Justification

In previous years relatively little information was gathered regarding heavily used backcountry trails and campsites. This year a Servicewide permit and central data processing system became available through the Division of Natural Resource Management, WASO. With this new system, it has become possible to gather and process information including zones of travel, entry and exit points, number of users per day, origin of visitors, party size and length of stay, and method of travel. (see attached "2. Report Description") By switching to this system, we can now analize backcountry use more effectively, which will lead to better-informed judgements regarding the backcountry of Crater Lake National Park.

Objectives

The new backcountry permit system should enable us to build a data base of information on backcountry use patterns. It should give us information on trails, campsites, and zones which are heavily used and also those which are receiving minimal use. The permit (form 10-404) should be relatively simple for employees to fill out and should be appropriate for self-registration stations which accomodate hikers entering the park on the Pacific Crest Trail.

Procedures

Backcountry zones and points of entry were established as outlined in NPS memo "Backcountry Use Permits", March 22, 1977. (see "4. Design of Park Permit System") Maps designating all zones, campsites, and points of entry were made and placed at entrance stations, Headquarters, and the Exhibit Building. Instructions for coding permits and samples were placed in a folder accompanying each map. (see attached materials -- maps and instructions)

After permits were issued, pink and white copies were sent to Headquarters and collected once a week by a member of the resource management crew. Both copies were checked for accuracy of coding and corrected if necessary. White copies were forwarded to WASO and pink copies retained in the park.

Self-registration stations were constructed at the beginning of the summer and placed at the north boundary on the Pacific Crest Trail and at the junction of the south PCT and the Stuart Falls trail. Stations had instructions for self-coding of permits as well as blank permits, a zone map, and backcountry regulations. (see attached materials) Completed permits were picked up every one or two week on backcountry patrols and blank permits were restocked.

2. REPORT DESCRIPTIONS

SUMMARY OF TOTAL PERMITTED BACKCOUNTRY USE

This report will show summary backcountry use information for
each Park, Region, and Service-wide, monthly and annually. The
Regional report will show a summary of each park in the Region,
and regional totals. The Service-wide report will show a sum-
mary of each Region and Service-wide totals. The corrected
months' reports will also be produced annually, so that late
permit additions will be reflected.

TABLE 1: TRAVEL DISTRIBUTION

This report will be 'run' for each park, monthly or annually,
as requested. The corrected months' reports will also be pro-
duced annually. Travel zones will be defined by each park, and
report detail lines and subtotaling will reflect the one, two,
or three level hierarchy of travel zone codes.

TABLE 2: ENTRY AND EXIT POINT USE

This report will be run for each park, monthly or annually, as
requested. The corrected months' reports will also be produced
annually. Entry/exit points will be defined by each park, and
report detail lines and subtotaling will reflect the area
delineations.

TABLES 3, 4, and 5: NUMBER OF PARTIES PRESENT ON EACH DAY, NUMBER OF PERSONS PRESENT ON EACH DAY, and NUMBER OF STOCK PRESENT ON EACH DAY

These reports will be run for each park, monthly or annually, as

requested. The two plots, TABLES 6 and 7; PERSONS PRESENT ON
EACH DAY AS A PERCENT OF MAXIMUM PERSONS PRESENT, and PARTIES
PRESENT ON EACH DAY AS A PERCENT OF MAXIMUM PARTIES PRESENT will
array the use data graphically for one year, if requested. These
tables can also be run for selected use classes, travel zones or
sites as a special request option.

TABLE 8: ORIGIN OF VISITORS

This report will be run for each park, monthly or annually, as
requested. The report will show the origin of group leaders for
areas determined by each park based upon zip code ranges.

TABLES 9 and 10: LENGTH OF STAY and PARTY SIZES

These reports will be run for each park, monthly or annually,
as requested.

TABLE 11: PRIMARY METHOD OF TRAVEL

This report will show backcountry use by method of travel in
designated wilderness areas, and backcountry areas by power or
non-power access for each Park, Region, and Service-wide. It
will be run monthly and annually, if requested. The previous
months' reports will also be produced annually so that late
permit additions will be included.

TABLE 12: TRAVEL ZONE USE BY ENTRY POINT

This report will cross-array the travel zones and entry points
used to access them, as defined by each park. The report will
be run monthly or annually as requested.

