

A FINANCIAL ANALYSIS OF
BIG MEADOW CREEK RECREATION AREA
MANAGEMENT ALTERNATIVES

A Thesis

Presented in Partial Fulfillment of the Requirement for the
DEGREE OF MASTER OF SCIENCE
Major in Forest Recreation

in the
UNIVERSITY OF IDAHO GRADUATE SCHOOL
by

THOMAS WOOD MOORE

April, 1975

This thesis of Thomas Wood Moore for the Master of Science degree with major in Forest Recreation and titled "A Financial Analysis of Big Meadow Creek Recreation Area" was received in rough draft form by each committee member as indicated by the signatures and dates given below and permission was granted to prepare the final copy incorporating suggestions of the committee; permission was also given to schedule the final examination upon submission of two final copies to the Graduate School Office:

Major Professor	<u>Floyd L. Newby</u>	Date	<u>March 28, 1975</u>
Committee Members	<u>Bernard C. Banning</u>	Date	<u>March 28, 1975</u>
	<u>Ed Bruce Hefley</u>	Date	<u>March 28, 1975</u>
	<u>Eric J. Schuster</u>	Date	<u>March 28, 1975</u>

REVIEW OF FINAL DRAFT:

College Dean	<u>John W. Churchill</u>	Date	<u>Mar. 31, 1975</u>
--------------	--------------------------	------	----------------------

FINAL EXAMINATION: By majority vote of the candidate's Committee at the final examination held on date of April 8, 1975 Committee approval and acceptance was granted.

Major Professor	<u>Floyd L. Newby</u>	Date	<u>April 8, 1975</u>
-----------------	-----------------------	------	----------------------

GRADUATE COUNCIL FINAL APPROVAL AND ACCEPTANCE:

Graduate School Dean	<u>Ed H. Lahr</u>	Date	<u>4-10-75</u>
----------------------	-------------------	------	----------------

ABSTRACT

The Big Meadow Creek Recreation Area is a 200 acre developed rural picnic area. Located in a partially forested area typical of the transition zone between mountainous forested regions and the "Palouse" hill country of Idaho, it affords excellent recreational esthetic attractiveness at the local level.

The acreage is a scarce dual-purpose resource exhibiting educational as well as recreational benefits. The problem being faced is what should be done to or with this deteriorating site to make it a more economically viable enterprise. Special consideration is needed in the solution as regards the University's efforts in teaching, research, and public service, all of which are conducted at this site. Alternative opportunities in either education and/or outdoor recreation require that choices be made. Management decisions based upon rather explicit analysis of costs and benefits are likely to result in better choices and therefore a benefit-cost analysis of management alternatives was conducted.

Management techniques were researched in the literature and subjectively evaluated against criteria of costs and benefits, effectiveness, flexibility, and practicality. Alternative management systems were subsequently constructed incorporating appropriate techniques. Preselected criteria, determined as a result of discussions between analyst and decision-maker, were used as measures of effectiveness to conduct the analysis. Basic alternatives constructed related to

the status quo, further development, elimination, sale, lease, and donation of the recreation area. Preselected "measures of effectiveness" were market valued costs and benefits, non-market valued costs and benefits, opportunity costs, University liability, site use levels, hazard insurance considerations, and probable profitability.

Future use is predicated upon a "judgement" estimating process. A modified effective population was projected through the time horizon based upon census data and county planning estimates. Bureau of Outdoor Recreation (1972 National Recreation Survey) participation rates and average days per participant, modified by research findings to suit the local area, were utilized to project use requirements in activity-days. Use requirements were evenly distributed among all existing facilities and areas. Corrections were entered for incidental and intangible factors.

Costs considered were: (a) development costs to include campgrounds, a swim facility, trails, and playground equipment; (b) annual operating expenses to include wages to labor, insurance, transportation, advertising, maintenance, and consumable supplies; (c) non-market valued costs including increased fire hazards and additional police requirements; (d) opportunity costs; and (e) the cost of land. Cost information was obtained from composite reports of prior costs, current retail and market sales values, expertise of knowledgeable persons either by direct interview or indirectly through other sources, prior planning estimates for other facilities, and subjective estimates. All cost information was adjusted to current dollars using wholesale price indices.

Benefits considered were: (a) revenues to include campground

fees, swim fees, group use fees, and lease returns; (b) non-market valued benefits including educational values and public relations; and (c) land values and appreciation in land values.

Market valued analysis was conducted utilizing INVEST III, a computer investment analysis program which uses standard discounting formulas to compute benefit-cost ratios, present networths and internal rates of return for four separate interest levels.

