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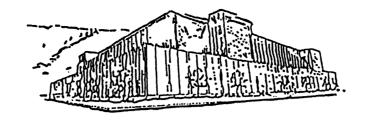
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BUSINESS PLAN AND ACCOUNTING SYSTEM FOR THEODORE ROOSEVELT MEMORIAL RANCH

by

Timothy G. Olson

Presented as partial fulfillment of the requirements

for the degree of

Master of Business Administration

The University of Montana

1996

Approved by:

Chairperson

Dean, Graduate School

1-23-97

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Business

Business Plan and Accounting System for Theodore Roosevelt Memorial Ranch (84 pp.)

Director: Charles E. Keegan, III

The Boone and Crockett Club recognizes that wildlife conservation in the future will involve sound and innovative business management as well as sound wildlife management. Improved financial management techniques, accurate accounting of costs and benefits, and better marketing of products and services on Theodore Roosevelt Memorial Ranch (TRMR) will assist Boone and Crockett Club to develop a working model to demonstrate the viability of wildlife conservation and management on farms and ranches.

The chapter on management accounting provides TRMR with a methodology to analyze financial data and provides the framework for operating a financial analysis spreadsheet template, which is used to perform analyses of various operating scenarios.

A business plan was prepared and it included all facets of TRMR operations, discussed various markets served by the Ranch, reviewed future development plans, and reviewed present cash flow and financial results.

The business plan provides a working document which will assist TRMR to operate the Ranch at its current level as well as plan for future changes. The management accounting system gives TRMR a tool with which to monitor current operations and to do an analysis of planned changes at the Ranch before they are actually implemented.

Acknowledgments

There are many people who have helped me with this project. First of all, I want to thank Boone and Crockett Club for funding it. I also want to thank Dr. Larry Gianchetta, Dean of the School of Business Administration of The University of Montana, for introducing me to this project. My thanks to the three members of my thesis committee: Charles E. Keegan, III, Dr. Hal Salwasser, and Dr. Paul Larson for providing me with review and editing assistance. Mr. Keegan especially helped me to keep on schedule and guided me through the process of writing a thesis. I want to thank Dr. Salwasser for helping to coordinate my research work with the needs of Boone and Crockett Club and other Boone and Crockett Research Fellows. I want to thank Ranch manger, Bob Peebles for his time during trips to the Ranch and for review and editing assistance. Also, I want to thank the following Boone and Crockett Research Fellows for their support and assistance: Thomas Baumeister, Greg Schildwachter, Kris Hurlburt, and Jason Moeckel.

I want to thank my family. First, I want to thank my mom and dad, Ada and Gordon Olson for their support and encouragement. They have always been there for me. I want to thank my children, Sarah and Garrett for their inspiration and patience. Lastly, I want to thank my wife Patti for all of her love and support in life, as well as the support and assistance during the last two years as I completed my course work and research leading to completion of my MBA degree.

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Introduction

The Boone and Crockett Club, in its pamphlet entitled "Blazing New Trails for Conservation," recognizes that "most wildlife species no longer live in pristine places that have no people." Instead, they live in areas where people also live. The Boone and Crockett Club purchased the 6,040 acre Theodore Roosevelt Memorial Ranch (TRMR) to, among other things, demonstrate methods for sustaining family-owned and family-operated farms and ranches that provide good wildlife habitat.

The Boone and Crockett Club recognizes that wildlife conservation in the future will involve sound and innovative business management as well as sound wildlife management. Improved financial management techniques, accurate accounting of costs and benefits, and better marketing of products and services on TRMR will assist The Boone and Crockett Club in developing a working model to demonstrate the viability of wildlife management on farms and ranches.

The goal of this project is to develop a management system which will allow TRMR to monitor and enhance its operation, improve its long-term financial viability, and evaluate the impact wildlife has on the Ranch.

The objectives of this thesis are to:

- Develop a management accounting system for use in managing the integrated operations of TRM Ranch and its associated research, education and public use programs.
- 2. Develop a business plan which will discuss ways to integrate Ranch operations, research, education and public use of wildlife and other recreational activities. The business plan will also discuss major aspects of business operation of TRMR.

Methods of Study

Farmers and ranchers often undertake activities to improve wildlife habitat and would probably do more if they could profit by integrating wildlife related products and services into their farming and ranching operations. Increased awareness of wildlife values and demonstration of ways to realize financial gains from promoting these wildlife uses, can encourage private landowners to take a greater role in preserving wildlife habitat (Noonan and Zagata 1982).

A management accounting system and a business plan are two important tools used to evaluate the current financial situation of an organization. In addition, they are working documents that provide the capability to evaluate potential changes in its operating structure. The ability to evaluate alternative operating scenarios beforehand, gives an organization a way to quantify and evaluate financial ramifications prior to actually implementing changes.

Accounting System

The accounting system is a key organizational tool to keep track of operations. The system should be designed to provide information for four main purposes (Horngren, Foster and Datar 1994).

- 1. Internal reporting used to plan and control operating costs and to assist in evaluating activities and people.
- 2. Internal reporting on product profitability.
- 3. Internal reporting that will assist in long-range and strategic planning as well as provide information to develop new products and expand operations.
- 4. External reporting in financial statements provided to owners and others not directly involved in operating the organization.

Related to the above, there are some specific reasons why a farmer, rancher, and others keep accounting records (Doster and Pershing 1994). They are:

- 1. Provide summarized information for filing tax returns.
- 2. Assist in establishing, maintaining or improving their credit records.
- 3. Maintain supporting records to allocate income or expenses pursuant to sharing or leasing arrangements.
- 4. Provide financial information to do an analysis of product lines or expense control.
- 5. Provide historical data to prepare budgets.
- 6. Handling estate probate and taxation assistance.

Some of the reasons listed above do not specifically apply to TRMR, so the management accounting system will not address them. The primary goals of the management accounting system at TRM Ranch are to provide assistance in analyzing costs and to process information in a financial analysis spreadsheet.

In order to evaluate financial performance of TRMR, an accounting system is required. Part of this research project will be to develop a management accounting system which will summarize costs and benefits related to the Ranch. The system will allow Boone and Crockett Club to compare TRMR, operated as a traditional ranch, with various scenarios that include an array of wildlife related products and services. The system will include:

- the ability to analyze and present financial impacts of alternative operating scenarios.
- the ability to produce pro forma financial information for Ranch operations.

There are several important points to consider when developing TRMR's management accounting system and these include:

- 1. A discussion of background information on accounting issues such as:
 - Allocation of expenses.
 - Cost control management.
- 2. A discussion of how to evaluate and analyze possible program changes at TRMR, which will include:
 - Program evaluation.
 - Market analysis.
 - Financial feasibility.
 - Incremental analysis.
 - Break-even analysis.
 - Capital budgeting analysis.
- 3. A discussion and review of a financial analysis spreadsheet template that will provide Ranch management with a tool to analyze possible program changes at TRMR.

TRMR presently has a bookkeeping system that provides adequate input information for a management accounting system. Ranch operations are presently summarized on a spreadsheet program by the Ranch manager and his wife (Peebles and Peebles 1995). The summarized data are forwarded to Boone and Crockett Club headquarters and integrated into Boone and Crockett Foundation accounting records (Sawyer 1995).

Business Plan

A business plan is a detailed report which reviews the most critical aspects of a business or organization. This detailed review is an important tool to plan for the future of the business. An important goal in designing and writing a business plan is to look at, address and plan for major factors which will impact the business. Planning has a greater chance of success if this detailed analysis is done beforehand.

The business plan describes strategies on how to operate a business. It also includes an analysis of and planning for external factors which will impact the business. The plan also discusses structure of the business and describes how the business is organized, managed and operated (Larson 1990).

