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NEW APPROACHES TO RURAL RECREATION PLANNING

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Outdoor recreation concepts, programs, and planning have developed at a fast rate during the last decade. However, most criteria, standards, and guidelines for recreation planning have been developed for urban areas and have limited relevance to planning in rural areas. It has become evident that rural towns^{1/} have different needs, requirements, and opportunities, and require distinctly different standards and concepts than urban areas. The goals of rural people, the types of recreation needed and resources available, the financial situation, the leadership, and the land suitabilities all conspire against use of urban standards and indicate the need for procedures and standards designed for rural areas (2).

In response to this problem, a research program was developed to investigate the unique or special requirements of recreation planning for rural communities. The program consisted of pilot planning projects conducted at the request of 14 rural towns in Massachusetts, New Hampshire, and Vermont.^{2/} In the course of this program, conducted from 1965 to 1975, new concepts and procedures for recreation planning for rural towns were developed and tested, and a distinctly rural approach to outdoor recreation planning emerged. This paper is a report of the findings of this research program. The new approach is not presented as proven principles and final guidelines, but as hypotheses which have been successful in pilot projects, but should be further tested in other rural areas.

The new concepts and procedures especially applicable to rural areas include: (1) a method for determination of future recreational needs of rural people, (2) proposed standards for public outdoor recreation facilities in rural towns, (3) a checklist of outdoor recreation activities for inventorying, (4) a classification of types of parks for analysis of the regional supply, (5) analysis of rural people's motives for outdoor recreation as a basis for understanding their needs, (6) the key role of

^{1/} A town is a New England unit of government of 36 square miles, more or less.

^{2/} The towns were Deering, Henniker, and Peterborough, New Hampshire; Stockbridge, Massachusetts; and South Hero, Chittenden, Colchester, South Burlington, Shelburne, Underhill, Shrewsbury, Essex, Ferrisburg, and West Fairlee, Vermont. Populations varied from 337 to 11,000.

the recreation plan in a comprehensive rural town plan, and (7) revision of the concepts of costs as a limiting factor in rural recreation planning.

Estimating Demand for Public Outdoor Recreation Land

An indispensable first step in recreation planning is an estimation of demand or future needs. Methods of estimating demand have been developed and used for urban areas where the data base is considerable. Demand analysis, trend projections, and administrative standards have all been widely and successfully used in recreation planning for urban areas (1). These methods were found to be unsatisfactory or nonrelevant for predicting future demand and/or use in rural areas for a variety of reasons.

Demand analysis is based on the model of a free market resource allocation system and is applicable wherever this system is functioning. Demand, in the economic sense (i.e., a schedule of quantities of goods which will be purchased during a period of time in the future at various prices in a relatively free market), assumes that the goods (or services) are mass produced (or exist in appreciable quantity), that the various units are identical, and that with growth in population and increasing per capita income, demand is insatiable (within certain limits). While this type of analysis is indispensable in the private sector of our economy where the assumptions are valid, and useful in urban areas where quantities and numbers are considerable, it has little applicability in planning rural recreation land use in the public sector, as the assumed prerequisite conditions do not exist or exist in too small quantities for mathematical analysis (3).

Trend projections consist of determining the rate of increase or decrease of a trend in use or consumption during recent years, taking cognizance of the known factors which may affect this rate which can be quantified, and then making a projection into the future by extending the line in the indicated direction and consistent with the rate of past trends with adjustments made in accord with the qualifying factors. This method, like demand analysis, is useful in urban regions. It is valid for short term prediction in a specific situation in which it may be assumed that tastes and other relevant factors remain constant or change only slightly. Trend projections are not adequate for rural recreational planning as they do not provide for a change in habits or tastes which may produce a change in the direction or rate of change in recreational land use, or for new recreational activities. Projections tend to be self-fulfilling predictions. When an increased activity is predicted and facilities are provided, it usually attracts more use; thus, fulfilling the prediction of increased use. When such predictions are made without relation to other land uses, they tend to lead to over-building the facility being projected. In rural areas, recreational interests and activities may be in the process of accelerated change with new interests appearing during the planning process. This makes past trend projections inaccurate as a useful indicator of future needs.

Administrative standards consist of tables drawn from experience which indicate a recommended quantity of supply of various facilities per 1,000 population (6). These guides are useful in urban recreational planning of intensive use areas as they are based on urban experience. They are not relevant for many rural recreational activities as the data basis for the recommended supply levels is lacking.

The new planning method consists of determining the recreational potential of the rural resource base and then discovering in the course of plan development (a period of several months) the possibilities for developing various potentials. This method is essentially a study and education program in recreation potentials and possibilities. It provides a chance to investigate costs and sources of funds and a chance to learn attitudes of people with reference to new, proposed, recreational activities. This method led to including in plans those recreational activities which could not be justified on the basis of demand analysis, trend projection, or administrative standards. This method does not definitively determine future needs per se but rather is a way to let present desires surface and make rural residents aware of alternatives. In the pilot planning projects in several towns, the subject of cross-country skiing was raised. Demand analysis would not show a demand for this kind of activity as it was new and nearly unknown in the area. Trend analysis could not project a trend as no base existed. No administrative standards were found. However, through the public planning process of investigation and discussion a public goal was developed to provide for the possibility of providing cross-country ski trails for public use. The plan further provided that these trails would be located, the rights of passage negotiated, and signs and clearing provided by volunteer cross-country skiers. Using this approach, implementation would not take place until the demand developed. The result has been that as demand developed, citizens implemented their new discovered goal of cross-country skiing.

Standards for Public Recreation Land for Rural Towns

The standards developed by various planning commissions for recommended minimum acreage of various open space recreation uses per 1,000 population are useful guidelines and points of departure for planning urban areas. Many of these standards are not applicable in rural towns and there is an absence of standards for various types of recreational land uses relevant to rural people. Hence, it was necessary to develop additional standards and propose, promote, and test them as guidelines for rural planning. The proposed standards developed include the following:

- (1) Towns bordering a lake—one multiple purpose lake access per town or one per 4 miles of lakeshore frontage.
- (2) Cross-country ski trails—one to three loops of 5, 10, and 15 kilometers per town.
- (3) Walking trails—4 to 8 miles per town, depending on topography.
- (4) Hilltop scenic lookouts—one or two per town, depending on topography.

(5) Scenic turnouts—one to three per town, depending upon scenic ratings (12).

(6) Natural areas with public access—three to six per town.

(7) Canoe access to canoeable waters—every 2 miles on canoeable waters.

These standards are intended to supplement the standards published by the Bureau of Outdoor Recreation and Natural Recreation Association, the Baltimore Regional Planning Commission, etc. Like other standards, they are not requirements, but rather a basis for discussions of needs and suitabilities for recreation facilities. These standards have been useful as a basis for educating town officials and citizens on the possibilities of recreational uses, the needs of the town, and the opportunities that existed. Use of these proposed standards invariably led to specific planning proposals in the pilot projects.

Definition of Public Outdoor Recreational Activities

In rural town planning, a comprehensive check list of potential public outdoor recreational activities and land uses is needed. In an effort to supply this need, the list shown in Table 1 was compiled. It is not complete nor comprehensive as new recreational activities are frequently discovered or invented. However, it provides a basis for raising questions concerning a great many types of activities which, otherwise, are not brought into consideration.

Classification of Types of Outdoor Recreation Parks

In analyzing the numbers and types of recreation parks found in rural regions, it was discovered that development of an objective and comprehensive system for defining and listing outdoor recreation areas is necessary (7, 13). To solve this problem for rural land use planning, three classification systems based on (a) size, (b) area served, or (c) a combination of visit duration, principal activity, and attractions are proposed.

Classification of public outdoor recreation units by magnitude is an elementary first step. It is useful in making gross comparisons of available acreage among states or regions. Table 2 shows the wide range of magnitudes required to classify all public outdoor recreation lands in North America.

The area served by a recreational facility is another useful basis for classification. It is an indispensable concept for planning an integrated multilevel system of public parks. Table 3 shows a set of proposed categories for classifying recreation areas or parks according to distance.

For detailed analysis and planning of facilities, a three-part classification system is useful. Table 4 provides a three-digit description of recreation facilities which indicates the average duration of visits, the

Table 1
Classification of Outdoor Recreation Activities

Water Based Recreation

A. Nature Contact

- | | |
|-------------------------|---------------------------|
| 1. Swimming | 8. Water and ice sailing |
| 2. Canoeing--flat water | 9. Clamming |
| 3. Rowboating | 10. Ice boating |
| 4. Fishing | 11. Canoeing--white water |
| 5. Sailing | 12. Kayaking |
| 6. Surfing | 13. Sun bathing |
| 7. Scuba diving | |

B. Motor Assisted

- | | |
|-------------------|-----------------|
| 14. Motor boating | 16. Cruising |
| 15. Water skiing | 17. Kite skiing |

Playfield Recreation

A. Team Games

- | | |
|--------------|------------------|
| 18. Softball | 22. Rugby |
| 19. Baseball | 23. Lawn bowling |
| 20. Football | 24. Hockey |
| 21. Soccer | 25. Volleyball |

B. Individual Performance

- | | |
|---------------------|----------------|
| 26. Golf | 30. Track |
| 27. Archery | 31. Horseshoes |
| 28. Target practice | 32. Trampoline |
| 29. Tennis | |