INTRODUCTION

This study is an analysis of management alternatives applicable to Big Meadow Creek Recreation Area. The area is situated approximately 3.6 road miles north and west of Troy, Idaho, on University of Idaho School Forest land. Figures 1 and 2 are site and location maps, provided to orient the reader to the study area and its location relative to surrounding communities.

The need for analysis of management alternatives stems largely from conflict in the dual purpose the area serves. It is utilized for educational purposes, as part of the College of Forestry, Wildlife and Range Sciences' School Forest. It has also been developed into a public outdoor recreation area.

Opportunities for either education or outdoor recreation (or both) require that choices be made. Better choices are likely to result from management decisions based upon an analysis of area utilization costs and benefits. Analysis per se may provide a tool or way of thinking for assisting, aiding or facilitating more rational decisions about either education or recreational investments. Consequently, a better allocation and utilization of the land resource should result.¹

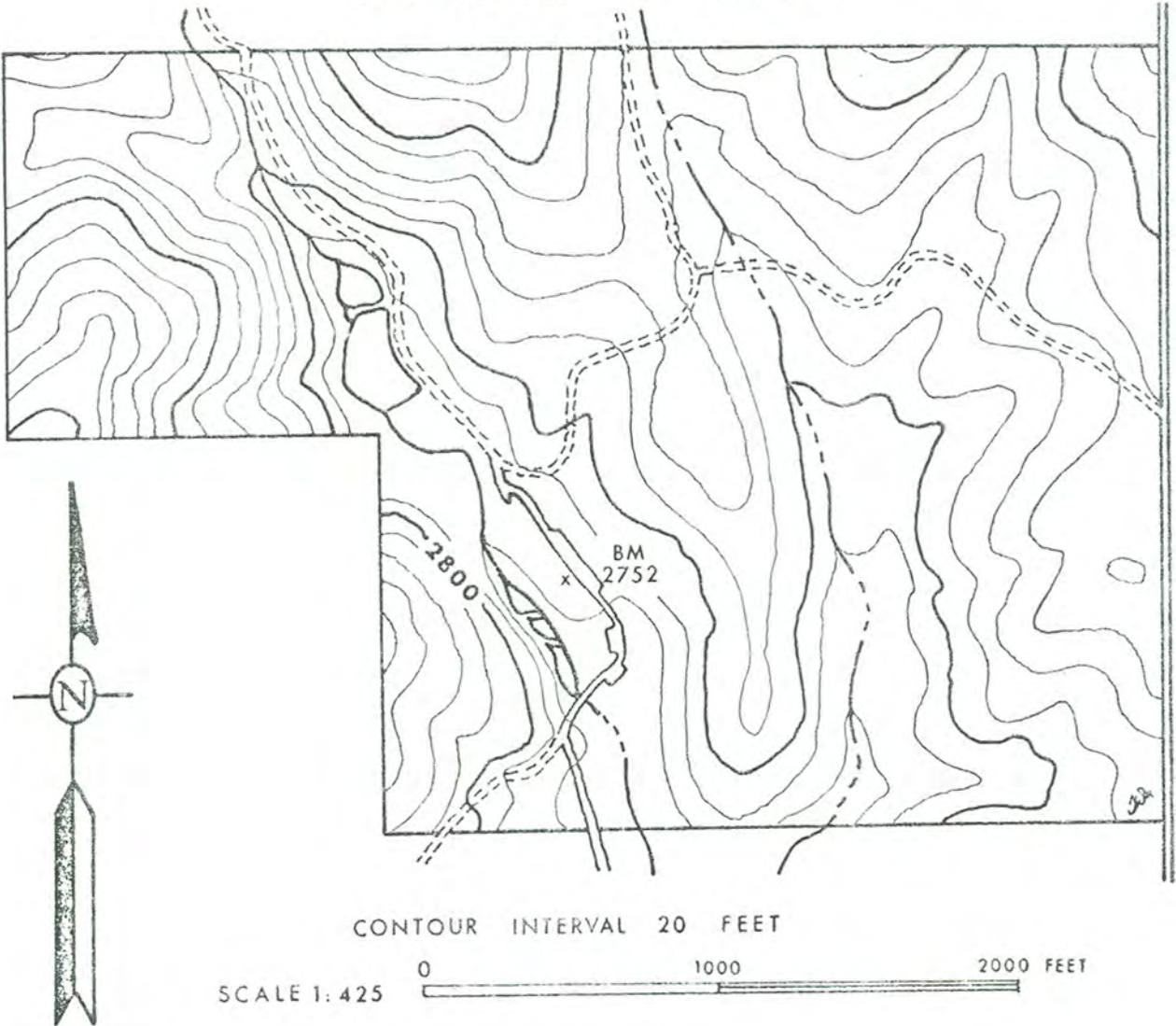
Background and History

Part of the Big Meadow Creek Recreation Area was acquired in the original 3,646 acre parcel given to the University in 1932 for

¹Marion Clawson and Jack L. Knetsch, Economics of Outdoor Recreation (Baltimore: Johns Hopkins University Press, 1966), p. 255.