Joseph R. Mancuso, in his book "How to Write a Winning Business Plan" discusses three important reasons for writing a business plan. They are:

- 1. The process of putting a business plan together, including the thought put in before beginning to write it, forces you to take an *objective*, *critical*, *unemotional* look at your business project in its entirety
- 2. The finished product your business plan is an operating tool which, properly used, will help you manage your business and work toward its success.
- 3. The completed business plan is the means for communicating your ideas to others and provides the basis for your financial proposal (Mancuso 1985).

Of the three reasons, the second one is the most important reason for preparing a business plan for TRMR. Future planning and strategy development should be aided by reference to the business plan.

The business plan will include a discussion of uses of TRMR wildlife related products and services. These uses and values will be obtained:

- by reviewing literature.
- through discussions with other TRMR research team members.
- through discussions with TRM Ranch manager.

The business plan for TRMR consists of various sections that will cover different aspects of Ranch operations. The discussion below, briefly reviews the business plan outline and discusses each of the sections. The section headings were adapted from a general outline presented in <u>The Montana Entrepreneur's Guide</u> (Larson 1990).

• Executive Summary

This section provides an overview of the business plan and covers basic elements of TRMR.

• TRM Ranch and Its Overall Strategy

A history of TRMR is presented in this section. The reasons why Boone and Crockett Club purchased the Ranch and their objectives in operating it are covered.

• Management Team

TRMR is operated by an on-site manager. In addition, various Boone and Crockett Club committees and members oversee Ranch operations. This section reviews and discusses the entire management team involved in operating the Ranch.

• Operations Plan

This section covers how TRMR is currently operated. The typical yearly cattle operating and production cycle is reviewed here.

Marketing

Each product line is reviewed in this section. Possible alternative uses of the Ranch and new innovative marketing strategies are reviewed. The marketing of possible other wildlife products and services is also covered in this section.

Overall Schedule

This section lists and discusses important and critical dates concerning TRMR.

Financial Plan

Actual income statements for fiscal years June 30, 1994 and 1995 and ten months through April 30, 1996 and balance sheets as of June 30, 1995 and 1996 are included in this section. A brief discussion of the financial statements is also included.

The business plan will provide Boone and Crockett Club with a comprehensive document that covers many critical aspects of organization, operation and opportunity faced by TRMR.

Management Accounting System

Overview

This chapter reviews a management accounting system that will allow TRMR to combine Ranch operations with financial information related to the Club's wildlife conservation, education, research, and public service programs.

The main feature of the management accounting system is a spreadsheet template that consolidates all the aforementioned programs and gives TRMR management a tool with which to analyze proposed changes to the operating structure of the Ranch before actually implementing the changes. The template features columns for each of the product lines, input areas for allocation percentages, and can be modified by Ranch management as needed.

The financial analysis spreadsheet starts by looking at revenues and expenses directly related to TRMR. The primary reason for doing this is to provide a mechanism by which Ranch expenses are allocated among product lines present on the Ranch. An allocation of only these expenses provides a baseline benchmark against which possible changes to the Ranch operation can be measured. The first two product lines - the cow/calf operation and public recreation and use are potentially present on virtually any ranch operation. The research, education and public service product lines are generally not a concern to other ranch operations.

The Boone and Crockett Foundation, through its wildlife conservation, education, research, and public service programs, expends costs that are related to TRMR. These

costs are Foundation expenses and are not directly related to the operation of the Ranch.

The financial analysis spreadsheet incorporates these costs into a comprehensive analysis of the Ranch.

For purposes of the financial analysis spreadsheet, the Boone and Crockett Foundation should be viewed as a customer of TRMR. Even though the Foundation owns the Ranch, they should be treated as any other Ranch customer. Many of the programs they sponsor utilize Ranch property and resources and if an independent organization sponsored similar programs, they would be charged a fee. The spreadsheet is flexible and gives Ranch management the ability to enter revenues for Foundation use of the Ranch so that the true economic revenue generated by TRMR is reflected.

There are several issues that have an impact on how to allocate Ranch expenses and these are reviewed in the next section.

Allocation of Ranch Expenses

TRMR has expenses that benefit not only the cow/calf operation and public recreation and use product lines, but also support research, education, and public services. One of the most important initial steps in developing data for financial analysis of the Ranch, is to allocate operating expenses into various product lines.

There are at least four general criteria which guide cost allocation decisions (Horngren, Foster and Datar 1994).

 <u>Cause and effect</u>. A variable such as hours of time spent on various tasks is used to make a cost allocation.

- Benefits received. Costs are allocated among the beneficiaries or product lines, in the case of the Ranch, in proportion to the benefits received.
- Fairness or equity. Costs are allocated based on perceived fairness or equity.
- Ability to bear. This method is based on a product line's ability to be charged the expense.

None of these criteria offer the perfect way to allocate expenses, since by it's nature, any cost allocation method is arbitrary. Ranch management should consider the four criteria listed above and make subjective decisions about how to allocate Ranch expenses. Some expenses such as the Ranch manager and hostess salaries can be allocated on the basis of time (hours or days). Many other expenses should be allocated on the basis of an estimated overall use of Ranch property. For most expenses however, there is no easily determined objective way to allocate them and Ranch management must use their judgment on how to best allocate them.

To do a financial analysis of TRMR, Ranch management first needs to allocate costs and expenses based upon present utilization of Ranch resources. Once this allocation is complete, management can then analyze possible changes to Ranch operations by performing a feasibility analysis.

Feasibility Analysis

A feasibility analysis considers the following characteristics of a program addition:

- An evaluation of whether the proposed program fits into the Ranch management and operating structure.
- How to assess the market for the proposed program.

• Calculation of financial feasibility.

Each of these characteristics considers an important element of a feasibility analysis.

The first characteristic is program evaluation.

Program Evaluation

Probably the most crucial indication of a potentially successful program addition to the Ranch is a thorough analysis of how well the proposed program will fit into the Ranch operation. How will the proposed program impact other programs on the Ranch? Will it be complementary or will it detract from or damage other programs? Can this new program succeed only if added in conjunction with another new program? Will the Ranch have to drop an existing program if the new one is added? There are likely other additional questions and all of them should be raised, addressed, and resolved before any significant program changes can be successfully implemented at the Ranch.

Ranch management must fine tune their strategic goals related to the Ranch and make sure proposed changes are in congruence with their overall strategy. In other words, is it the right time to institute a particular change?

The Ranch manager is likely the key management team member to consider, when an evaluation is made for changes at the Ranch. Does the manager embrace the change and have the training to successfully implement the change? If training is needed, what is the best way for the manager to obtain it?

At least in the investigative, pre-operating stages, the program evaluation phase is critically important. The next stage is to determine the market potential for the proposed new program.

Market Analysis

The primary goal of preparing a market assessment is to determine if there will be enough customers, willing to spend enough money on the product or service to provide the revenue needed to cover the incremental expenses and provide an actual profit.

Performing some basic marketing research will help determine how a specific market operates. This research ideally will provide the following information:

- How many potential customers are there and what are their profile characteristics?
- Who are your competitors? How many are there and how do they operate?
- How successful are your competitors?
- What does it take to succeed in the proposed business and its marketplace?

This initial information is just a start. Depending upon the nature and scope of the proposed new program, a more thorough investigation of the market may be warranted. The final step will be to specifically analyze the financial feasibility of the program. Will the proposed project pay for itself?

Financial Feasibility

Incremental Analysis

The first step in a financial feasibility analysis consists of an accumulation of the incremental project revenues and expenses.

