population of Klamath County in 1930 was 32,407, of which 16,093 were urban population. Undoubtedly many of the visitors from these two counties came more than once, being included in the total number of visitors each time.

The total number of visitors in 1936 are estimated to be classed according to their purpose as follows:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berrypickers</td>
<td>1000</td>
</tr>
<tr>
<td>Picnickers</td>
<td>900</td>
</tr>
<tr>
<td>Day excursionists</td>
<td>4000</td>
</tr>
<tr>
<td>Transients</td>
<td>165000</td>
</tr>
<tr>
<td>Fishermen</td>
<td>2000</td>
</tr>
<tr>
<td>Hunters</td>
<td>600</td>
</tr>
<tr>
<td>Other uses</td>
<td>1000</td>
</tr>
</tbody>
</table>
These groups may be quite easily classed as types who use certain recreational facilities.

The transient group includes by far the majority of the visitors. Those classed in this group are people who pass through the forest, not seeing anything except that which is visible from the highways. They are principally the people from other states who are making a tour through the Cascades. The great attraction of Crater Lake naturally draws this type of recreationists.

The group classed as those enjoying the aesthetics is meant to include people who leisurely travel over the area, enjoying the scenery and merely "being in the woods." These are called day excursionists. Most of them are from nearby communities and ride in the afternoons over the forest roads. A smaller part of this group are those who come from distant points and camp for a week or more to enjoy the surrounding country. This latter part of the group use Union Creek Camp about 50%, the remainder being about evenly distributed in the other camps.

The picnickers visited principally at the picnic grounds in Union Creek Forest Camp. There were very few picnickers except on Sundays and holidays. Nearly all these people live in Klamath or Jackson Counties. Hardly any had driven over 100 miles. One organization of 75 members had a Sunday picnic. Two travelling groups of 25 each and one of 175 people stayed in the picnic grounds overnight, using the community
kitchen for cooking. The picnic area has a capacity of 150 to 200, depending upon the types of groups using it. At no time has the number of visitors at one time exceeded 100, except the one group mentioned above. The number of picnickers will undoubtedly increase rapidly in the next few years due to the fact that many more people will become aware of the unusual facilities that have been prepared for their convenience. Large group picnics will also find the facilities at Union Creek to their liking.

The berrypickers almost exclusively camped at Huckleberry Forest Camp. These were mostly inhabitants of Klamath and Jackson Counties. The length of time they used the camp varied from a few days to about six weeks. The average stay was about two weeks. This use will probably not increase more than the present use.

Fishermen and their families make up an important group in the District. They may be divided into two sub-groups: those who visit the forest to fish for a day or a weekend, and those who camp for a week or more and fish. About 60% of the fishermen are of the former type. They generally spend Saturday night camping and return to their homes Sunday. These campers usually stay in one of the camp grounds along the river above Union Creek. The most popular ones are Farewell Bend, Foster Creek, Muir Creek, Crater Creek, Hamaker, and Minnehaha Forest Camps. The second sub-group almost exclusively stays in Union Creek Forest Camp and drives to the fishing
grounds. These campers who stay a week or more are approximately 75% from the state of California.

Hunters form an important group of recreationists only during the deer hunting season. This begins late in September and lasts through October. They occupy principally the small, unimproved camps in out-of-the-way places.

The group of visitors included under other uses include those using the forest other than for recreation. This group is quite small contrasted with the number of recreationists.

Use of campgrounds:

Approximately 4300 people used the camp grounds in the Union Creek District during the summer of 1936. This figure was determined by counts made on inspection trips (see app. p. 12) combined with the number of names on the registration sheets.

The 4300 campground users visited individual Forest Camps as follows:

<table>
<thead>
<tr>
<th>Campground</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huckleberry</td>
<td>1100</td>
</tr>
<tr>
<td>Union Creek</td>
<td>850</td>
</tr>
<tr>
<td>Union Creek Picnic</td>
<td>750</td>
</tr>
<tr>
<td>Farewell Bend</td>
<td>325</td>
</tr>
<tr>
<td>Natural Bridge</td>
<td>200</td>
</tr>
<tr>
<td>Muir Creek</td>
<td>175</td>
</tr>
<tr>
<td>Crater Creek</td>
<td>125</td>
</tr>
<tr>
<td>Hamaker</td>
<td>125</td>
</tr>
<tr>
<td>Foster Creek</td>
<td>125</td>
</tr>
<tr>
<td>Woodruff Mdws. Bridge</td>
<td>125</td>
</tr>
<tr>
<td>Minnehaha</td>
<td>100</td>
</tr>
<tr>
<td>Copeland Creek</td>
<td>50</td>
</tr>
<tr>
<td>Hurryon</td>
<td>50</td>
</tr>
<tr>
<td>Whiskey</td>
<td>30</td>
</tr>
<tr>
<td>Silver</td>
<td>15</td>
</tr>
<tr>
<td>Warpeg</td>
<td>10</td>
</tr>
<tr>
<td>Other camps</td>
<td>200</td>
</tr>
</tbody>
</table>

Campground facilities during the season of 1936 were
sufficient to handle the heavy load of use except over the week-end of July 4-5. The load came upon Union Creek Camp at that time. There were 12 units in this camp ground with a capacity of about 70 persons. Approximately 100 people were turned away from the camp ground over this week-end. The other forest camps absorbed most of the excess. All the camp grounds together, excluding Huckleberry, had a capacity of about 300 persons. At Union Creek, however, 16 new units were added late in the summer of 1936, increasing the capacity of that camp ground to 170, and the capacity of all the camp grounds totaled to 400.

3. Recreational work carried on by organizations other than the Forest Service in the vicinity.

The Upper Rogue River Valley is surrounded on all sides by areas of high recreational value. On the east is the Crater Lake National Park. It has camping facilities to offer the public at Annie Creek and at Crater Lake. (see map no. 1). A large hotel at Crater Lake accommodates hundreds of persons.

A concession at Diamond Lake has a hotel and cabins. Forest Camps have been constructed by the Umpqua National Forest at Diamond Lake.

At Prospect approximately 30 cabins and a hotel are available to travelers. Private camp grounds are located at intervals of a few miles down the river below Prospect.