TABLES 13 (A,B) and 14: LENGTH OF STAY BY TRAVEL ZONE

(for Number of groups and Number of People) and PARTY SIZES BY

TRAVEL ZONE (for Number of Groups)

These reports will array the TABLE 9 and TABLE 10 data by

locations within each park, monthly or annually, as requested.

TABLE 15 (A,B): PRIMARY METHOD OF TRAVEL BY TRAVEL ZONE (for

Number of Groups and Number of People)

This report will array TABLE 11 data by locations within each

park, monthly or annually, as requested.

PACKCOUNTRY USE PERMIT

Complete all blanks that are shown completed in this sample:

Always the same: CLNP 9320

Show vehicle license here (number & state).

Use ENTRY/EXIT nomenclature and code from data sheet.
Put code in the first two boxes from the left as shown.

The number of nights in each location.

Use proper nomenclature and code for back-country zone or campsite from data sheet.
Use one line for each stop on trip.

U.S. DEPARTMENT OF THE INTERIOR — NATIONAL PARK SERVICE

BACKCOUNTRY USE PERMIT

The visitor must have this permit during the visit.

When signed, this single-visit permit authorizes.

Field							CAMPSITE NAME	ZONE-SITE	NIGHTS
NAME JOHN DOE									
ADDRESS 1220 MAPLE ST.							UNION PK.	2A	
CITY PINEVILLE CA. ZIP	5	4	3	2	1		CASTLE CR.	2G	
		1	2	3	4	5	RED CONE	2B	
To visit CLNP	9	3	2	0			RED CONE SP. Camp	1B	
		6	7	8	9				
ABC-123 (OR) FROM MO/DAY	0	6	1	1					
Give best estimate of start		10	11	12	13				
and finish dates THROUGH MO/DAY	0	6	1	5					
		14	15	16	17				
Location of entry PCT-SOUTH	A	C							
		18	19	20					
Location of exit PCT-NORTH	C	A							
		21	22	23					
Primary method of travel	O	1							
		24	25						
Number of people in group	0	4					REMARKS CAMPFIRE	C	F
		26	27					77	78
Number of pack or saddle stock							DATE 6/6	VISITOR'S SIGNATURE J. Doe	
		28	29						
Number of watercraft or other craft							DATE 6/11	ISSUING OFFICER'S SIGNATURE W. Ranger	H G
		30	31					79	80

Use one of these travel codes:
Foot — 01
Horse — 02
Ski — 07
Snowshoe — 08
Snowmobile — 11

Note if using:
Campfire — CF
Campstove — CS

Place permit issued:
Headquarters — HQ
Exhibit Building — EB
North Entrance — NE
Annie Spring Ent. — AS

1. This permit authorizes...

   Enter the name, street address, city, state, and zip code
   of the person requesting the permit as a recognized group
   leader.

   <u>Blocks 1-5</u>

   Enter the 5-digit zip code number that identifies the
   address of the individual requesting the permit.

   99998 may be used for foreign addresses.
   99999 may be used for Canadian addresses.

2. To visit...

   Enter the park name.

   <u>Blocks 6-9</u>

   Enter the standard 4-digit National Park Service
   organization code for the park.

3. Start and finish dates

   <u>Blocks 9-12</u>

   Use numbers to indicate the month and day on which the
   trip will begin. (the first night in the backcountry.)
     e.g. July 8 = 0708

   <u>Blocks 13-16</u>

   Use numbers to indicate the month and day on which the
   trip will end. (the day of departure from the backcountry.)
     e.g. July 10 = 0710

4. Location of entry

   Show the name of the trailhead or entry point used by
   the party.

   <u>Blocks 18-20</u>

   Enter the code used to identify the trailhead or point
   of entry to the backcountry.

5. Location of exit

   Show the name of the trailhead or exit point used by the party.

   <u>Blocks 21-23</u>

   Enter the code used to identify the trailhead or point of departure from the backcountry.

6. Primary method of travel

   <u>Blocks 24-25</u>

   Enter one of the following codes for the method of travel used by the party. Use only box 25 if you do not use the leading zero.