Figure 1

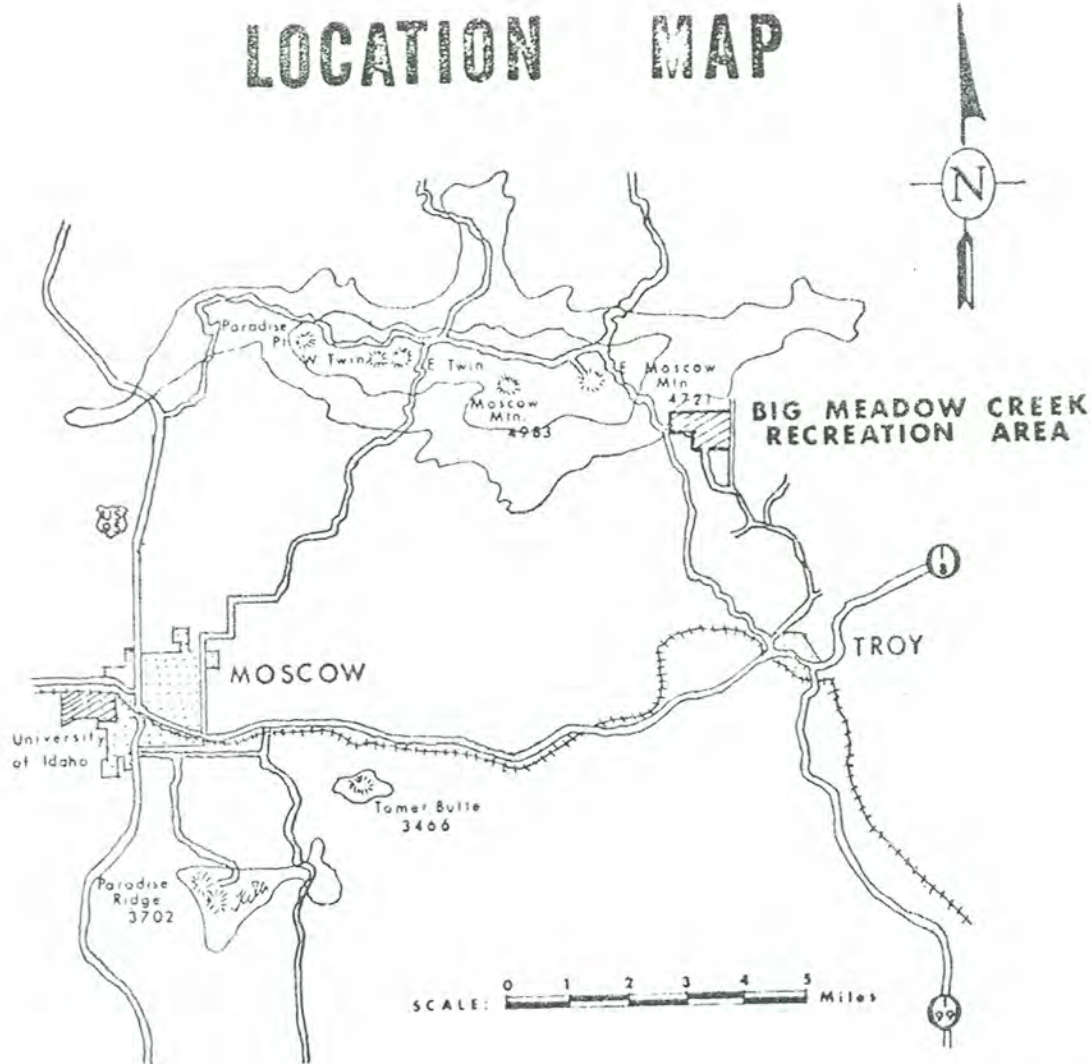
BIG MEADOW CREEK RECREATION AREA



"experimentation in methods of silvicultural management" by Potlatch Corporation, then known as the Forest Development Company.² The remainder was purchased as a subsequent addition from Mr. O. Nelson in 1934 and

²Francis G. Miller, "Gift of Experimental Forest [sic]", Idaho Forester, 15:18, 1933.