Pedestrian Recreation

A. Summer

- 33. Walking
- 34. Hiking
- 35. Rock climbing
- 36. Spelunking
- 37. Bushwacking
- 38. Jogging

B. Winter

- 39. Cross-country skiing
- 40. Snowshoeing
- 41. Downhill skiing
- 42. Ice climbing
- 43. Snurfing

Motor (and motor assisted) Sports

- | | |
|------------------|--------------------------|
| 44. Auto racing | 51. Snowmobiling |
| 45. Dune driving | 52. Motorcycle riding |
| 46. Trail biking | 53. Motorcycle racing |
| 47. Dragging | 54. Sight-seeing |
| 48. Rally | 55. Driving for pleasure |
| 49. Flying | 56. Bus tour |
| 50. Gliding | |
-

Table 1 (concluded)

| <u>Nature Study</u> | |
|---------------------|----------------------------|
| 50. Bird watching | 60. Species identification |
| 51. Bird banding | 61. Nature photography |
| 52. Collecting | 62. Zoo visit |

| <u>Spectating* (Watching and Listening)</u> | |
|---|--|
| 63. Exhibits and exhibitions | |
| 64. Rodeo | |
| 65. Games--football, baseball, hockey, etc. | |
| 66. Races--horses, greyhounds | |
| 67. Concerts | |
| 68. Shows and performances | |
| 69. Lectures | |
| 70. Historical site visit | |

| <u>Outdoor Hobbies</u> | |
|---------------------------|---------------------|
| 71. Gardening | 74. Sketching, etc. |
| 72. Kite flying | 75. Photography |
| 73. Model airplane flying | |

| <u>Sports with Animals</u> | |
|-------------------------------|-----------------------|
| 76. Horseback and pony riding | 79. Hunting with dogs |
| 77. Falconry | 80. Hunting |
| 78. Dog team racing | 81. Showing dogs |

| <u>Outdoor Living</u> | |
|-------------------------|---------------------------------|
| 82. Picnicking | 85. Playground or park visiting |
| 83. Tenting and camping | 86. Sitting |
| 84. Tot lot | 87. Vacation home living |

| <u>Bicycling</u> | |
|------------------|--|
| 88. Hosteling | |
| 89. Touring | |
| 90. Racing | |

| <u>Miscellaneous</u> | |
|----------------------|--|
| 91. Hang gliding | |

* Spectator sports and activities are included to make the list useful in planning facilities for parks.

Table 2
Classification of Public Outdoor Recreation Land Units by Magnitude

| Magnitude | Acres | | Type |
|-----------|------------------------|------------|------------------|
| 1 | 0- | 1 | Minipark |
| 2 | 1- | 10 | Neighborhood |
| 3 | 10- | 100 | Municipal |
| 4 | 100- | 1,000 | County |
| 5 | 1,000- | 10,000 | State |
| 6 | 10,000- | 100,000 | Regional |
| 7 | 100,000- | 1,000,000 | National |
| 8 | 1,000,000- | 10,000,000 | Continental |
| 9 | 10,000,000-100,000,000 | | Resource Reserve |
| 10 | Over 100,000,000 | | Undeveloped area |

Table 3
Classification of Outdoor Recreation Parks by Area Served

| Class number | Area served | | Type | |
|--------------|-------------|-----------|-------------------------|-------------|
| | In time | <u>or</u> | | In distance |
| 1 | 5 minutes | | 1 block | Minipark |
| 2 | 20 minutes | | 10 miles | Municipal |
| 3 | 1 hour | | 40 miles | County |
| 4 | 2 hours | | 100 miles | State |
| 5 | 4 hours | | 200 miles | State |
| 6 | 1 day | | 400 miles | Regional |
| 7 | 2 days | | 800 miles | National |
| 8 | 3 days | | 1,200 miles | National |
| 9 | 4 days | | 1,600 miles | National |
| 10 | 5 days | | 2,000 miles and over | Continental |

level of facilities provided, and the principal characteristic activity or activities.

Table 4.
Three-Digit Classification of Public Outdoor Recreational Facilities

| Average duration of visit | A. Facility Characteristics | |
|---------------------------|--|---|
| | Facilities level | Principal activities |
| 1. Day use | 1. Primitive - No sanitary facilities | 1. Swimming 2. Canoeing |
| 2. Overnight | 2. Standard - Sanitary facilities Campsites | 3. Hiking 4. Climbing 5. Camping |
| 3. Week or more | 3. Luxurious - Hot water Restaurants Electric outlets Lifeguards Guides | 6. Picnicking 7. Fishing 8. Nature study 9. Wilderness experience 10. Seashore 11. Walking 12. Multiple |

B. Example of Three-Digit Facility Rating

| Sites | Average duration of visit | Facilities level | Principal activities | Three-digit class |
|---------------------------------|---------------------------|------------------|--------------------------|-------------------|
| Sandbar State Park—Vt. | Day use | Standard | Picnicking | 1-2- 6 |
| Camels Hump Park—Vt. | Day use | Primitive | Hiking | 1-1- 3 |
| Cape Cod National Seashore | Week | Luxurious | Seashore fun | 3-3-12 |
| Red Rocks—South Burlington, Vt. | Day use | Primitive | Walking | 1-1-11 |
| Algonquin Province Park | Week | Primitive | Canoeing and camping | 3-(1-2)-(5-2) |
| Everglades National Park | Week | Luxurious | Camping and nature study | 3-3-(5-8) |
| Mt. Philo State Park—Vt. | Day use | Standard | Picnicking | 1-2-6 |

Motives for Outdoor Recreation

To plan outdoor recreation for rural people, it is useful to understand the motives for pursuit of outdoor recreation (4, 5). An analysis of these motives has been developed which is useful in assisting the planner in understanding the categories of outdoor activities that should be considered. Research on this subject indicates that six categories of motives cover the principal reasons for outdoor recreation activities (9, 10). They are: (1) exercise, (2) escape from daily routine, (3) intimate contact with nature, (4) the sensation of speed, (5) response to a challenge, and (6) social and psychological drives. While many recreators have multiple motives, some motives are more important than others in projecting future land uses. The most significant and determining reasons for much outdoor recreation can be reduced to two motives: (1) a push—to get away from the routine of daily life, and a pull—to associate more intimately with the natural environment. The six-motive list may be useful in conducting attitude surveys as a step in determining future needs (8). Interviews based on motivational categories instead of specific types of activities will lead to planning activities which will be in demand in the future when people are introduced to them, even though few people declare a need for them today (11).

There are several areas in which a supply might create a demand. A survey of attitudes toward outdoor recreation might show, for instance, that a significant number are interested in intimate-contact-with-nature activities while few might mention cross-country skiing. On the basis of this information, cross-country skiing facilities might be planned plus a program to introduce people to it. Identification and quantifying the intimate-contact motive might lead to planning more walk-in or tents-only campgrounds in state and national parks. The same rationale is true for other motives and other activities. The use of these concepts may permit us to better estimate future demand (or need) for various types of outdoor land use experiences and therefore, do a better job matching future facilities with future needs (4).

The Role of the Recreation Plan in a Comprehensive Rural Town Plan

In the course of the pilot projects in comprehensive rural town planning, it was discovered that the recreational plan chapter is the most important single chapter in a comprehensive town plan from the standpoint of obtaining adoption of the plan by the public. Unlike other chapters, the recreation chapter should have something attractive for every individual, from scenic turnouts for the auto bound to access to hiking, skiing, or white water canoeing for the more active population. A good recreation plan is a major component of a quality environment and as such provides an important amenity indispensable for attracting light industry and tourism as well as providing enjoyment for citizens.

The Cost of Public Outdoor Recreation Facilities

An obstacle in planning outdoor recreation facilities at the town level is the commonly held belief that they cost money which is unavailable and unobtainable. In the 14 experimental planning projects it was discovered that a great variety of outdoor recreation facilities can be provided at little local cost or at acceptable local costs to the citizens. In South Burlington, a municipality previously land-locked, was able to obtain a 100-acre recreational park on Lake Champlain at no additional cost to the taxpayer for the acquisition. The cost was absorbed by a Bureau of Outdoor Recreation grant plus state assistance, plus an arrangement of sale of land to a power company for a substation to provide the required local portion of the cost. In the Town of Ferrisburg, state ownership of land was discovered on a body of water and it was possible to negotiate local recreational access at no cost to the local taxpayer. In Shelburne, a network of cross-country ski trails was laid out by volunteers. Similar examples occurred in other towns.

CONCLUSION

Several conclusions can be drawn from 14 experimental projects in rural recreational planning that are of interest to resource economists and land use planners. Traditional methods of demand analysis need to be modified to provide for newly developing recreational land uses and to accommodate land suitabilities. Considerable more investigation is needed to determine acceptable and recommended recreation standards for rural areas. Even basic definitions of recreation activities, and recreation parks need review to arrive at more generally accepted standard nomenclature to permit accurate inventorying and interregional comparisons of supply. Analysis of motives for outdoor recreation and attendant public goals is an area of analysis that will help to sharpen the tools for determining future needs. The role of a recreation plan in gaining acceptance of a town plan suggests that greater time and emphasis should be given to this chapter in a rural comprehensive plan. The concept of costs of provision of outdoor recreation facilities should be recast in terms of sources of funds, opportunity costs, and new local taxes required. In sum recreation should be upgraded to the status of a major land use in rural "comprehensive" planning.

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