A new proposed project can be evaluated on it's own merits. In order to do an analysis of possible additional programs or product lines, a projection or prediction of the revenues and costs associated with the change must be made. An incremental analysis is based only on the expected future costs and revenues for that particular program. Past

decisions on how historical costs were split among different product lines do not impact the analysis of the new program. The incremental revenues and costs are the only relevant items in the analysis (Horngren, Foster and Datar 1994).

Such an analysis is illustrated by the hypothetical addition of a fee hunting program on the Ranch. This program is an incremental activity which consists of a financial projection of revenues and costs associated with fee hunting. Costs could include additional insurance, extra fencing supplies, additional telephone costs and extra administrative supplies. Revenues would be the expected fees charged for hunting day access. Only newly projected revenues and expenses directly related to the proposed fee hunting program are included in its financial analysis.

An analysis of a proposed additional product line done in this manner gives the Ranch management team the opportunity to evaluate the proposed activity exclusively on it's own merits and a financial analysis of the program itself. Evaluating the actual financial outcome of this new project is not possible if previously allocated Ranch expenses are allocated to this new proposed program.

In determining the estimated program revenues, it is important to be conservative and not be overly optimistic. Be realistic, but do not overestimate your market and revenues especially at the start of the program. You may also want to develop a range of sales estimates, such as low, medium, and high. When estimating expenses, try to be realistic and thorough, so you develop a complete listing of the incremental costs associated with the new program. Often times, expense projections are either incomplete or unrealistically low. At this stage of program analysis, it is better again to estimate expenses too high.

One way that management can formalize the process of developing estimated program revenues for TRMR is to do a sensitivity analysis of cattle prices to produce a range of possible revenues. A sensitivity analysis asks the question - what happens to our financial projection if originally assumed cattle prices are not realized or a previous assumption changes (Horgren, Foster and Datar 1994)? By doing a sensitivity analysis, management is forced to look closely at the assumptions used to develop a revenue estimate. They may even decide to produce multiple scenarios, one for each revenue projection. A sensitivity analysis should also consider major operating expenses such as feed. If TRMR significantly increased herd size, feed costs will increase and various scenarios should reflect possible changes in the price of purchased feed.

The next step is to perform various analyses on your projected program revenues and expenses.

Break-even Analysis

One of the first ways to determine the financial viability of the proposed program is to see if it has a positive cash flow. Total the revenues and subtract the expenses to see if you expect it to provide a positive or negative cash flow. If the program gives you a negative cash flow, are you willing to still implement it? How long will it take to increase revenues or decrease expenses to at least break-even or give you a positive cash flow?

This simple cash flow analysis framework gets more complicated and is not an adequate way to analyze the program, if the proposed program requires a significant amount of initial capital to purchase or significantly improve equipment or buildings. If

the proposed program features these attributes, a more detailed capital budgeting analysis is needed.

Capital Budgeting Analysis

Capital budgeting consists of an analytic process that makes long-term planning decisions for incremental investments and program changes. This type of analysis considers more than just the proposed cash flows that result from the program. It takes into consideration acquisition costs for equipment or buildings, discount rates, and also considers multiple years. Again, the analysis considers only incremental and relevant costs related specifically to the proposed program (Horngren, Foster and Datar 1994).

The capital budgeting process is complicated and lengthy and this discussion will only briefly review the basics.

There are several ways to analyze the financial aspects of a proposed project. Two of them, the net present value and internal rate-of-return methods, use discounted cash flows. They both compare cash inflows (revenue) against cash outflows (expenses and capital improvements) over a multiple year period. They also consider the time value of money by applying a discount rate or required rate of return to quantify the financial feasibility or expected outcome resulting from the project (Horngren, Foster and Datar 1994). Ranch management should set the discount rate, which is the required minimum acceptable rate of return on the program.

The next section deals with another important consideration of TRMR's management accounting system. Management and control of expenses and costs is an important way to improve financial results of the Ranch.

Cost Control Management

The financial situation at the Ranch operated solely as a cow/calf operation is dependent on calf sales volume and prices received, as well as on the level of operating costs incurred during the year. In most cases, the amount of sales revenue is out of the control of the individual rancher and is set by market forces elsewhere. Therefore, an effective way the Ranch can improve its financial position and profitability, is by management of Ranch resources and by exercising cost control.

One way to exercise control over Ranch costs and expenses is to make full use of the budgeting process. Currently, the Club approves a yearly Ranch budget which provides an important tool to guide the Ranch throughout the year.

The following list describes many functions of the budgeting process. Management should be aware of these so they can make best use of their planning and budgeting process (Horngren, Foster and Datar 1994).

- Planning of operations.
- Coordinating activities.
- Implementing plans.
- Communicating.
- Authorizing actions.
- Motivating.
- Controlling.
- Evaluating performance.

A second way to control Ranch costs is to do long-range planning and integrate maintenance and improvement plans within this planning framework. An example of this type of cost control management is performing routine repairs and maintenance on a regular, pre-scheduled basis, so that long-term, the Ranch minimizes the amount of maintenance or replacement costs. Another example of this concept relates to coordinating major maintenance items such as creek crossings. In the strategic planning process, Ranch management should evaluate the trade-off of a program of yearly grading and maintenance of crossings with a more costly permanent maintenance or improvement that lasts for several years. It is possible that more expensive permanent improvements may be less costly in the long run. The only way to tell is to compare the two maintenance options through a capital budgeting analysis. This example was used to illustrate how long-range planning can have an impact on current Ranch operating costs and is not necessarily a specific suggestion of what costs the Ranch should review.

The next section reviews the financial analysis spreadsheet, a tool used to perform analyzes of various alternative operating scenarios at TRMR.

Financial Analysis Spreadsheet

Overview

The financial analysis spreadsheet (FAS) consists of nine separate worksheets prepared using Microsoft Excel. A worksheet is the computer equivalent of a columnar pad of paper. It has cells contained in columns and rows in which words, numbers or mathematical formulas are input. The spreadsheet performs various financial and mathematical calculations based upon the instructions contained in its cells.

The FAS contains four input forms, each in a separate Excel worksheet. The user inputs data into these forms and the spreadsheet uses this information to perform its calculations. The four input forms are:

- 1. Program description and time period.
- 2. Revenue.
- 3. Expense.
- 4. Boone & Crockett Wildlife Program costs.

The following four output reports analyze and summarize the information contained in the input forms and are each contained in an Excel worksheet.

- 1. Compiled Results.
- 2. Revenue Analysis.
- 3. Expense Analysis.
- 4. B & C Wildlife Program Costs.

The final worksheet in FAS contains capital budgeting models in which proposed changes to Ranch operations are analyzed.

The FAS gives Ranch management a tool with which they can assess the financial ramifications of alternative operating scenarios at the Ranch. The next section covers how to operate the FAS.

Operation

Worksheet Operation

This section details how to open the worksheets contained in FAS and operate Excel.

The instructions assume the user knows how to operate Microsoft Windows 3.1. The worksheets were written using version 5.0 of Excel.

The first step is to open the program group containing Excel and to open Excel 5.0 by clicking on its icon with the mouse. The next step is to open the worksheets. Insert the

diskette containing the FAS template into the disk drive of your computer. Point to the file, open command on Excel's toolbar and choose drive a or b (whichever corresponds to the drive containing the FAS diskette) and highlight and click on the file named FAS.

The FAS file contains the following worksheet templates. The first column corresponds to the worksheet tab listed at the bottom of the computer screen. The second column is a description of the template.