Figure 2



included land occupied by Civilian Conservation Corps (CCC) Camp S-260.³

The CCC camp, located in the vicinity of the main meadow, provided quarters for about two hundred men. Activities of camp S-260 included area cleanup and reforestation following a 1931 fire. Roads, trails, water impoundments, etc. presently located in this general area were constructed by the CCC. After the camp was abandoned, it deteriorated with age and cattle were subsequently allowed to graze on the main meadow.

³M.G. Neale, "Toward a University Forest on Moscow Mountain," Idaho Forester, 16:12-15 & 46-47, 1934.

Big Meadow Creek Recreation Area was developed as a demonstration recreation area in this same location between March of 1967 and October of 1969 using "formula grant" funds (Federal matching grant funding distributed in accordance with a specified formula). Planning, design and construction was conducted largely through the efforts of students as a class project in 1969.⁴

The site is typical of a rugged, rustic, rural picnic area. Subtle improvements include fifteen fireplaces and picnic tables located in and about a meadow and the canopy provided by surrounding trees. A small man-made pond, located a few hundred feet northeast of the main meadow, is reached by an undeveloped roadway access. Vehicle parking is provided for in graveled areas marked by rough-hewn border logs. Outdoor, pit-type, toilet facilities are provided at either end of the meadow and trash receptacles are placed at various unobstrusive locations. The natural appearance of the area is preserved in spite of these conveniences. The present condition and esthetic appearance presented is generally good, although some deterioration, largely caused by vandalism and abuse, has occurred. Three self-guiding trails originally installed in the area are now overgrown and difficult to discern even with the aid of a map.⁵

⁴Letter, H.R. Alden to R.K. Kooi, October 2, 1969, University of Idaho, Recreation Department Files.

⁵University of Idaho, Interpretative Trails of the Big Meadow Creek Recreation Area [sic] (Moscow, Idaho: University of Idaho, 1969), pp. 1-15.

Problem Definition

The decision-maker's problem may be specified in terms of the standard elements of a problem:⁶

1. Identification of the decision-maker;
2. Identification of the decision-maker's objectives;
3. Likely courses of action;
4. The problem environment; and
5. The existence of doubt as to the "best" course of action.

The decision-maker is readily identified as the Coordinator of the School Forest, Professor Franklin H. Pitkin. He has been charged by the Dean of the College with responsibility for overall management and coordination of all activities within the School Forest. As coordinator, Professor Pitkin's objective for utilization of the School Forest and Big Meadow Creek Recreation Area is to maximize returns to the University while limiting associated administrative problems without interfering with primary College interests of education and research.

In a hierarchical arrangement, the best outcome would be for Big Meadow Creek Recreation Area to be a net revenue producing portion of the School Forest. Failing this, self-sufficiency in terms of producing sufficient revenues to offset the expenses of managing the site is desired. A final fallback position is to produce revenues to partially offset or minimize annual costs of operation and maintenance. Should there be no promising courses of action for obtaining any of these outcomes, other alternatives arise.

⁶Russel L. Ackoff, Scientific Method: Optimizing Applied Research Decisions (New York: John Wiley & Sons, 1962), p. 30 and Carl H. Stoltenberg, et al., Planning Research For Resource Decisions (Ames, Ia.: Iowa State University Press, 1970), p. 26.

Likely courses of action, besides retention of the area within auspices of College and University, include sale, lease, or donation of Big Meadow Creek Recreation Area. If retained, the area can be further developed, left essentially as is, or eliminated as a recreation site. Joint administration of the area with another agency is possible. Contractual details are, however, formidable and possibly very costly.

The environment within which the decision-maker must operate consists of several factors which are not under his control. These are: (a) the demand for recreation at Big Meadow Creek Recreation Area; (b) its suitability as an outdoor recreation area; (c) its competitive position with other relatively nearby recreation areas; and (d) the reactions of various entities (such as the College Dean, current users, University Board of Regents, and administrative officials) to differing proposals.

Given the several alternatives, an element of doubt as to which course of action is "best" is definitely present. Relative to the Big Meadow Creek Recreation Area the decision-maker has a twofold desired outcome: (a) to maximize revenues; and (b) to mitigate managerial/administrative problems being encountered. The decision-maker is unable to decide upon a proper course of action to achieve his objective because he lacks relevant information upon which to base the decision.

Assumptions

The solution of almost all problems requires postulates or assumptions. The assumptions presented here are those of the analyst; they are organized under four separate categories:

1. General assumptions;



Location of Complete Research:

Author & Title: **Thomas Wood Moore:**
**A FINANCIAL ANALYSIS OF BIG MEADOW
CREEK RECREATION AREA**

University of Idaho Library:

Call Number- **GV191.42.I2M66**

College of Natural Resources:

Department- **Forest Recreation**

Other Sources: