

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE BERKELEY, CALIFORNIA SOIL CONSERVATION SERVICE

TN - Recreation 4

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RATIOS AND DISTANCES BETWEEN LAND, PEOPLE AND FACILITIES IN RECREATION AREAS

This material was contained in Recreation Memorandum-3, Supplement-3 - Ratios and Distances Between Land, People, and Facilities in Recreation Areas, and was routed to the Area Conservationists in Advisory Rec. Cal-15, May 20, 1964 for review and comment. It is supplied to you as a rough guide in planning recreational facilities. It is not intended to supplant local Department of Health regulations which should always be used if they exist.

Where some items have been questioned in this guide or additional notes have been added they have been enclosed in parenthesis.

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RATIOS AND DISTANCES BETWEEN PEOPLE LAND, AND FACILITIES ON RECREATION AREAS

The information included here is taken from a variety of sources competent in planning recreation developments. Some will be generally useful in planning private or public recreation areas and have wide applicability; other information may involve state or local laws and regulations and, therefore, may require change for use in a particular area. Hence, this material should be used as a guide in preparing similar information for use by SCS field people in each state.

In using data of this kind, it is well to remember that the usual procedure in planning the size of recreation facilities is to design them for the average week-end load during the heavy-use season; it is impractical to design for peak-load week ends.

BOATING

- Water area for fishing, anchored row boats - 4-7 boats per acre.
- Water area for fishing, trolling boats - 2-4 boats per acre.
- Water area for power and sail boats - 3* acres per boat.
- Water area for water skiing - 5* acres per boat.

*These figures exclude the 300' band around the shore zoned against these uses except at access points.

Boat launching ramps - 1 per 150-200 acres of water.
Boating service facility (docks, gasoline, etc.) - 1 per 300 boats.

CAMP SITES

Area Required

Minimum: 16' x 16' or 12' x 18' levelled tent space.
11' x 11' table and bench space.
9' x 9' fireplace space.
3000 square feet per unit* or 1/10 per acre (55' x 55')
in developed area.
50 foot road or water frontage.

"Privacy size: 4000-8000 sq. ft. per unit* or 5-11 per acre.
60-100 foot road or water frontage.

Buffer zones: 100 feet to a beach (Min.).
300 feet to a day-use sports area (Min.).

Trailers: Require double the vehicle parking space of an
auto alone, more where "drive through" lanes
are provided between roads.
20% of camp sites normally designed for trailer
use.

*Unit is tent space, vehicle parking space, and use area for
cooking, eating, wood storage, trash disposal, etc.

Distances

Camp site to drinking water - 300' maximum.
Camp site to restroom - 300' maximum.
Camp site to restroom - 100' minimum.
Camp site to shower - 300' maximum. ?(every 2nd restroom)
Camp site center to access road - 50' minimum.

People & Facilities

Camp sites will average 4 persons each.
Camp sites need 1 toilet* per 12-20 people (men and women, total) or 1
toilet per 3-5 camp sites.
Camp sites need 1 lavatory per toilet.
Camp sites need 1 shower per 12-20 people or 3-5 camp sites.
Trailer parks need 1 shower per 20-32 people.
Camp sites will need 1 picnic table & benches per site.
Camp sites will need 1 fireplace or grill per site.
Camp sites will need 1 trash can per 1 or 2 sites.

*In multi-unit men's restrooms, up to 40% of the requirement
for toilets may be provided by urinals.

PARKING AREAS

Parking spaces - 25-40 per 100 people.
Area per parking space (including travel lanes) - 300 sq. ft. (16' x 30')
Area per parking space with trailer - 500 sq. ft.

Dimension of auto parking space - 9' to 12' x 18' to 20'. ? (10' x 24')
Dimension of trailer parking space - 10' to 12' x 40' to 45', or 18' x 28'.
Distance to picnic units (family) (maximum) - 600 ft.
Distance to picnic units (group) (maximum) - 400 ft.
Distance to beach or bath house (maximum) - 800 ft.

PICNICKING AREAS

Average number of people per picnic table - 5.
Number of picnic tables per fireplace or grill - 1-3.
Number of picnic tables per 2 car parking spaces at beaches - 1.
Number of picnic tables per refuse can - 2-3.
Number of picnic tables per acre (family units) - 8-10. ? (20-40)
Number of picnic tables per acre (groups) - 16.
Number of picnic tables per 100 people/day - 10*.

*Based on each table being used by two parties per day.

RESTROOMS

Number of swimmers per lavatory and toilet* - 50-80.
Number of campers per toilet - 12-20.
Number of picnickers per toilet - 50-150.
Number of swimmers and campers per shower - 12-20.
Vault privy capacity - 2-3 cu. ft. per person per season.

*In multi-unit men's restrooms, up to 40% of the requirement for toilets may be provided by urinals.

SWIMMING BEACHES

Area of swimmable water per swimmer - 100-200 sq. ft.
Area of beach per swimmer - 50-100 sq. ft.
Bath house capacity - 5% of design load of beach (minimum).
Swimmers in water - 15%-30%; on beach - 70%-85%.
Distance, beach to bath house - 800' maximum.
Distance, beach to drinking water - 300' maximum.
Distance, beach to restrooms - 100'-300'.
Distance, bath house to parking area - 800' maximum.
Number of swimmers per shower - 12-20.

WATER SUPPLIES

Drinking Water

Fountains, faucets, or hydrants:	1 per 150 people on day-use areas
Fountains, faucets, or hydrants:	1 per 5-10 camp sites.
Use per person per day:	5 gallons.
Distance from activity site:	150'-300'.
Rate of fountain flow:	1 gallon/minute.

Restrooms & Bath Houses

Flush toilets - water/person/day: 5 gallons. (25 gal/cd)
Showers - water/person /day: 5 gallons. (40 gal/cd)

Total Water Consumption

Personal, sanitary, miscellaneous uses: 30 gallon/day/person. (65 gal/
person/day)

(Does not include automatic laundries.)