<u>Tab</u>	Template Description
1	Program description and time period
2	Revenues
3	Expenses
4	Boone & Crockett Wildlife Conservation Costs
Cmpl	Compiled Results
Rev	Revenue Analysis
Exp	Expense Analysis
B&C	Boone & Crockett Wildlife Conservation Analysis
Cap Bud	Capital Budgeting Analysis

The FAS file contains templates that have descriptions, but no numbers entered into them. The user should maintain the template files in blank form, so they can utilize them for future analyses. The way to do this is to use the file, save as command to save the worksheets under a separate file name after numbers and data have been input into them.

By saving the changed file in this way, the user maintains the FAS in its original blank form. The user opens their changed FAS file as previously described by inserting the new file name chosen when the file, save as command was used.

Input Forms Operation

This section discusses how to use each of the input forms and also reviews the output reports. Each spreadsheet has protected cells that cannot be easily changed. The protected cells are shaded gray. The user inputs information into the unshaded areas.

• Tab 1 - Program Description and Time Period

This form is used to input a program title, description and time period. This information flows automatically to output reports as description headers. Each time the user analyzes a separate scenario, information on this form should be changed so that the output results can later be readily identified.

• Tab 2 - Revenues

Revenues related to TRMR are input on this form. A description and amount for each revenue item are input in the first two columns. There are six columns on the right side of the form that contain cells in which the user inputs allocation percentages. These six columns correspond to the six separate product lines present at the Ranch and the spreadsheet uses these percentages to allocate total revenue amounts to the product lines. There is a total percent column that displays total percentages allocated and is a proof to ensure that the user has input individual percentages that total one hundred percent.

• Tabs 3 & 4 - Expenses and Boone & Crockett Costs

Forms three and four are similar to form two in that description, amount, and allocation percentage for each item are entered in the appropriate columns. Once again, there is a total percent column to ensure that the percentages entered in the six product line columns add up to one hundred percent. Form three is used to enter Ranch operating expenses and form four is used to enter Boone and Crockett Wildlife Program costs. Information entered in these forms also flows to the output reports.

• Tab Cmpl - Compiled Results

The compiled results report consists of a summary of totals from the other three output reports. This report provides management with a total program profit or (loss) resulting from a consolidation of all revenues, expenses, and costs associated with TRMR.

• Tab Rev - Revenue Analysis

The revenue analysis report displays revenue items, total revenue and allocated revenue amounts based on information from input form number two. The spreadsheet automatically allocates product line revenues using percentages from this input form.

• Tab Exp - Expense Analysis

The expense analysis report lists expense items in total and as allocated along the six product lines using percentages from input form three. Totals are summarized at the bottom of the report.

• Tab B&C - Boone & Crockett Wildlife Conservation Analysis

This output report summarizes costs and displays their allocation based on percentages from input form four.

• Tab Cap Bud - Capital Budgeting Analysis

This worksheet contains a capital budgeting template that can be used to analyze various alternative operating scenarios at TRMR. There are input sections for cash flows and output and analysis sections.

The next section includes examples of the four input forms and four output reports contained in FAS using fiscal year-end June 30, 1996 TRMR budget numbers.

Input Form Number One

Program TRM Ranch

Description Financial Analysis of

FYE 6/30/96 Budget

Time Perio July 1, 1995 to June 30, 1996

Instructions for all input forms use.

- 1. The shaded portions of all form are protected and cannot be changed.
- 2 The unshaded areas are for data input. Information input in these areas transfers automatically to output worksheets.

Input Form Number Two

Revenue:		Allocat	ed To:			
	Tot	al Cow/	Pub.		Pub.	B&C
Description	Amount Per	c. Calf	Use	Resear. Educ.	Svc.	Club Other
Calf sales	64,050 10	100%				
Cow sales	4,400 10	100%				
Hay sales	0 10	100%				
Pasture lease	11,111 100	100%				
B & C Reimb.	6,534	100%				
		1%				
		%				
		9%				
		19%				
		19%				
		19%				
		1%				
		1%				
		1%				
		9%				
		9%				
		96				
		19%				
Total	86,095					

Instructions for input form number 2 use.

1 This form is used to input revenues. Insert a description and amount. Allocate the revenue amount to each product line by inserting a percentage (for example insert 1 for 10%).

Input Form Number Three

Expenses:			Allocate	d To:					
		Total	Cow/	Pub			Pub.	B&C	
Description	Amount	Perc.	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Cattle Permit/Grazing Fee	400	100%	100%						
Dues/Subscriptions	100	100%	100%						
Fencing Matl/Ranch Suppl	1,125	100%	100%						
Fertilizer/Hay	4,500	100%	100%						
Freight/Calf Shipping	400	100%	100%						
Fuel - Gas/Motor Oil	4,925	100%	100%						
Herbicide	750	100%	100%						
Insurance	5,450	100%	58%	20%	10%	5%	5%	1%	1%
Mineral/Salt/Feed	1,970	100%	100%						
Office Supplies	420	100%	80%	5%	5%	5%	5%		
Postal Expenses	360	100%	90%		10%				
Real & Pers. Prop. Taxes	6,170	100%	55%	10%	20%	5%	5%	3%	2%
Repair & Maintenance	5,600	100%	60%	30%	10%				
Travel & Entertainment	1,950	100%	90%	5%	5%				
Utilities	6,515	100%	68%	5%	15%	5%	5%	1%	1%
Telephone	1,320	100%	80%	5%	5%	5%	5%		
Veterinarian/Shoeing	3,125	100%	100%						
Wages/Benefits - Foreman	38,232	100%	55%	20%	10%	5%	5%	3%	2%
Wages/Benefits - Off. Mgr	13,200	100%	35%	20%	20%	10%	10%	3%	2%
Wages - Ranch Hands	1,500	100%	100%						
		0%							
		0%							
		0%							
		0%							
		0%							
		0%							
		0%							
		0%							
		0%							
		0%							
		***************************************	l						

Total 98.012

Instructions for input form number 3 use.

1. This form is used to input expenses. Insert a description and amount. Allocate the expense amount to each product line by inserting a percentage (for example insert. 1 for 10%).

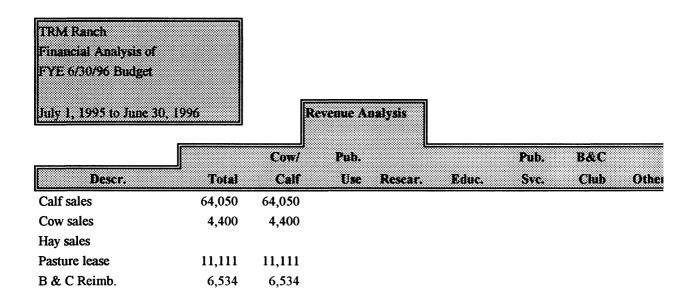
Input Form Number Four

B & C Wildlife Program:			Allocate	d To:					
		Total	Cow/	Pub.			Pub.	B&C	
Description	Amount	Perc.	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Cons. Ed. Program	17,000	100%				30%			70%
Cons. Ed. Contracts	15,000	100%				30%			70%
Private Lands/Pub Wildlif	22,500	100%							100%
Wildlife Hab. Rel. (Baum.	17,890	100%			100%				
Wildlife Hab. Rel. (Mills)	20,000	100%			100%				
T&E Cons. Priv. Lands	17,890	100%							100%
Environ. History	10,000	100%			100%				
TRMR Range Resp. Graz.	24,000	100%			100%				
TRMR Stream Geo.	25,080	100%			100%				
TRMR Business Plan	20,000	100%			100%				
B&C/UM Pub. Lect. Ser.	5,000	100%							100%
U. Mich. Endgd. Species	5,000	100%							100%
WMI Partner's Program	5,000	100%							100%
Local Cons. Projects	5,000	100%							100%
Watchable Wildlife Conf.	2,500	100%							100%
7th Amer. Forest Congress	5,000	100%							100%
Seeking Common Ground	2,500	100%							100%
Professor/Director	39,650	100%			20%	5%	5%	5%	65%
Miscellaneous	10,000	100%			20%	5%	5%	5%	65%
Office Supplies	2,000	100%			20%	5%	5%	5%	65%
Books	2,000	100%			20%	5%	5%		70%
Telephone	2,000	100%			20%	5%	5%	5%	65%
Travel & Entertainment	10,000	100%			20%	5%	5%	5%	65%
Hosting Spons. & Ptners	2,500	100%			20%	5%	5%	5%	65%
Capital Budget Items:		0%							
Office Equipment	15,000	100%			70%		5%	10%	15%
Field Equipment	10,000	100%			100%				
TRMR Facilities	5,000	100%			75%			10%	15%
		0%							
		0%							
Total	317,5[0		•						

Instructions for input form number 4 use.