        01 - Foot (hiking)
        02 - Horse (riding)
        03 - Boat (non-power)
        04 - Boat (power)
        05 - Canoe or kayak (non-power)
        06 - Canoe (power)
        07 - Ski
        08 - Snowshoe
        09 - Motorcycle or skooter
        10 - bicycle
        11 - Snowmobile
        12 - Motorized vehicles (4-wheel drive dune buggy, all-terrain vehicles)
        13 - Other (non-power)
        14 - Other (power

7. Number of people in group

   <u>Blocks 26-27</u>

   Enter the total number of people in the party. Use only box 27 if you do not use a leading zero.

8. Number of pack or saddle stock

   <u>Blocks 28-29</u>

   Enter the total number of pack and/or saddle stock used by the party, including horses, mules burros, and other animals not used for packing or riding. Use only box 29 if you do not use a leading zero. Leave blank if none are used.

9. Number of watercraft or other craft

<u>Blocks 30-31</u>

Enter the total number of watercraft or other craft used by the party. Leave blank if none are used.

10. List all campsites or travel zones the party will use and the number of nights to be spent in each site.

Campsite or travel zone name in the line. In the boxes to the right of the line (zone/site) enter the code used to identify the use class and travel zone and/or campsite area, that your park uses to identify the party's destination for each night spent in the back country.

<u>Nights camped</u>

Enter the number of nights the party will stay in each of the campsites listed next to the appropriate code.

<u>Long trips</u>: If the party plans to spend more than 9 nights in one area, enter the campsite or travel zone code on the next line also, and the remaining number of nights to be spent, e.g.:

Campsite Name	Campsite or Travel zone	Nights Camped
Green Meadows	123	9
Green Meadows	123	2

If the party plans to stay in more than 10 different campsite areas, use one permit for the first 10 sites. Show start and finish dates for these 10 sites only. Use another permit for the remainder of the trip. Show start and finish dates for the remainder of the trip only, staple the two data copies together.

11. Remarks

List any remarks, warnings, or special conditions applicable to this permit.

<u>Blocks 77-78</u> (optional)

These blocks are provided to collect special management or research data if needed. Clearance to collect this information must be obtained through the Natural Resources Management Division, WASO. Leave blank if not used.

12. Have the applicant sign and date the permit.

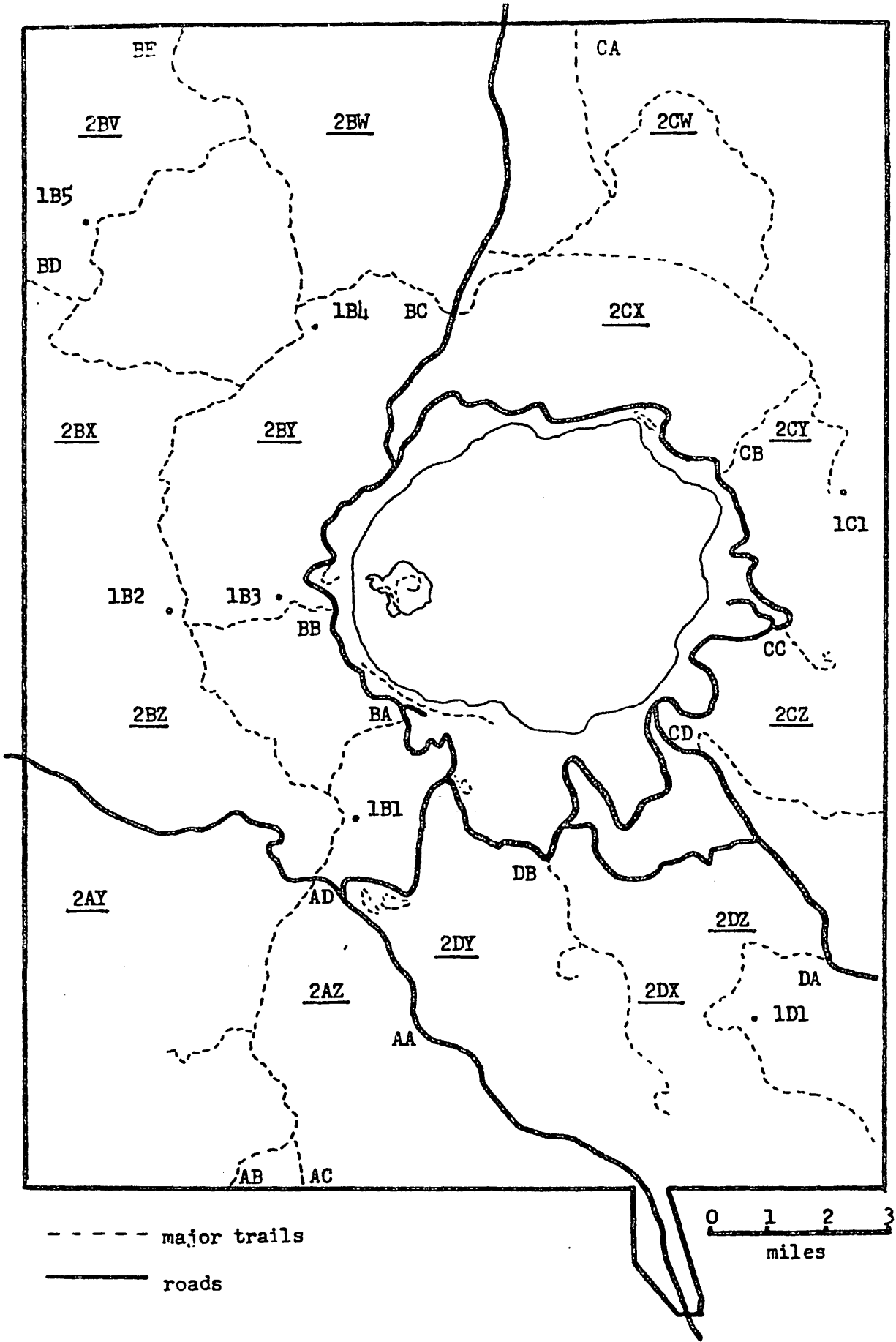13. The issuing officer should sign and date the permit.