II. Recreational Plan.

A. Policy as to priority of uses and their administrative correlation.
Recreation is and will be in the future the dominant use in the Upper Rogue River Valley. This is true to a great extent because of its close proximity to Crater and Diamond Lakes. Crater Lake is one of the outstanding scenic attractions of the world and will continue to bring thousands of people to that region. Diamond Lake likewise has a great attraction. This is due primarily to the fishing in the lake. The Union Creek District of the National Forest is of exceptionally high recreational value as a supplementary area to Crater Lake and Diamond Lake recreation centers.

There are several reasons for this classification. Most of the visitors to these areas pass over the Crater Lake Highway, which follows up the Rogue River Valley. The aesthetic qualities of this highway are of great value.

Camping facilities at Crater Lake are quite often not to the liking of their visitors. These people usually return to Union Creek Forest Camp, which is but a distance of 23 miles from the lake. The improvement of the camping facilities by the Forest Service in the Union Creek District will continue to encourage much use from this type of visitors. Many cannot adapt themselves to the high altitude of Crater Lake; others find that they like the seclusion offered by the Forest Service camp grounds. These people camp in the Rogue River Valley and take short trips to the scenic attractions, including Crater Lake. Visitors to Diamond Lake can quite often be classed in the same group. The principle reason for this is the prevalence
of annoying insects most of the season at Diamond Lake. From these viewpoints the outstanding recreational value of the Rogue River Valley cannot be questioned.

Aside from these, however, are other recreational values of importance. Fishing and hunting have long been popular sports in the area. These uses bring many people into the District every season. Berriespicking, camping, natural attractions and picnicking likewise add greatly to the recreational value of the area.

The forests of the Upper Rogue River valley are indispensable as a means of protection of water and soil conservation. This use fits in perfectly with the objectives of recreation. The perpetuation of the natural state of the forests is the thing toward which each of these uses look.

Timber management has not in the past conflicted with recreation. With the advance of trucks and tractors in logging operations and as the utilization of the virgin timber progresses the stands of the Upper Rogue River Valley will be in greater demand. This is especially true of western yellow and sugar pine types. These species occupy approximately ten sections in the floor of the valley below Union Creek. (see map no. 2). As the demand for these species increases the timber in this type should be sold. This cutting should include only mature trees and should be logged with tractors. The stand is of high recreational value only where it adjoins the highway. There should be a strip reserved here. This will be discussed under the subject of roadside improvement.

The Douglas fir type should be open to timber cutting.
The principal species is Douglas fir, but there are a few large sugar pines. The major part of this area can be selectively logged without interfering greatly with recreation. The stands of this type on the east side of the river, however, are to be reserved with the exception of two areas. One is a small area of about 20 acres of second growth timber at the foot of Huckleberry Mountain and two miles southeast of Union Creek. The Huckleberry Road passes through this area. The timber is of excellent quality for construction poles. The other exception refers to the stand in the southern part of the valley on Red Blanket Creek.

A portion of the lodgepole pine type as shown on map no. 2 will be open to timber cutting. This stand is not valuable from a utilization standpoint and may never be cut over.

For the reason that recreational value in the area is closely concentrated on certain areas, the cutting the most valuable stands of timber can be accomplished without interfering with recreation. In areas having high recreational value, however, timber cutting will be a use secondary to that of recreation.

Grazing is an important use in the northwestern part of the District. This interferes to a very limited extent with recreation. In fact, the beauty of the meadows is greatly enhanced by the grazing of cattle and sheep in the area. Unsightly weeds are kept down and the grass looks somewhat like a lawn. This with the spire-shaped alpine firs makes a very desirable setting. Regulated grazing of both cattle and sheep on the area is highly recommended.
B. Regulation of recreational use.

1. Roadside improvement - Diamond and Crater Lake Highways.

a. Location.

The highway enters the upper Rogue River Valley at Prospect and follows up the valley parallel to the river to a distance of one mile north of Union Creek. Here the highway forks, one branch continuing up the river until it enters the Umpqua National Forest four miles southwest of Diamond Lake. The other branch turns east, where it enters the Crater Lake National Park. The main Crater Lake-Medford Highway from the south boundary to the fork is 12 miles. The north fork, which is known as the Diamond Lake Highway, is 22 miles in length to where it crosses the Forest boundary. The east fork of the highway, which is a continuation of the main Crater Lake Highway is about 12 miles long to where it enters the National Park. This makes a total of 46 miles of paved highway. The east fork goes to Crater Lake after leaving the National Forest, then to Diamond Lake, and from there back to Union Creek. This completes a 75 mile loop that includes some of the most magnificent scenery to be found in America. (see map no. 1).

b. Desirability.

Approximately 175,000 people passed over the highways of this district in the season 1936. Very few entered the district for any purpose other than recreation. About 94% of the people traveling through this district are transients who derive from the forest only the aesthetic benefits.
In view of these facts, it follows that one of the best ways to serve the public is to undertake an intensive road beautification program.

c. Topography.

The main highway which goes to the Crater Lake Park follows a gentle, even slope all of the distance. The Diamond Lake Highway, however, traverses a more uneven course. It follows the general route of the river and has an average grade corresponding to that of the river. The stream follows down a canyon much of the way, necessitating many cuts and fills in the highway construction. The soil throughout the whole area is volcanic ash and is very difficult to hold in the fills and on the banks.

d. Cover.

The area is situated so that there is a meeting of a number of different forest types in the district. The stand below Union Creek is Douglas fir-ponderosa pine-sugar pine type. (see map no. 2) This type is uneven-aged and contains a variety of minor species. There is an understory of sticky-leaf laurel and manzanita. (see Figure 1).

The east fork of the highway follows through a section of mature Douglas fir for about two miles. Then for about two more miles it goes through an old burn with a cover of sticky-leaf laurel, manzanita, and scattered aspen in places. The remainder of the distance to the Park boundary is occupied by lodgepole pine thickets. Where it follows through this type there are no other species except the lodgepole.
The Diamond Lake Highway goes through Douglas fir stands with occasional lodgepole pine thickets. Where it follows the river there are many alpine firs.

**e. Prominent objects of interest.**

The area because of its close proximity to such superlative scenery as Crater Lake, is not of great outstanding scenic beauty. It has instead the soft type of scenery, which is not awe-inspiring, but is unsurpassable in furnishing the ease and tranquility of mind that so many seek. The Rogue River is one of the most interesting and beautiful streams in existence. It is very unfortunate that the highway was not constructed so that more views of this river could have been accessible.

In many places the river flows through deep gorges in the lava. The most outstanding of these is the Rogue River.
gorge one-half mile north of Union Creek. The site of this falls and gorge can be seen in Figure 7, but the trees screen them from view.

In other places the river has cut down into the pumice soil hundreds of feet. Examples of this may be seen near the National Park boundary, and on the Diamond Lake Highway near Foster Creek. The view shown in Figure 3 was taken overlooking such a gorge. The river and plant growth at the bottom of some of these chasms make a superb color combination.

Of scientific interest is natural bridge over Rogue River two miles south of Union Creek. Here the river takes an underground course below the lava flow for a short distance.

Likewise of scientific interest is a large sugar pine tree near the entrance of the highway to the National Forest at the south boundary. This tree is reputed to be the largest of that species in the state.

f. Coordination with other private and public organizations.

The National Forest has within its boundaries only a small portion of the whole Crater Lake Highway. It is very desirable to have unity in roadside improvement throughout the whole region. Roads in the adjoining Crater Lake National Park are in some
respects slightly more advanced in roadside beautification than are those of the Forest Service in the area under consideration.

The Forest Service must cooperate to the greatest extent possible with the U. S. Bureau of Public Roads, under whose control is the Diamond Lake Highway. The same cooperation is necessary with the Oregon State Highway Commission. The Crater Lake Highway is under their jurisdiction.

Fig. 5. View on Crater Lake Highway near National Forest boundary.

The Forest Service should cooperate with private owners who have land bordering the highway approaching the National Forest. The area through which the Crater Lake Highway approaches the Forest at the south side is a problem of this type. This area, which is between Prospect and the boundary, a distance of approximately five miles, is part of a forest which has high recreational value. At present most of the
area has not been abused by timber cutting. To maintain this natural condition is mandatory to the maximum recreational value of the Union Creek Ranger District. It is desirable that this area have the same standards of roadside improvements as is practiced in the National Forest itself. A few unusual problems occur on this area of private property. All billboards and other advertising material should be removed from the roadside. An example of the need may be seen in Figure 5. The telephone line should be moved from the roadside far enough so that it is not readily visible to travelers.

The best way to bring the desired practice on this private property is to make it a part of the National Forest. A timber exchange for this property is pending at present. If the Forest Service finds itself unable to obtain this land, every effort must be made to secure a written agreement with the owner of the property to the effect that no timber-cutting be permitted within sighting distance of the highway. The agreement should secure the cooperation of the owner in maintaining aesthetic values in accordance with Forest Service standards.

g. Improvements.

(1) Present improvements.

Roadside improvement in the Rogue River valley has not been practiced since the construction of the highways, except to a very limited extent. Rustic recreational signs were erected in the summer of 1936 at the entrance to four of the forest camps, and at points of interest. (see Figure 1)
Stumps for a distance of one mile below Union Creek have been cut off at the ground.

A parking space has been made at the large sugar pine tree near the south boundary.

The telephone line between Union Creek and the south boundary has been moved back from the road.

Snags have been removed and debris piled on the strip bordering the Diamond Lake Highway for a distance of five miles above Union Creek.

(2) Needed improvements.

(a) Scenic strip as related to timber types.

The scenic strip may be described as that area which is within sighting distance of the highway. The width of this strip varies greatly with the forest cover type. In the fir-pine type in the southern portion of the district a strip of 250 feet on each side of the highway will be sufficient. In the Douglas fir type the strip will be about the same as in the fir-pine type. In the lodgepole pine type 100 feet on each side of the road will be wide enough. All cutting of timber will be prohibited in this strip.

(b) Cover on scenic strip.

One of the most outstanding improvements needed in beautifying the highways of this district is that of removing the stumps that were left in constructing the highway. This problem is most noticeable on the Crater Lake Highway. There are approximately 225 stumps remaining between Union Creek and
the southern boundary, and 200 on the private property between Prospect and the southern boundary. The charred and rotten stumps which show no saw marks need not be removed. Those which have been sawed will be cut off as near the ground level as possible. The portions cut off should be hauled away. Great care must be taken in concealing the bases of the stumps. To do this one can shovel dirt or debris onto the scar. Within a short time the stumps will be nearly invisible to persons traveling along the highway. In roadside improvement everything should tend toward preserving and improving the naturalness.

Logs and down trees that show saw marks plainly are undesirable and will be removed. Old rotten, mossy logs, however, contribute much toward natural beauty. Generally it will not be necessary to remove these. Unsightly dead brush and the like will be taken away. The underbrush and debris should never be removed to such an extent that it gives a park-like appearance. Naturalness is always best. A very desirable type of cover may be seen in Figure 1.

Snags on the Crater Lake Highway do not present a problem. On the Diamond Lake Highway the dangerous snags were removed in the late autumn of 1936. These were piled with debris near the roadside. These piles should be burned at the first opportune time.

A few telephone poles remaining from an old telephone line between Union Creek and the National Park boundary detract from the attractiveness of the area and should be removed.
(c) Vistas.

The type of road that is most pleasant to travel upon is one which presents a continuously changing view. Every opportunity to make such vistas should be utilized. A great many interesting views may be found along the highways in this district that could be made quite attractive by judicious thinning of the cover.

The Crater Lake Highway unfortunately does not follow near the river except for a short distance above Union Creek. The Diamond Lake Highway follows for about half the distance near the river. This affords excellent opportunity for opening interesting vistas. In figure 6 is shown a view taken from a point on the highway where it comes near the edge of the canyon. Many other views such as this are possible in the southernmost seven miles of the Diamond Lake Highway.

Fig. 6. Rabbit ears through the trees from Diamond Lake Highway.
Here the highway parallels the river at a short distance from the canyon's edge. In all places possible some of the timber and underbrush will be removed so that a view is visible through the trees. In the vicinity of Muir Creek open meadows with alpine firs present interesting views. In many places these meadows may be made more attractive to the traveling public by thinning a few trees. It is not undesirable to see these views through scattered timber, however.

At the Rogue River Gorge shown in Figure 7 is a good example of a place where a little wise cutting will greatly enhance the roadside interest and beauty. Behind the brush in this view is a low falls and a foamy rapids. This view can be improved so that it will be at least partly visible from the highway.

Where the highway follows a straight course through the
timber as it does in many places, little can be done toward making a change of scenery. The stand of timber is the outstanding attraction in these areas. An example of an interesting view is shown in Fig. 2. In most places the edge of the timber is irregular in outline and makes an attractive pattern.

This is not true in the lodgepole pine type. On the Crater Lake Highway this type is very thick and it looks in a great many places as if a strip had been mowed for the highway. This situation can be remedied by thinning on the outer fringe of the timber. In many places along these stands a row of young trees has come in at the edge of the highway. These rows of saplings are so straight that they give an appearance in places of a wall. This makes very monotonous scenery. Having these saplings in groups would be very attractive. They should be thinned enough to eliminate the wall-like appearance. This problem has been aided to a very limited extent by thinning done by the State Highway Commission. Care should be taken in burning these and future thinnings so that the remaining trees will not be scorched.

(d) Parking areas.

At places of special attractions along the highways people ordinarily wish to park their cars and admire the scenery for a while. The number of people that stop at any certain place correlates very closely with the size and attractiveness of the parking areas. In some places the space given to this purpose is sufficient. Such a place may be seen in Figure 3. At the large sugar pine tree near the south boundary an adequate parking area has recently been
constructed.

An example of inadequate parking space is evident in Figure 7. There are a number of possible solutions to the problem at this place. Probably the best is to widen the road by the car shown in the picture and on the same side of the road. This will eliminate the necessity of people's walking across the road to see the gorge. Another possible solution is to straighten the highway with a shortcut at this point and use the outside curve as it is now for a parking space.

Another problem that becomes acute very often is the lack of sufficient parking space at the Natural Bridge over Rogue River. This is located on a short spur road taking off one mile below Union Creek. The ingoing and outgoing traffic pass over the same road all the way. This situation will be discussed more fully in the following pages.

(e) Plantings.

Natural reproduction over this area usually furnishes sufficient cover. The soil, however, is volcanic ash and plants will not grow on steep banks. In Figure 2 a typical example of the road banks is shown. These banks, although less steep than the average, are not subject to plant growth. Where at all possible the road banks should be dug back so that they are not so steep and then planted. All planting should be done with native plants adaptable to the conditions. After plants have secured a start so that the soil becomes stable, there will be no trouble in getting the remainder of the cover naturally.
A large borrow pit nine miles from Union Creek on the Diamond Lake Highway can be made unnoticeable by a few plantings.

A stock pile eight miles east of Union Creek on the Crater Lake Highway should be screened by plantings. This being in a lodgepole pine stand, lodgepole pine will be the proper species to use in planting.

A difficult problem presents itself in the ski run near Union Creek. This makes an ugly scar in the summer that is quite noticeable from the highway. (see fig. 13). The area should be sown with grass and weeds that will hide the scar. Probably native weeds will be most successful in becoming established. After the soil has become somewhat stabilized,

![Fig. 8. Rustic sign at Union Creek Forest Camp.](image)

native species of low shrubs may be adaptable to the area.

f. Signs.

The number of signs in the forest should be limited to
those giving needed information and those erected at portals of Forest Camps and the National Forest itself. No advertising signs except those at concessions will be permitted, and those limited to signs necessary to inform the public of services available but not to the detriment of natural beauty. Signs will be erected to point out all special attractions. In most cases these have been recently erected. An observation at the Rogue River Gorge showed an increase of over 200% in the number of visitors stopping after the sign that is shown in Figure 7 was put up.

Only warning and those directional signs at the forks of roads will be permitted to be of the painted type. All other signs must be of the rustic type. (see fig. 8). If logs with the bark on are used in erecting the signs, they will blend quite well with the background. Probably the work of wood borers will make it necessary to replace the logs after a few years. Although less desirable from an aesthetic standpoint, peeled logs may be used if they are stained with creosote.

The usual construction of portal signs is a log monument with a balancing structure on the opposite side of the highway. The structure should be constructed with logs of the same species that predominates in the surrounding stand. Exceptions may be made where the species is not durable. Where there is an absence of natural rock in the immediate vicinity a rock or gravel base to the monument would not fit
in well with the natural surroundings.

(g) Buildings.

All buildings that have been constructed near the highway are of a rustic type and very attractive. (see Fig. 9). Buildings constructed in the future will be set back from the highway and partially screened by trees. Constructions such as water towers and the like must be carefully concealed.

Fig. 9. Ranger's residence at Union Creek.

A summer home by the north entrance to the Union Creek Forest Camp is only a few feet from the edge of the highway and is entirely too conspicuous. The building should be torn down or moved to a better location.

(h) Guard rails.

New guard rails should be of the rustic type. The Bureau of Public Roads has used these on the Diamond Lake Highway. (see Fig. 3). The State Highway Department, however, erects
a different type. (see Figure 7) This painted guard rail does not harmonize with the forest surroundings. A very desirable procedure is to secure the cooperation of the State Highway Commission in replacing this type of guard rails with the type shown in Figure 3.

(i) Stock driveways.

One stock runway needs to be constructed. This is around the Union Creek Recreation Center. Stock going into the upper country in the spring must pass by this place. A driveway should be constructed that will enable stockmen to pass to the east of this recreation center. This project has been started. (see Map. no. 3)

2. Campgrounds.


In the months of June, July, and August, 1936, there were approximately 4300 campers in the Union Creek Ranger District. As has been indicated before, these people vary greatly in their purpose for visiting the forest. The length of time that they camp varies likewise according to the purpose of the visit. The average stay, however, is about five days. The present capacity of all the campgrounds is approximately 400. The uneven distribution of the campers make some campgrounds in great demand while others are unoccupied. This situation can be eased somewhat by improving the facilities at the smaller camps. As it is at present Union Creek Camp, because of its better facilities, attracts a large pro-
portion of the campers. At Huckleberry forest camp the situation can be coped with only by improving present facilities and enlarging. As a whole, with the exception of Huckleberry Camp, there is adequate capacity for the number of campers using the district. New campgrounds should not be constructed until the need for them presents itself.

b. Location and desirability of present camp grounds.

(1) Union Creek, Natural Bridge, and Farewell Bend Camps.

These forest camps are in constant demand throughout the season. (see appendix p.12). Woodruff Meadows Bridge Forest Camp is used considerably and has a good location.

(2) On Crater Lake Highway.

Silver, Warpeg, and Whiskey Camps are all located on the Crater Lake Highway east of Union Creek. (see Map no.1). The use of these camps show that they are not of the type that attract the campers. Silver and Warpeg camps are too near the highway. They do not insure the privacy that popular camp grounds must have. Warpeg especially is only a few feet from the edge of the highway. Silver Camp has very little tall timber for shade.

Whiskey camp is situated a few hundred feet from the highway, but is unattractive. The lodgepole pine thicket, which predominates at this site, does not make a good setting for a campground. The individual camp spots are widely scattered and hard for people to find.

The water supply at each of the camps is not inviting
and possibly not of the highest quality. At Silver and Whiskey Camps the only available water is from slow-moving, sluggish creeks. This type of water source for a campground in highly undesirable. At Warpeg Camp the water is taken from a spring which is well-boxed and clean. The water, however, is too far from the campground.

In view of the disadvantages mentioned above and the fact that very few campers use these three forest camps, it is suggested that they be abolished. All evidence of their existence should be removed from the sites.

(3) On Diamond Lake Highway.

There are three forest camps on the Diamond Lake Highway. These are Foster Creek, Bear, and Muir Creek Forest Camps. Bear Camp has been used recently for a Blister Rust Control camp. Probably the area will not be suitable again for a public campground. The other two are attractive camps and are used considerably. At present there should be no changes made in the capacity of the campgrounds in this part of the valley.

(4) On Diamond Lake Forest Road.

The Diamond Lake Forest Road leaves the Diamond Lake Highway three miles north of Union Creek and follows up the east side of the river parallel to the main highway. On this road are six campgrounds with a total capacity of 95 persons. They are Crater Creek, Copeland creek, Minnehaha, Hamaker, Hurryon, and National Creek Forest Camps. National Creek
Camp has been used for a Blister Rust Control Camp and is not suitable for a public camp. The other four campgrounds are located in very good sites and are sufficient to carry the load in that section. Nearly all the campers who stay there are fishermen.

(5) Other camps.

Numerous other small camps are named on the trails and roads. These have no equipment. They are very helpful, however, in influencing people, hunters especially, to camp in safe, desirable places.

C. Campground construction.

(1) Location.

Public demand will tend to fix the number of campground sites that are to be actually utilized. The demand at present, however, is a poor indicator of the number of forest camps that will be needed in the future. Sites that are suitable to campgrounds, even though there is no need for them now, should be preserved in view of future needs. Likewise, area for extension of present campgrounds should be saved if they are available.

There are a number of important factors which must be considered in selecting sites for campgrounds. Among the most important of these is the availability of a good water supply. There are various ways in which water may be obtained for campground use. For small camps potable water can oftentimes be secured from a small stream nearby. This practice is advised only in cases where the stream water is known to not be contaminated. In small camps the water may be ob-
tained from springs or wells. The larger camps should usually be located where a pipe system can be installed.

Accessibility is another important factor that governs the location of camp grounds. Sites, except for special uses such as hunters, should be chosen on the main routes of travel. This may be summarized by saying that camp grounds should be where the public needs them.

It is ordinarily desirable to locate the camps where there is some kind of natural attraction, such as a lake or a stream. This will be governed somewhat by the beauty of the surrounding area. In a hot, dry, desert-like area a group of aspen trees may have a much greater attraction than a beautiful lake in a mountainous region.

Campground seclusion is a factor worth of careful consideration. At no time should a camp ground be in plain sight of a highway. Secluded spots are always shown preference by the campers.

Nearness to other recreation facilities such as playgrounds or fishing streams is not of little importance.

Topography gives a definite limit to the size of camp grounds and will govern their location to a great degree. Level ground or that with a very gentle slope is preferable to steeper areas. Climate and protection from wind, insects, and the like must also be considered.

(2) Picnic grounds.

In areas such as the Rogue River Valley, which is near large centers of population, it is generally desirable to have picnic grounds in coordination with the larger camp
grounds. The area set aside for picnicking should not be used for camping except in very special cases. The picnic grounds are better situated when slightly apart from the regular camp ground. This separation must be enough to insure campers a feeling of seclusion from the usual rowdy picnic crowd and conversely. This can sometimes be accomplished by careful location of roads, so that picnickers do not pass through the camp ground at all.

(3) Sports areas.

The demand for sports areas in the National Forests is limited at present, except for winter sports areas. The public will probably wish more development of playground facilities in the future. About the only method of determining such a demand is to build playgrounds and observe the intensity of their use. They can best be situated in connection with large camp and picnic grounds.

(4) Roads.

The best plan for a camp ground road system gives the exit separate from the entrance. Such a loop road allows the greatest freedom from traffic problems. If this plan is not practicable, however, the entrance should be a two-way road. This road should form a loop within the camp ground proper. In the camp ground roads can be but a single lane. Traffic is directed around the loop by placing the campsite parking spaces at 45° angle to the road.

(5) Recreation trails.

There are trails of a practical nature for the quickest pas-
sage from one point to another, such as those for fire protec-
tion and patrol. There is another type of trails which may
frequently be blended with the first type in close associa-
tion. These are the trails constructed primarily for enjoy-
ment and leisure. They are trails where the hiker may loaf
and contact nature in comfort.

Such recreation
trails must be planned
thoroughly to unfold
in sequence a series of
connected vistas, which
as a whole make for uni-
fied variety. Such
trails when properly
constructed awake in
the recreationist a
strong desire to see
what is around the next
corner. There is a
strong sense of quiet
invitation.

To give the max-
imum benefit to the
public, recreation
trails should terminate in or near some place of major in-
terest, such as a camp ground or picnic ground. The trails

Fig. 10. Yew tree on recrea-
tion trail at Union Creek,
believed to be the largest
in existence.
should lead through interesting scenery. The interest may be manifested in objects of natural or scientific attraction. (see Figure 10). Again, the trail may lead through an area of awe-inspiring beauty. In any case the object is the same — make them interesting.

The trails should ordinarily be made in loop fashion, ending at the place of beginning. It is best to have a variety of trail lengths. Some should be short enough that only an hour or two is sufficient to complete the trip. Others may be so long that the hiker may be gone for a whole day. The lengths may vary between these two extremes.

(6) Unit camp groups.

Within a camp ground the placement of individual camp sites requires a great amount of planning. Their location will depend principally upon the topography and cover. There are a few principles, however, which should be observed as far as possible.

To facilitate easy management it is well to have the units divided into groups. This division must not be apparent to the casual observer. A convenient size for the group is from four to eight units. If situated correctly, the units can use the same latrines and wood pile. Another reason for such an arrangement is that the ordinary camper likes to feel that he is not completely alone. Although each unit is secluded, in a sense, from all the rest there is that community feeling.

The camper is comforted by it without being aware of this feeling. Such a group is like a small community as
compared to a large city, where the community spirit is lost almost entirely.

These groups, however, must be arranged in such a fashion that they do not break the continuity of the camp ground.

(7) Individual sites.

The plan for individual camp sites should be more or less standardized according to some definite principles that usually apply. The arrangement of the unit varies with the type of use. Some campers have only an automobile; others have in addition a house trailer.

The latter type of camper is not very abundant at the present time in Oregon. If about one in four units were made to accommodate trailers, there would be enough to satisfy the present demand. In all probability, though, this traveling in house trailers will become increasingly popular in the future. In order to be prepared for such a demand it is necessary to plan camp grounds to accommodate a large number of house trailers. This may be accomplished by a variety of plans. In large camp grounds it is advisable to have a separate section developed purposely for trailers. This will tend to group campers of this type together and simplifies the camp ground management. Parking spaces for units of this type must be of the loop type that does not necessitate backing the trailer about.

Parking areas in camp units where there is to be accommodations for automobiles only, a short spur road is
most desirable. This spur should extend from the main camp
ground road at a 45° angle in the direction that forces traf-
fic to go in the desired direction. The length of the park-
ing space should be such that it puts the automobile at the
edge of the camp. Under no conditions should campers be
allowed to drive their cars into the camp space. The drive-
way, therefore, should be blockaded with logs or rocks, de-
pending upon the surrounding ground cover. All camp ground
construction must harmonize with surroundings.

The ordinary equipment for each camp unit is a table,
stove, and possibly a bench. In small camps used by a spe-
cific type of campers that want convenience instead of beauty,
board tables and sheet iron stoves may be used.

In the larger camps used by the general public all equip-
ment should be of the rustic type. Tables are usually con-
structed of logs sawn in half. The table and benches are
mounted on a cement foundation and are immovable. The type
of stove varies to harmonize with the surroundings. Stone
stoves are advisable in nearly all cases. At the back of
the stove should be a wing constructed to make a fireplace.
A log bench facing the fireplace adds to the attractiveness
of the camp unit.

The floor of the camp must be fairly even. This is
especially true of the space selected for the tent. The
site may be made very unattractive by the presence of humps
and holes in the camp. These should always be leveled when
the camp is constructed.
One water hydrant is sufficient to furnish two camps and possibly more. The same condition is true of the garbage can or pit. Be careful to screen these from sight of the road, and not to get them too near the camp.

(8) Sanitation.

Water supply should be checked frequently to make sure that it is potable.

The kind of latrines will vary with the intensity of use of the camp grounds. They should always be constructed and managed under approved sanitary conditions.

Garbage disposal in large camp grounds should be by cans. In smaller, out-of-the-way camps, pits will serve as well. Garbage pits should be constructed so that they are fly-proof.

In the pumice soil characteristic of the Upper Rogue River Valley dust on the floor of the camp causes a problem. Grass has been used successfully in Union Creek Forest Camp in a few camp units. As a general rule, however, the intensive use kills out the grass and a layer of dust develops. Gravel on the floor of the camp would not pack down. This is an undesirable practice. The most promising solution to the problem is to put pine needles on the ground. This has been practiced to some extent by the campers at times and has proven very satisfactory as a means of eliminating dust, still retaining the natural effect.
Wood supply.

The camper smiles with pleasure when he finds that the Forest Service has been so kind and generous that they have cut his wood for him. Ordinarily he little realizes the underlying reason for the cutting of the wood. He doesn't realize the damage that his marauding axe does when he cuts it for himself. The only way to eliminate this accumulative damage to the cover by campers is to cut their wood for them. This should be done at all camp grounds except those which are seldom used.

In the Union Creek District a great many places may be found where wood is easily obtainable. First of all, the trees killed by insects should be utilized. This includes the ponderosa pine killed by Dendroctonus brevicomis and the grand fir killed by Scolytus sp. Other sources are important. Among these is fire-killed timber. This is very limited, however. A survey should be made of the fire-killed timber near the Woodruff Meadows Bridge to determine its value for wood. Additional cuttings for wood may be made any place in the district except near recreation centers, in highway scenic strips, and in timber reserved for recreation. (see Appendix map no.1)

With the present use approximately 12 cords of wood should be placed annually at Union Creek Forest Camp, 5 cords at Farewell Bend Camp, and 20 cords at Huckleberry Camp. About 1 to 3 cords should be placed at each of the other designated camps.
(10) Fire protection.

Under certain conditions campers cause a serious fire risk. In order to minimize this risk the Forest Service personnel should use all strategy possible to persuade campers to use the improved camp grounds. The camper, not being well-versed on the rights that he could demand if he has a campfire permit, can usually be swayed toward the camp grounds. In fact, very few persons fail to realize that the convenience offered by the forest camps is a privilege which cannot be overlooked. The occasional camper who insists upon being to himself necessitates careful watching.

Forest camp grounds must present no fire hazard. All inflamable material in the camp units should be removed the beginning of each season. If necessary, fire lines may be constructed around the whole camp ground. Fire lines, however, should not be made except when conditions make it necessary. They tend to destroy the feeling of spaciousness.

d. Individual camp grounds.

(1) Natural Bridge Forest Camp.

(a) Location.

The natural Bridge over Rogue River is one of the outstanding points of interest in the District. The bridge is so well-known that a great many of the tourists look forward to seeing it whenever they are in its vicinity. The location is about one mile southwest of Union Creek, and
west of the Crater Lake Highway one-half mile. A dirt road leads in to the area from the main highway. This road is not graveled and gets very dusty under the heavy traffic in the summer. A thin layer of gravel would serve to keep the dust down on this road, thus adding greatly to the attractiveness of the drive.

(b) Camp sites.

The Natural Bridge Forest Camp is situated approximately 900 feet up the river from the natural bridge. At present there are five units, each having a painted board table and "ice can" stove. The present equipment should be removed and replaced with rustic equipment in the new sites as located on the development plan. (see Appendix map no. 4). For each of the five proposed camp sites a log table and rock stove will be standard equipment.

Latrines and garbage pits are to be located as shown on the plan. These should be bark covered to give a rustic effect.

Water must be obtained from the river. This plan is not satisfactory, but there is no alternative. The underlying lava flow eliminates the possibility of digging a well. Wood will be hauled and put in one centrally located pile, concealed somewhat by brush.

The stoves and tables at the end of the road are to be removed. Likewise those about 300 feet from the turn-around. Each of these two camp sites is too near the dusty road. Under
the development plan as shown in the appendix all the camp sites are in one group. This is much preferred to having camps scattered all along the main road. The natural bridge itself is a scenic attraction that should be developed separately from the camp ground.

(c) Parking space.

Studies of traffic problems at the natural bridge in the 1936 season revealed a very inadequate parking space. There is a poor parking area for about five cars. The road runs to a blind end, leaving no way to turn around except by pulling ahead and backing. Even then it is difficult to turn because of the loose sand. To further complicate matters, quite often many cars, sometimes ten or more, visited the area at one time. These cars had to be parked at the edge of the road, and made traffic congestion very serious.

To remedy this situation the proposed plan, as shown in the appendix, allows a large space for a turnaround and parking. There is enough parking area to accommodate all visitors even on the days of maximum use, such as July 4.

Most of the turnaround must be constructed over a bed of fairly loose sand. This difficulty can probably be overcome by hauling in a layer of soil that will pack easily. A shallow layer of gravel should then be put on top of the soil.

The comfort station will be of stone construction. There
is to be chemical toilets in each end of the building with a registration booth occupying the center portion.

(d) Trails.

The ground between the end of the road and the natural bridge is the top of a lava flow. It is so rough that many of the older people find it difficult to walk to the bridge. In the plan this is remedied by roughly constructed trails. These must be made of rock in a rough cobblestone fashion. Rocks can be laid in such a fashion that they present a natural effect, still making walking much easier.

(2) Union Creek Forest Camp.

(a) Road system.

The road system of this camp ground is composed of two separate loops connected by a road through the picnic grounds. (see appendix map no.3). This system is very confusing to strangers. Upon entering either entrance, signs direct them to that side of the camp ground on the same side of the creek as the entrance. The only way to get to the other half of the camp, strangers not being aware of the other entrance, is to go through the picnic grounds. At each end of this connecting road, however, is a sign stating that the area is for picnicking. This sign is necessary to keep people from camping in the picnic ground. Campers wishing to get into the other portion of the area either wander around until they find the way or ask someone for directions.

This problem could be very simply remedied by construct-
ing a cross road below the picnic grounds, as is shown by dotted lines in map no.3. A bridge can be constructed here at a very reasonable expenditure.

(b) Picnic grounds.

The picnic area is large enough to accommodate as many people as are likely to be there at one time. A large parking space is provided. Flush toilets have been constructed, adding much to the sanitary conditions. A large community kitchen has been erected for the convenience of the picnickers.

A small picnic area near the highway has a very poor location. (see map) The tables are quite near the rear of one of the concessions. This leaves the impression that the picnic area is a part of the cafe property. The whole space is set aside from the main picnic ground. During the
early part of the 1936 season a great many people lunched in the small area, because they were not aware of the better conveniences in the main camp. As the season progressed, however, observations showed that use by picnickers rapidly decreased. During the latter part of the season nearly everyone used the main picnic grounds.

From these observations it is obvious that this small picnic area by the highway is very undesirable. It is entirely too inviting to "night parties" in connection with the cafe. The tables should be removed to some other forest camp or the main picnic grounds.

(c) *Sports area.*

The sports area has been developed but very little.

*Fig. 12. Backstop at Union Creek Sports Area.*

The sports facilities at present consist of only a baseball diamond. The approved development plan of the area
includes a swimming tank, wading pool, horseshoe and volleyball courts, a bath house, and two cement tennis courts. This project should be classed in priority as below the development of the other forest camps. The swimming pool and the cement tennis courts especially will necessitate large expenditures. This time and money can be used in other places with a greater good at the present time.

As the recreational plan for the District nears completion and the public use increases, the sports area should be developed. Before completing the plan the necessity of having more than one cement tennis court should be given much consideration.

The approved plan calls for a parking space within the sports area. The playground will be used mainly in conjunction with the picnic grounds. The same parking space can be used very conveniently for both areas. Construction of the proposed new parking, therefore, would be a waste of time and money.

(d) Camp units.

At the end of the 1936 season there were 28 camps installed. Each unit has a log table and a rock stove. Water hydrants are conveniently located throughout the whole camp ground.

(3) Huckleberry Forest Camp.

This campground is unimproved except for the sanitation facilities and a few tables. To accommodate the max-
imum load about 100 units equipped, each with a table and stove, is needed. This equipment need not be of an expensive type. It must be sturdy and built for rough service. Beauty is not an important factor in this instance.

This camp ground can be partly equipped with the board tables and ice-can stoves that will be replaced in other camp grounds with rustic equipment.

(4) Farewell Bend, Foster Creek, Muir Creek, and Woodruff Meadows Bridge Forest Camps. These camp grounds all have about the same intensity of use. The capacity is sufficient to accommodate the maximum number of visitors. Equipment in all of these camps should be replaced with the rustic type.

(5) National Creek, Copeland Creek, Minnehaha, Hamaker, Hurryon, and Crater Creek Forest Camps. There is no need to change the status of these camp grounds under the present need.

3. Fish and Game.

a. Stream management.

(1) Present condition.

The Upper Rogue River and its tributaries contain over 100 miles of trout water. The river is so rough that no salmon can possibly get above Prospect.

The species of trout in the streams are rainbows (Salmo gairdneri irideus), cutthroats (Salmo clarkii clarkii), and eastern brook (Salvelinus fontinalis). The rainbows and
cutthroat inhabit most of the streams. A few of the tributaries have eastern brook. This species has been planted, and lives alone in these streams. It is a characteristic of the eastern brook that they live alone when introduced into a stream.

The cutthroats and rainbows are the native trout of the northwestern streams. In natural habitats these species have a delicate balance in their life cycle. For instance, only one species occupies the spawning grounds at any one time. To introduce exotics will probably upset this balance. Why then should foreign species be introduced when we have such fine native trout? Eastern brook, rainbows, and cutthroat do not fit well in the spawning beds, because it destroys the intricate balance of the native species. Much study, then, should be taken before planting eastern brook trout in any more tributaries of the Rogue.

The trout in the Upper Rogue have been exposed to very heavy fishing, especially the last few years. During the 1936 season the trout in all of the streams were depleted far below the safe margin. For the whole District 90,000 trout were planted in the summer of 1936. In such a great fishing stream as the Rogue scientific fish management is essential. Every effort should be made to cooperate with the state and biological survey in getting a study made of the stream conditions, and in securing enough fingerlings to keep the stream stocked. The Forest Service, as in the
past, should aid in planting the fish and urge the federal and state fish hatcheries to give the stream more attention.

b. Game management.

The only game animal of any significance in the District is the Columbian black-tailed deer (Odocoileus hemiosus macrotis). This species is a problem which cannot be handled by the Forest Service. The deer use the Upper Rogue River Valley only for summer range. The principal part of the management of the deer, then, is entirely out of the jurisdiction of the Forest Service. Every effort, however, should be made to cooperate with the state in law enforcement and in game management on the national forest during the season while the game is there.

c. Fur-bearers.

The upper Rogue River and tributaries were once teeming with beaver (Castor canadensis pacificus). At present only a few, if any, remain in isolated places. Their disappearance was very likely due to excess trapping. There is a possibility that with proper management the beaver could be brought back to prominence. A study of the biology of the species in relation to this stream should be made. If it is found that the beaver were not killed out by some biotic factor, it is highly desirable to plant a few in some of the tributaries to the Rogue. Flat Creek is especially adaptable to beaver. In this stream their actions would conflict not a bit with any other use.
4. **Winter sports.**

A ski run has been made near Union Creek. During the winter of 1935-1936 over 1000 visitors used the area, proving that this has been a worth-while venture. The ski run is badly in need of planting to stop erosion. This has been discussed elsewhere in this paper.

![Ski run near Union Creek.](image)

### Fig. 13. Ski run near Union Creek.

4. **Special use permits.**

   a. **Business utilities.**

   In the Union Creek District there are only two concessions. These are both at Union Creek. One has a cafe and service station. The other has cabins, hotel rooms, and a cafe. Competition between these concerns is very keen as far as the cafes are concerned. A great amount of tact is needed on the part of the Forest Service to keep up friendly relations with both parties.

   b. **Summer homes.**
(1) **Present status.**

The demand for summer homes is rapidly increasing in
the district. At present there are over 35 lots that have
residences. This number will undoubtedly increase rapidly
in the future.

There are three colonies of summer homes on the District.
Only a few lots are in one of the two areas at Union Creek.
(see map no. 3 for location). The other colony is at Castle
Creek. There is considerable room for expansion in each of
these three areas.

(2) **Management of.**

(a) **Construction standards.**

In locating summer home lots care should be taken not
to get them in a straight line. They may be located in
tiers at an angle to the natural attraction. The minimum
size is about one-third acre. The site for the building
should be chosen before fixing the boundary lines. It is
well to have not over ten lots without a break of some
sort.

Buildings must be planned and constructed so that they
harmonize with the surrounding area. Naturalness is the
primary objective in any building construction in the national
forests.

Zoning may be necessary in some places. Cost of houses
forms the best basis for such a classification. In nearly
all instances the Forest Service should have a minimum cost
for the residence. All building plans must be approved by
the Forest Service before any construction work is done.

b. Sanitation.

Inspections of the summer homes should be made by a forest officer at irregular intervals. Sanitary rulings must be enforced rigidly.

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APPENDIX
Summer home colony

Camp ground with over 1000 visitors

Camp ground with 100 to 1000 visitors

Camp ground with less than 100 visitors

Area of high recreational value

Area of medium recreational value

Timber to be reserved
Map 2

Legend:
- **Douglas fir** - Yellow
- **ponderosa pine type** - Green
- **true fir type** - Blue
- **Lodgepole pine** - Red
- **Douglas fir**
- **Old burn**
LOG SEAT ARRANGEMENT

Recruitment trail

Clear of inflammable material

Fireproof ash receptacle

Creek
CENSUS OF TRAVEL ON
CRATER LAKE HIGHWAY

Taken at Union Creek

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<th>Number of Oregon cars</th>
<th>Number of Foreign cars</th>
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<td><strong>Totals</strong></td>
<td><strong>132</strong></td>
<td><strong>103</strong></td>
</tr>
</tbody>
</table>
# Census of Travel on Crater Lake Highway

**Taken at Union Creek.**

**Saturday, Sept. 19, 1936.**

<table>
<thead>
<tr>
<th>Time of day</th>
<th>Number of Oregon Cars</th>
<th>Number of Foreign cars</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-7 A.M.</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>7-8 A.M.</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>8-9 A.M.</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>9-10 A.M.</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>10-11 A.M.</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>11-12 A.M.</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>12-1 P.M.</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>1-2 P.M.</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>2-3 P.M.</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>3-4 P.M.</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>4-5 P.M.</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>5-6 P.M.</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>6-7 P.M.</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>7-8 P.M.</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8-9 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-10 P.M.</td>
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<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>161</strong></td>
<td><strong>97</strong></td>
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</tbody>
</table>
## Camp Ground Census

<table>
<thead>
<tr>
<th>Date</th>
<th>Muir Creek</th>
<th>Foster Creek</th>
<th>Farewell Bend</th>
<th>Nat. Bridge</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No. of Camps</td>
<td>No. of People</td>
<td>No. of Camps</td>
<td>No. of People</td>
</tr>
<tr>
<td>June 27</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>July 4</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Aug. 1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
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<td>2</td>
<td>7</td>
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</tr>
<tr>
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<td>11</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Date</th>
<th>Woodruff</th>
<th>Meadows R.</th>
<th>Silver</th>
<th>Warpeg</th>
<th>Whiskey</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No. of Camps</td>
<td>No. of People</td>
<td>No. of Camps</td>
<td>No. of People</td>
<td>No. of Camps</td>
</tr>
<tr>
<td>June 27</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>July 4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
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<td>0</td>
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<td>25</td>
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<tr>
<td>Aug. 1</td>
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<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
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<td></td>
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<td>5</td>
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<td>2</td>
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<td>29</td>
<td>0</td>
<td>0</td>
<td>9</td>
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</table>
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