1. This form is used to input B & C Wildlife Program expenses. Insert a description and amount. Allocate the expense amount to each product line by inserting a percentage (for example - insert .1 for 10%).

TRM Ranch Financial Analysis of FYE 6/30/96 Budget								
July 1, 1995 to June 30), 1996		Compiled 1	Results				
_		Cow/	Pub.	L	•	Pub.	B&C	
Descr.	Total	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Total Revenue	86,095	86,095						
Cost of Sales								
Gross Profit	86,095	86,095						
Expenses	98,012	62,258	14,184	10,000	4,225	4,225	1,848	1,272
Profit (Loss)	-11,917	23,837	-14,184	-10,000	-4,225	4,225	-1,848	-1,272
B & C Wild. Prog.	317,510			154,850	13,008	4,158	5,308	140,188
Prog. Profit (Loss)	-329,427	23,837	-14,184	-164,850	-17,233	-8,383	-7,155	-141,459
Proof Check	-329,427	47, 43 7			*******	79,2102	7,100	**********



Cost of Sales

Make Pesti	

TRM Ranch Financial Analysis of FYE 6/30/96 Budget

July 1, 1995 to June 30, 1996

Expense Analysis

		Cow/	Pub.			Pub.	B&C	
Descr.	Total	Calf	Use	Resear.	Educ.	Sve.	Club	Oth
Cattle Permit/Grazing Fee	400	400						
Dues/Subscriptions	100	100						
Fencing Matl/Ranch Suppl	1,125	1,125						
Fertilizer/Hay	4,500	4,500						
Freight/Calf Shipping	400	400						
Fuel - Gas/Motor Oil	4,925	4,925						
Herbicide	750	750						
Insurance	5,450	3,161	1,090	545	273	273	55	4
Mineral/Salt/Feed	1,970	1,970						
Office Supplies	420	336	21	21	21	21		
Postal Expenses	360	324		36				
Real & Pers. Prop. Taxes	6,170	3,394	617	1,234	309	309	185	12
Repair & Maintenance	5,600	3,360	1,680	560				
Travel & Entertainment	1,950	1,755	98	98				
Utilities	6,515	4,430	326	977	326	326	65	ŧ
Telephone	1,320	1,056	66	66	66	66		
Veterinarian/Shoeing	3,125	3,125						
Wages/Benefits - Foreman	38,232	21,028	7,646	3,823	1,912	1,912	1,147	7€
Wages/Benefits - Off. Mgr	13,200	4,620	2,640	2,640	1,320	1,320	396	26
Wages - Ranch Hands	1,500	1,500						

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HARMAN SALIT DATA	14 184 1111111 4	
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TRM Ranch Financial Analysis of FYE 6/30/96 Budget

July 1, 1995 to June 30, 1996

B&C Wildlife Program

			Pub.	L	Pub.	70.000	
		Cow/		***		B&C	
Descr.	Total	Calf	Use Resear.	Educ.	Svc.	Club	Oth
Cons. Ed. Program	17,000			5,100			11,90
Cons. Ed. Contracts	15,000			4,500			10,50
Private Lands/Pub Wildlif	22,500						22,50
Wildlife Hab. Rel. (Baum.	17,890		17,890				
Wildlife Hab. Rel. (Mills)	20,000		20,000				
T&E Cons. Priv. Lands	17,890						17,89
Environ. History	10,000		10,000				
TRMR Range Resp. Graz.	24,000		24,000				
TRMR Stream Geo.	25,080		25,080				
TRMR Business Plan	20,000		20,000				
B&C/UM Pub. Lect. Ser.	5,000						5,00
U. Mich. Endgd. Species	5,000						5,00
WMI Partner's Program	5,000						5,00
Local Cons. Projects	5,000						5,00
Watchable Wildlife Conf.	2,500						2,50
7th Amer. Forest Congress	5,000						5,00
Seeking Common Ground	2,500						2,50
Professor/Director	39,650		7,930	1,983	1,983	1,983	25,77
Miscellaneous	10,000		2,000	500	500	500	6,50
Office Supplies	2,000		400	100	100	100	1,30
Books	2,000		400	100	100		1,40
Telephone	2,000		400	100	100	100	1,30
Travel & Entertainment	10,000		2,000	500	500	500	6,50
Hosting Spons. & Ptners	2,500		500	125	125	125	1,62
Capital Budget Items:	,						,
Office Equipment	15,000		10,500		750	1,500	2,25
Field Equipment	10,000		10,000			,	,
TRMR Facilities	5,000		3,750			500	75
	-,		2,720				

Tatal 317 CIA		
[1 <b>0t4t</b> 317,319		

Proof Check

317,510

### **Demonstration of FAS**

In review, Ranch management should use the following steps when they do an analysis of the financial operating situation at TRMR.

- 1. Prepare/update the allocation of current expenses.
- 2. Do a financial feasibility analysis.
  - Evaluate the program.
  - Do a market analysis.
  - Look at the program's financial feasibility by performing the following analyses.
    - Incremental analysis.
    - Break-even analysis.
    - Capital budgeting analysis.

Each of the steps in this process will be demonstrated by using the 230 cow, budget scenario information prepared by Ranch management in September 1995 and comparing this information with the budget figures input and illustrated earlier. The analysis can be duplicated in the future by inserting other similar amounts into the model and by comparing and analyzing the alternative scenarios.

### Step 1 - Prepare/Update Allocation of Current Expenses

The first part of this step utilizes the 6/30/96 TRMR budget figures previously input into FAS and illustrated. The second component is the following set of input forms and output reports produced by FAS using the 230 cow budget scenario. It is important to note that each of these scenarios include revenue and expense projections for a specific

Ranch operating level: 140 cow/calf pairs for the 6/30/96 budget and 230 cow/calf pairs in the second scenario. The projections reflect changes in revenue and expense amounts consistent with a larger or smaller herd size. Information in the compiled results report will be used in a later step when analyses are made.

The 230 cow/calf scenario includes the same Boone and Crockett Wildlife Program costs as previously used. Expense allocation percentages remained the same under both scenarios for ease of illustration. Under real circumstances, the expense allocation percentages can and probably would be different when considering such a dramatic change to the cow/calf product line at the Ranch. The FAS is flexible and can easily be changed for any particular scenario.

# Input Form Number One

Program
TRMR Scenario Analysis
Increase Herd Size to
230 Cow/Calf pairs
Time Perio

### Instructions for all input forms use.

- 1. The shaded portions of all form are protected and cannot be changed.
- The unshaded areas are for data input. Information input in these areas transfers automatically to output worksheets.

# Input Form Number Two

Revenue:			Allocate	d Te:					
		Total	Cow/	Pub.			Pub.	B&C	
Description	Amount	Perc.	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Dry Cow Sales	12,580	100%	100%						
Calf Sales	101,108	100%	100%						
Pasture Lease	8,072	త్రిక్క్క్క్క్క్క్క్క్ 2	100%						
Total	121,760		1						

# Instructions for input form number 2 use.

1 This form is used to input revenues. Insert a description and amount. Allocate the revenue amount to each product line by inserting a percentage (for example insert. 1 for 10%).

# Input Form Number Three

Expenses:			Allocate	d To:					
		Total	Cow/	Pub.			Pub.	B&C	
Description	Amount	Perc.	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Wages/benefits Manager	36,612	100%	55%	20%	10%	5%	5%	3%	2%
Wages - Office Manager	13,200	100%	35%	20%	20%	10%	10%	3%	2%
Payroll taxes	1,200	100%	35%	20%	20%	10%	10%	3%	2%
Contract labor/fencing	5,000	100%	100%						
Hay - cut & baled	18,087	100%	100%						
Propane	3,000	100%	68%	5%	15%	5%	5%	1%	1%
Wood	250	100%	100%						
Electric	3,265	100%	68%	5%	15%	5%	5%	1%	1%
Telephone	1,320	100%	80%	5%	5%	5%	5%		
Property taxes	4,230	100%	55%	10%	20%	5%	5%	3%	2%
Vehicle/trailer taxes	540	100%	55%	10%	20%	5%	5%	3%	2%
Personal property taxes	2,200	100%	100%						
Vehicle expense	3,600	100%	100%						
Tractor expense	1,800	100%	100%						
Gas/motor oil	5,250	100%	88%		12%				
Cattle permit	400	100%	100%						
Fertilizer	7,000	100%	100%						
Vet/shoeing/other expense	5,060	100%	100%						
Mineral/salt/feed	3,186	100%	100%						
Herbicide	750	100%	100%						
Fencing material	1,125	100%	100%						
Freight/cattle shipping	655	100%	100%						
Office supplies/copies	420	100%	80%	5%	5%	5%	5%		
Postage	360	100%	90%		10%				
Travel/entertainment	1,950	100%	90%	5%	5%				
Dues/subscriptions	100	100%	100%						
Insurance	6,050	100%	58%	20%	10%	5%	5%	1%	1%
B&CC house maintenance	600	100%			50%			25%	25%
Manger's house maint.	200	100%	100%						
		0%							

Total <u>127,410</u>

# Instructions for input form number 3 use.

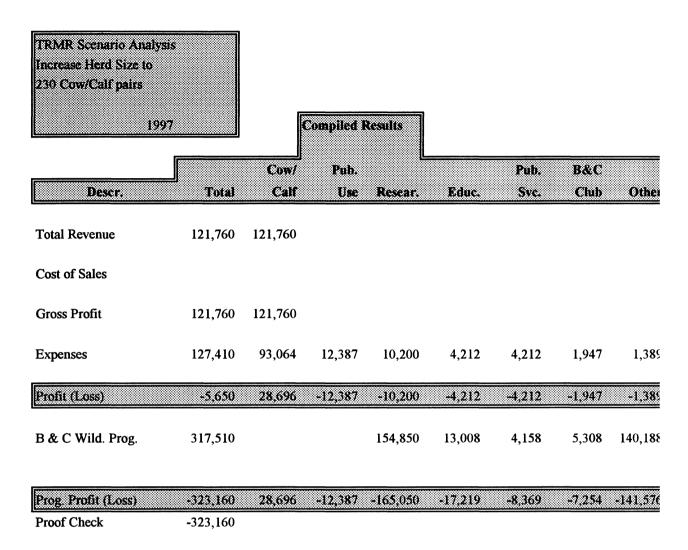
This form is used to input expenses. Insert a description and amount. Allocate
the expense amount to each product line by inserting a percentage (for example
insert 1 for 10%).

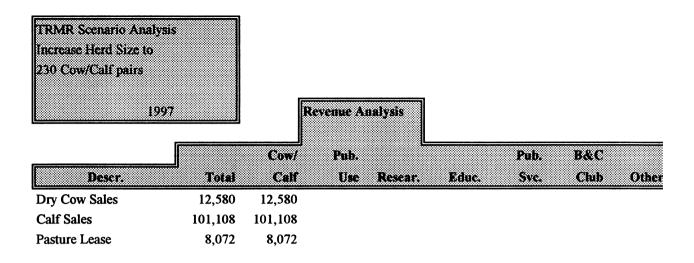
# Input Form Number Four

B & C Wildlife Program:			Allocate	d To:					
		Total	Cow/	Pub.			Pub.	B&C	
Description	Amount	Perc.	Calf	Use	Resear.	Educ.	Svc.	Club	Other
Cons. Ed. Program	17,000	100%				30%			70%
Cons. Ed. Contracts	15,000	100%				30%			70%
Private Lands/Pub Wildlif	22,500	100%							100%
Wildlife Hab. Rel. (Baum.	17,890	100%			100%				
Wildlife Hab. Rel. (Mills)	20,000	100%			100%				
T&E Cons. Priv. Lands	17,890	100%							100%
Environ. History	10,000	100%			100%				
TRMR Range Resp. Graz.	24,000	100%			100%				
TRMR Stream Geo.	25,080	100%			100%				
TRMR Business Plan	20,000	100%			100%				
B&C/UM Pub. Lect. Ser.	5,000	100%							100%
U. Mich. Endgd. Species	5,000	100%							100%
WMI Partner's Program	5,000	100%							100%
Local Cons. Projects	5,000	100%							100%
Watchable Wildlife Conf.	2,500	100%							100%
7th Amer. Forest Congress	5,000	100%							100%
Seeking Common Ground	2,500	100%							100%
Professor/Director	39,650	100%			20%	5%	5%	5%	65%
Miscellaneous	10,000	100%			20%	5%	5%	5%	65%
Office Supplies	2,000	100%			20%	5%	5%	5%	65%
Books	2,000	100%			20%	5%	5%		70%
Telephone	2,000	100%			20%	5%	5%	5%	65%
Travel & Entertainment	10,000	100%			20%	5%	5%	5%	65%
Hosting Spons. & Ptners	2,500	100%			20%	5%	5%	5%	65%
Capital Budget Items:		0%							
Office Equipment	15,000	100%			70%		5%	10%	15%
Field Equipment	10,000	100%			100%				
TRMR Facilities	5,000	100%			75%			10%	15%
	ĺ	0%							
		0%							
Total	317.510		I						

# Instructions for input form number 4 use.

 This form is used to input B & C Wildlife Program expenses. Insert a description and amount. Allocate the expense amount to each product line by inserting a percentage (for example - insert .1 for 10%).





Total Revenue 121,760 121,760	
Cost of Sales	

Gross Profit 121,760 121,760

TRMR Scenario Analysis Increase Herd Size to 230 Cow/Calf pairs

1997

Expense Analysis

_				L				
		Cow/	Pub.			Pub.	B&C	
Descr.	Total	Calf	Use	Resear.	Educ.	Svc.	Club	Othi
Wages/benefits Manager	36,612	20,137	7,322	3,661	1,831	1,831	1,098	<b>7</b> 3
Wages - Office Manager	13,200	4,620	2,640	2,640	1,320	1,320	396	26
Payroll taxes	1,200	420	240	240	120	120	36	2
Contract labor/fencing	5,000	5,000						
Hay - cut & baled	18,087	18,087						
Propane	3,000	2,040	150	450	150	150	30	3
Wood	250	250						
Electric	3,265	2,220	163	490	163	163	33	3
Telephone	1,320	1,056	66	66	66	66		
Property taxes	4,230	2,327	423	846	212	212	127	8
Vehicle/trailer taxes	540	297	54	108	27	27	16	1
Personal property taxes	2,200	2,200						
Vehicle expense	3,600	3,600						
Tractor expense	1,800	1,800						
Gas/motor oil	5,250	4,611		639				
Cattle permit	400	400						
Fertilizer	7,000	7,000						
Vet/shoeing/other expense	5,060	5,060						
Mineral/salt/feed	3,186	3,186						
Herbicide	750	750						
Fencing material	1,125	1,125						
Freight/cattle shipping	655	655						
Office supplies/copies	420	336	21	21	21	21		
Postage	360	324		36				
Travel/entertainment	1,950	1,755	98	98				
Dues/subscriptions	100	100						
Insurance	6,050	3,509	1,210	605	303	303	61	6
B&CC house maintenance	600			300			150	15
Manger's house maint.	200	200						

Proof Check 127,410

TRANS	cenario Analysi	¢.
********	ocianio i cianya.	ng.
increase	Herd Size to	
230 Cow	/Calf pairs	
	•	
	19	97

B&C Wildlife Program

		Cow/	Pub.		Pub.	B&C	
Descr.	Total	Calf	Use Resear.	Educ.	Svc.	Club	Oth
Cons. Ed. Program	17,000			5,100			11,90
Cons. Ed. Contracts	15,000			4,500			10,50
Private Lands/Pub Wildlif	22,500						22,50
Wildlife Hab. Rel. (Baum.	17,890		17,890				
Wildlife Hab. Rel. (Mills)	20,000		20,000				
T&E Cons. Priv. Lands	17,890						17,89
Environ. History	10,000		10,000				
TRMR Range Resp. Graz.	24,000		24,000				
TRMR Stream Geo.	25,080		25,080				
TRMR Business Plan	20,000		20,000				
B&C/UM Pub. Lect. Ser.	5,000						5,00
U. Mich. Endgd. Species	5,000						5,00
WMI Partner's Program	5,000						5,00
Local Cons. Projects	5,000						5,00
Watchable Wildlife Conf.	2,500						2,50
7th Amer. Forest Congress	5,000						5,00
Seeking Common Ground	2,500						2,50
Professor/Director	39,650		7,930	1,983	1,983	1,983	25,77
Miscellaneous	10,000		2,000	500	500	500	6,50
Office Supplies	2,000		400	100	100	100	1,30
Books	2,000		400	100	100		1,40
Telephone	2,000		400	100	100	100	1,30
Travel & Entertainment	10,000		2,000	500	500	500	6,50
Hosting Spons. & Ptners	2,500		500	125	125	125	1,62
<b>Capital Budget Items:</b>							
Office Equipment	15,000		10,500		750	1,500	2,25
Field Equipment	10,000		10,000				
TRMR Facilities	5,000		3,750			500	75

Total 317,5	10 154,850	13,008 4,158 5,308 140,18

Proof Check 317,510

### Step 2 - Evaluate the Program

In this step, Ranch management needs to thoroughly analyze an increase in herd size to 230 head. Among other things, they need to ask questions such as those listed below.

- How will an increase to 230 head fit into the Ranch operation?
- What will be the impact on other Ranch research, education, or public service programs?
- Can this change succeed on its own or must there be other concurrent changes made at the Ranch?
- If management increases herd size, will they have to drop either an existing program or one planned for in the future?

This list of questions is not all inclusive. The point is, management needs to ask these types of questions before they actually increase herd size.

#### Step 3 Do a Market Analysis

Management needs to update their analysis and understanding of the beef cattle industry and market before increasing herd size by asking the following types of questions.

- Where do they anticipate the beef cattle market to go? Is the market in an
  upturn or is it going down? This is a critical question since management
  needs to make multiple year, future cash flow projections.
- Are certain cattle breeds currently more easily sold into the beef cattle market? What is the future of a particular breed?
- What is the current market and price for breeding cattle purchased to increase herd size? Do they expect the purchase price to be either lower or higher in

the future, in other words, is the present time a good time to purchase these cattle?

These are just examples of some of the questions management should ask during this step. They need to develop and address many more similar questions in order to perform a thorough market analysis.

### Step 4 - Incremental Analysis

This step was accomplished when management prepared the 230 cow budget scenario referred to previously. Management revised both revenue and expense budgets, the difference being the incremental amounts. A sensitivity analysis of revenue and certain operating expenses should be prepared to support assumptions made in any proposed scenario. Management needs to do this incremental analysis for at least a five year period, the results of which provide information to do a capital budgeting analysis.

#### Step 5 - Break-even Analysis

Again, management performed this step when they prepared an updated budget for 230 cows. Projected net cash flow increased from \$23,837, based on current herd size, to \$28,696 for 230 cows (refer to pages 27 and 37 respectively).

### Step 6 Capital Budgeting Analysis

Capital budgeting is a process of analyzing long-term planning decisions for incremental investments. Two primary ways to perform such an analysis are the net present value and internal rate-of-return methods and they both use cash inflows and cash outflows.

Cash inflows and outflows for a proposed increase of herd size to 230 head are listed below. The analysis considers five years of cash flows. Immediate cash outflows as listed by management for the two options of 1) keeping herd size the same, and 2) increasing it to 230 head are as follows:

<b>Description</b>	Keep herd same	Increase to 230
Horses	-0-	1,500
Cattle	12,000	87,200
Bulls	-0-	15,000
Add'l Ramada Inn (Shed)	-0-	11,200
Increase Interm./Calv. Shed	-0-	16,000
Improve Bull Pasture	-0-	400
Impr. Ramada Inn Pasture	-0-	200
Purchase Hay Wagon	<u>-0-</u>	<u>2,500</u>
Totals	12,000	134,000
Outflow to keep herd same		12,000
Incremental Cash Outflow		122,000

For purposes of illustrating this analysis, there will be only one immediate incremental cash outflow. In reality, there may be additional cash outflows during the five year period of the analysis. The model developed to do the capital budgeting analysis allows the user to input cash outflows for all five years.

Yearly cash inflows are listed below and are obtained from program profit (loss) lines on the compiled results output forms for each appropriate analysis.

Net cash flow - no change in herd size	23,837		
Net cash flow - increase to 230 head	<u>28,696</u>		
Difference = Additional net cash inflow	4 859		

The additional net cash inflow that results from increasing herd size to 230 head is considered a relevant cash inflow for the capital budgeting model. This initial additional net cash inflow will be used for net cash inflows for years two through four as well. In reality, cash inflows for each year will be different, but for purposes of this illustration, they remain constant for all five years.

When making a capital budgeting analysis, it is important to consider all cash inflows and outflows over the entire life of a proposed project or change. The case illustrated here assumes herd size is increased only for five years and at the end of the fifth year cattle and bulls purchased in year one are sold for \$102,200 (their original cost). Year five total net cash inflow is \$107,059, which is the total of the assumed yearly cash inflow of \$4,859 listed above plus \$102,200 from selling part of the herd.

The capital budgeting worksheet can be expanded to include all years of a particular project. For example, if the increase in herd size to 230 head is maintained over a ten year period and in that tenth year is reduced back to 140 head, all cash inflows and outflows for the ten year period should be included in the capital budgeting analysis.

The final step of the capital budgeting analysis is to input the cash outflows and inflows into the capital budgeting worksheet of FAS. The worksheet on the following page represents this analysis.