   Blocks 79-80 (optional)

   These blocks may be used to identify the issuing point for this permit if needed. Leave blank if not used.

14. The applicant is instructed to fasten the tag to his/her pack, saddle, boat, or tent for field checking. Retain the white and pink copies of the permit and send them to the designated office for your park. The white copies should be forwarded at least once weekly to the Natural Resources Management Division, WASO, for data processing. The pink copy may be retained in the park.

   Important

   Data coding may be done either at the time of permit issuance or in batches at the end of the day, but the permit must be completely coded and reviewed for accuracy and completeness before forwarding to WASO.

BE

CA

2BV

2BW

2CW

1B5

BD

1B4   BC

2CX

2BX

2BY

2CY

CB

1C1

1B2   1B3

2CZ

BB

CC

2BZ

BA

CD

2AY

1B1

2DZ

AD

DB

2DY

DA

2AZ

2DX

AA

1D1

AB   AC

- - - - - major trails

——— roads

0   1   2   3

miles

BACKCOUNTRY PERMITS

Coding Information

Crater Lake National Park = 9320

Coding Type 3:

    Backcountry campsites = <u>1</u> plus <u>zone letter</u> plus <u>campsite number</u> (1B3)
    Backcountry zones = <u>2</u> plus <u>zone letter</u> plus <u>sub-zone letter</u> (2BY)
    Winter travel = <u>3</u> plus <u>zone letter</u> plus <u>sub-zone letter</u> (3BY)
    Trailheads = <u>zone letter</u> plus <u>assigned letter</u> (BC)

Coding Assignments:

Zone/Campsite/Trailhead	Code	Wilderness
Pumice Flat Zone	2AZ	yes
Union Peak Zone	2AY	yes
Cold Spring Trailhead	AA	
Stuart Falls Trailhead	AB	
PCT - South Trailhead	AC	
West Road Trailhead	AD	
Castle Creek Zone	2BZ	yes
Red Cone Zone	2BY	yes
Sphagnum Bog Zone	2BX	yes
Desert Cone Zone	2BW	yes
Northwest Zone	2BV	yes
Dutton Creek Camp	1B1	yes
Bybee Creek Camp	1B2	yes
Lightning Spring Camp	1B3	yes
Red Cone Spring Camp	1B4	yes
Oasis Spring Camp	1B5	yes
Dutton Creek Trailhead	BA	
Lightning Spring Trailhead	BB	
Red Cone Trailhead	BC	
Crater Spring Trailhead	BD	
Boundary Spring Trailhead	BE	
Mt. Scott Zone	2CZ	yes
Cascade Spring Zone	2CY	yes
Grouse Hill Zone	2CX	yes
Timber Crater Zone	2CW	yes

Coding Assignments Continued:

Zone/Campsite/ Trailhead	Code	Wilderness
Cascade Spring Camp	1C1	yes
PCT - North Trailhead	CA	
Roundtop Trailhead	CB	
Mt. Scott Trailhead	CC	
Cand Creek Trailhead	CD	
Maklaks Zone	2DZ	yes
Crater Peak Zone	2DY	yes
Sun Creek Zone	2DX	yes
Maklaks Spring Camp	1D1	yes
Maklaks Trailhead	DA	
Crater Peak Trailhead	DB	

Remarks Section: (blocks 77-78)
(Designed to gather data on the use of fires by backcountry visitors.)

Using campfire only	CF
Using campstove only	CS
Using both fire and stove	FS

Issuing Point: (blocks 79-80)

Headquarters	HQ
Exhibit Building	EB
North Entrance	NE
Annie Springs Entrance	AS
Pacific Crest Trail - North (self registration)	PN
Pacific Crest Trail - South (self registration)	PS
Issued in backcountry by patrol ranger	BC

Crater Lake National Park is beginning a new backcountry permit system to better assess the magnitude and impact of backcountry camping in the park. We need your cooperation in filling out the following information on the permit forms located in the box below. Use one permit for each group.

NAME-ADDRESS
   Fill in for group leader. Non-U.S. addresses, leave Zip Code boxes blank.
TO VISIT
   (Already filled in)
START-FINISH DATES
   Enter the month and day. eg, July 8 = 0708
                                                August 12 = 0812
ENTRY-EXIT POINTS
   Write in trailhead location code from map (two letters). Leave numbered boxes blank.
METHOD OF TRAVEL
   Enter "foot" or "horse". Leave numbered boxes blank.
NUMBER IN GROUP
   Fill in party size. Leave numbered boxes blank.
NUMBER OF STOCK
   Fill in number of stock, if any. Leave numbered boxes blank.
CAMPSITE NAME-ZONE
   Enter the NAME of a particular campsite (see map), if you plan to use one, and the number of nights you plan to stay at that site. If you are not using a campsite, enter the NUMBER of the color-coded zone you will be staying in and the number of nights you plan to stay in that zone. (Leave "zone-site" section blank.)
REMARKS
   Please indicate whether you plan to use "campfire", "camp-stove", or "both". Leave numbered boxes blank.

DATE and SIGN permit. DETACH carbons and bottom two copies and place them inside the collection box. Attach the top copy of the permit to your pack.

Please read and follow the posted backcountry camping regulations. Copies are available for you to take if you wish. Please put suggestions or comments on the self registration system or backcountry permits in the collection box.

For further information or in case of emergency, contact Headquarters, Crater Lake National Park, 503-594-2211.

BACKCOUNTRY USE PERMIT

The visitor must have this permit during the visit.

When signed, this single-visit permit authorizes.

NAME Jane Doe

ADDRESS 123 W. 6th St.

CITY Mytown STATE OR ZIP

9	8	7	6	5
1	2	3	4	5

To visit CRATER LAKE

9	3	2	0
6	7	8	9

Give best estimate of start and finish dates

FROM MO/DAY
0	7	2	0
10	11	12	13

THROUGH MO/DAY
0	7	2	6
14	15	16	17

Location of entry AC
18	19	20

Location of exit CA
21	22	23

Primary method of travel foot
24	25

Number of people in group 3
26	27

Number of pack or saddle stock none
28	29

Number of watercraft or other craft
30	31

CAMPSITE NAME	ZONE– SITE	NIGHTS
2 AZ		1
Bybee Creek		1
2 BY		2
2 CW		2

REMARKS
campstove | 77 | 78 |

DATE (VISITOR'S SIGNATURE)
7-20-77 Jane Doe

DATE (ISSUING OFFICER'S SIGNATURE)
| 79 | 80 |

FASTEN THIS TAG TO YOUR PACK, SADDLE, BOAT OR TENT

Results

To date one computer printout has been received from WASO, but no data are yet available because the printout covered a period prior to the time we began issuing 10-404 permits. More computer reports should be forthcoming.

Cursory examination of permits reveals almost all hikers on the Pacific Crest Trail travel from south to north through the park, and that the Lightning Springs area receives the heaviest concentration of overnight use. Employees at the Exhibit Building and Headquarters feel many of the users at Lightning Springs (and increasingly at Dutton Creek) have no car, arrive late in the day, and want a campsite close to the road and water. Thus Lightning Springs (and Dutton Creek) is a logical choice since the park has no "walk-in" campground as many other parks do.

Permit coding errors by employees were relatively frequent at the beginning of the summer, but lessened by mid- to late-summer. Some users of the self-registration stations filled out their permits exactly according to instructions. It was obvious that others did not bother to read any instructions and filled out permits improperly or incompletely. Simplification of instructions for self-registration may help.

Our backcountry patrols did not find an overwhelming number of violators, but from the number of fresh, illegal campfire rings we destroyed, it is obvious that many users are not following backcountry regulations. In general, most users knew they were required to have permits and had them. It was our feeling, however, that some users may not have had all regulations explained thoroughly, and that even though we prepared handouts with all the regulations on tham, they were not given out to each user.

Recommendations

We feel that all employees who will be issuing backcountry permits should be schooled in the training week at the beginning of the season by working through several examples and thoroughly discussing backcountry regulations so everyone understands them. We should have a rubber stamp made which lists the backcountry regulations and fits on the blank back of the users' copy of the permit. Each permit should be stamped and the user required to read and sign that he/she understands and will abide by the regulations. There would then be little question in the field as to whether a violator had been misinformed by another employee. Also, each major trailhead should have a small bulletin board with the trail name, backcountry regulations, a park map, etc., posted.

Our backcountry patrol schedule should concentrate on illegal fire ring areas (Lightning Springs Trail, Dutton Creek) at times when out-of-bounds campers are there. We recommend more early and late (or overnight) patrols, especially on weekends in order to meet campers when they are using the area.

BACKCOUNTRY PERMITS
SUPPLEMENTAL INFORMATION

Point of Issue	6-12-77- 6-30-77	7-1-77- 7-31-77	8-1-77- 8-31-77	9-1-77- 9-16-77	Total
Headquarters	29	100	73	20	222
Exhibit Building	10	59	63	13	145
Annie Spring Entrance	0	7	3	2	12
North Entrance	0	0	0	0	0
PCT - North (Self-reg)	*	4	2	2	8
PCT - South (Self-reg)	*	34	26	3	63
Packcountry	0	8	1	1	10
	39	212	168	41	560

Fire Type

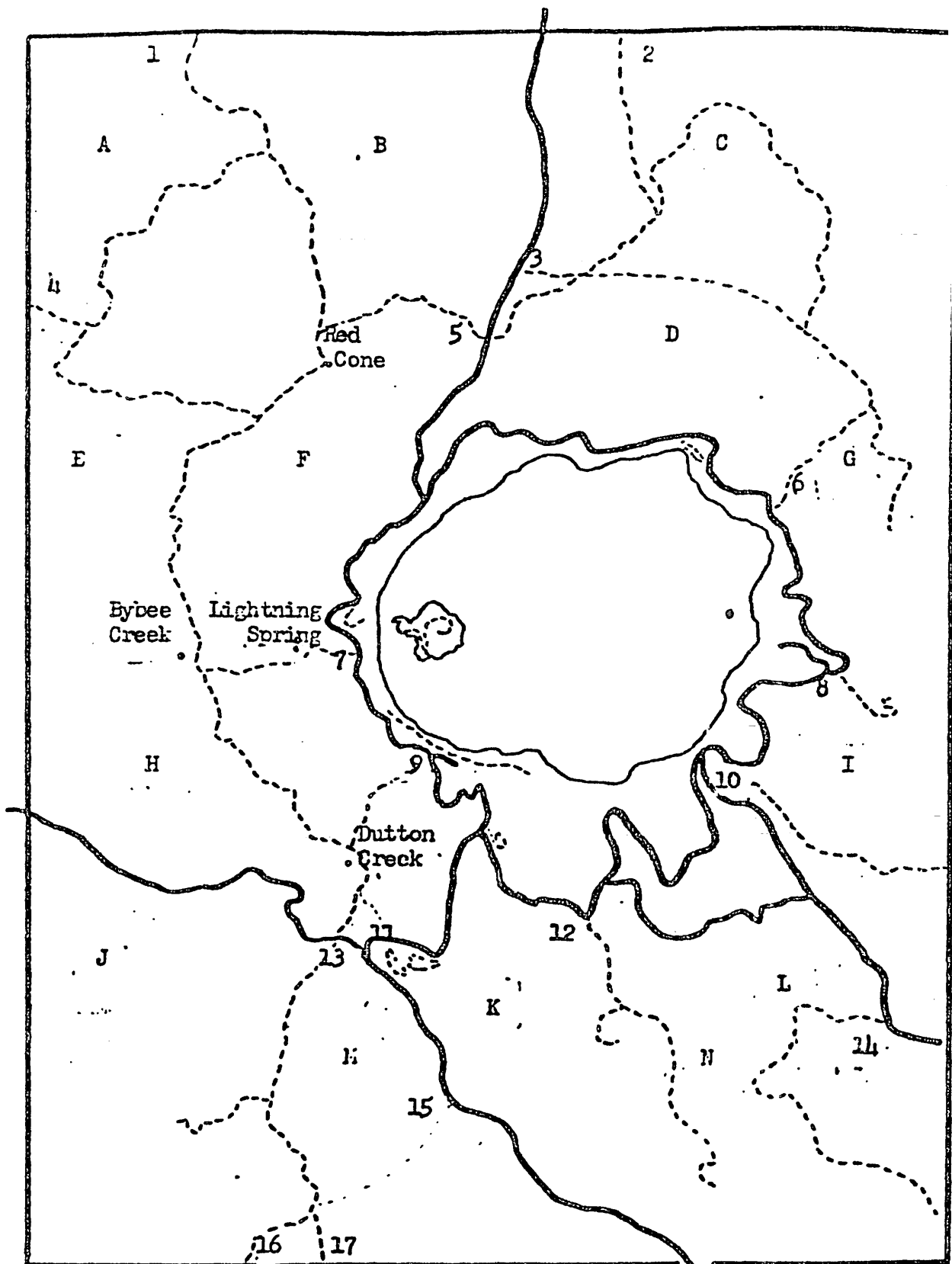|					
Campfire	10	75	59	16	160
Campstove	9	65	52	19	145
Fire and Stove	7	28	18	7	60
Neither	0	28	6	0	19

* Self-registration stations not in place until July.

Self-registration stations seemed to work well. Several
Pacific Crest Trail hikers recommended putting a log or message
board up for their use. Next year a spiral-bound notebook should
be marked "LOG" and placed inside the registration box for hikers'
comments and messages. Also, instructions for self-registration
(only) should be simplified. This could be done by changing to
a simple code for users to enter on their permits and the few
permits we get marked in this way from the PCT registration
boxes would be recoded by resource management personnel. We had
to recode these permits this year, and feel that by making the
map and instructions look simpler more hikers would take the
time to register. (see sample map with new codes)

In general, the zone-campsite-trailhead coding system worked
well. Minor revisions for next year would include:

    1) Delete Oasis Spring, Cascade Spring, and Maklaks Spring
       as designated campsites. (See Fire Ring Eradication
       Report for further comments on this subject.)

    2) Add a campsite code for Mazama Campground. Many hikers
       from the PCT spend the night there.

    3) Add a trailhead code for the Mazama Cutoff trail.

Heavy use at Lightning Springs and Dutton Creek will probably
continue unless the park extablishes a walk-in loop at Mazama
Campground or the Rim Village Picnic Area. The best alternative
to the numerous illegal fire rings and out-of-bounds campers
would be to establish several designated legal camping sites with
fire rings and limit camping in the Lightning Springs and Dutton
Creek areas to these sites for campers who want fires. Users with
stoves or no fires would not be affected and could still use any
area considered legal within the backcountry regulations.

1

2

A

B

C

4

3

Red
Cone

5

D

E

F

G

6

Bybee
Creek

Lightning
Spring

7

8

5

H

9

I

10

Dutton
Creek

11

12

13

J

K

L

14

N

M

15

16

17

- - - - - major trails

————— roads

Capital Letters — Zones
Numerals — Trailheads

Simplified Map for Backcountry Self-registration Stations

0   1   2   3

miles