# TRM Capital Budgeting Analysis Worksheet

Time	
Relevant Cash Flows: Period	Outflows Inflows
Initial Investment/Cash Flow 0	122,000
Year I I	4,859
Year 2 2	4,859
Year 3 3	4,859
Year 4 4	4,859
Year 5 5	4,859 4,859 4,859 4,859 107,059

Required Rate of Retur		5.00%
nedanea mae a mem	L	3.007
Present Values (PV):	Outflows	Inflow
Year 0 - present time	122,000	(
Year I	0	4,62
Year 2	0	4,40
Year 3	0	4,19
Year 4	0	3,99
Year 5	<u>Q</u>	83,88
Total	<u>122.000</u>	101,11
PV Outflows		-122,00
Net Present Value		-20,88

Internal Rate-of-Return	(IRR) Method	
Required Rate of Retur	n [	0.79%
Present Values (PV):	Outflows	Inflows
Year 0 - present time	122,000	0
Year 1	0	4,821
Year 2	0	4,784
Year 3	0	4,746
Year 4	0	4,709
Year 5	0	102,954
Total	122,000	122,015
PV Outflows		-122,000
Net Present Value		<u>15</u>

### Interpretation of Capital Budgeting Model

- Net Present Value (NPV) Method using a required rate of return (set by management), if NPV is greater than zero (NPV of cash inflows exceed NPV of cash outflows), then the proposed incremental change yields a rate of return of at least the required rate of return. If NPV is less than zero, then the proposed incremental change provides a rate of return less than required.
- Internal Rate-of-Return (IRR) Method represents that rate of return which yields a NPV of zero. The IRR is the actual rate-of-return reflected in the project's incremental cash flows. The IRR is determined by repeatedly inputting a required rate of return in the input box until the net present value equals zero.

Management may choose to proceed with a proposed Ranch change even if the change does not meet their required rate-of-return, if the change is made for other nonfinancial reasons. The model illustrated here gives management a tool with which to quantify any proposed change at TRMR.

# **Business Plan**

The business plan for TRMR reviews the entire operation and includes the following sections.

- Executive Summary
- TRM Ranch and Its Overall Strategy
- Management Team
- Operations Plan
- Marketing
- Overall Schedule
- Financial Plan

The business plan should be used as a planning and management tool. The Ranch and its business environment are ever changing and for this reason, Ranch management should not view the business plan as ever "complete" or "final". To be of best use, the business plan needs to be continually changed and updated. In a sense, the business plan is always out-of-date, since by the time a revision is completed, portions of the business plan are dated and should be revised.

To be most useful for planning purposes, Ranch management needs to update the business plan at least once a year. In the future, Boone and Crockett Club may make significant changes at TRMR that will necessitate major changes to this business plan. Also, as time goes by, opportunities listed in the business plan may change and need to be revised and updated.

### **Executive Summary**

The Boone and Crockett Club (Club) is a leader in promoting wildlife conservation. They have sponsored many wildlife conservation programs over the last one hundred years, but none of these projects is more striking than Theodore Roosevelt Memorial Ranch (TRMR). The Club purchased TRMR in 1985, to among other things, demonstrate methods for sustaining family-owned and operated farms and ranches that provide good wildlife habitat. Many controversial issues surrounding wildlife conservation such as public access, fee hunting, and conservation practices impact TRMR and research on these issues is conducted at the Ranch. Much of the critical wildlife habitat along the Rocky Mountain Front (and elsewhere in the United States) is privately owned and this fact makes the Club's commitment to TRMR and its research projects even more important.

TRMR is a working cattle ranch, but it is also much more. The Club sponsors research projects conducted by graduate researchers from The University of Montana. Current research topics include environmental history, stream geomorphology, range response to grazing, and wildlife conservation and all of these consider ways to sustain a ranch that also conserves wildlife and habitat.

The management team at TRMR includes a Ranch manager, Club Sub-Committees, and the Club's Board of Directors. All of these parties are involved in managing the Ranch and setting strategic objectives that will help guide the Ranch into the future.

TRMR operates in the following product lines:

- 1. Cow/calf ranch operation
- 2. Public hunting, use, and recreation

- 3. Research
- 4. Education
- 5. Public service

Each of these product lines shares the following considerations and attributes:

- Costs must be allocated along product lines.
- The cow/calf operation is the only product line that in the past generated revenue.
   The other product lines offer opportunities for the Ranch to generate additional revenue.

The financial plan section reviews the current financial situation at the Ranch. TRMR presently operates at a loss and Boone and Crockett Foundation provides financial support to cover the loss.

### TRM Ranch and Its Overall Strategy

#### The Boone and Crockett Club

Theodore Roosevelt and other conservation minded individuals founded Boone and Crockett Club (Club) in 1887. The Club has the following stated objectives (Boone and Crockett Club, "Brief History").

- 1. To promote manly sport with the rifle.
- 2. To promote travel and exploration in the wild and unknown, or but partially known lands.
- 3. To work for the preservation of the wild animals of this country, especially big game, and so far as possible, to further legislation for that purpose, to assist in enforcing the existing laws, and to educate the American public in the importance of proper game preservations.
- 4. To promote inquiry into and to record observations on the habits and natural history of the various wild animals.
- 5. To bring about among the members the interchange of opinions and ideas on hunting, travel and exploration, on the various kinds of hunting rifles, and on the haunts and habits of game animals.

Since its inception, the Club has been a leader in promoting wildlife conservation. The Club's vision of the future and mission statement are consistent with their focus on wildlife conservation and go a long way in telling their story. They are both stated below (Boone and Crockett Club, "Trail Blazers").

### **VISION OF THE FUTURE**

We envision a future in which wildlife and wildlife habitat, in all their natural diversity, are maintained and enhanced;

A future in which hunting continues to be enjoyed under the rules of Fair Chase and ethical respect for nature;

A future in which all users of natural resources respect the rights of others in the spirit of sharing;

A future in which all people are committed to the principle that their use of resources must be sustainable for both themselves and future generations.

#### THE MISSION

"It is the policy of the Boone and Crockett Club to promote the guardianship and provident management of big game and associated wildlife in North America and to maintain the highest standards of fair chase and sportsmanship in all aspects of big game hunting, in order that this resource of all the people may survive and prosper in its natural habitats. Consistent with this objective, the Club supports the use and enjoyment of our wildlife heritage to the fullest extent by this and future generations of mankind."

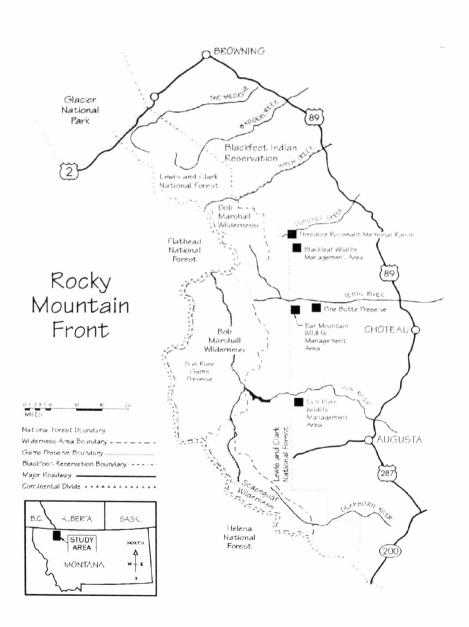
Two recent Club programs are a result of this emphasis. In 1987, the Club entered into an agreement with The University of Montana to establish the Boone and Crockett Research Program and Research Professorship. The University of Montana, Boone and Crockett Wildlife Conservation Program (the Program), established in 1993, is a result of this agreement (Boone and Crockett Club, "Wildlife Conservation Program Charter"). The overall thrust of the Program is outlined by the following portion of its mission statement.

The University of Montana Boone and Crockett Wildlife Conservation Program promotes, supports and conducts research, teaching and management demonstrations to further the conservation of wildlife and ecosystems to sustain healthy and productive relationships between people, land and natural resources.

A cornerstone of Boone and Crockett's Wildlife Conservation Program was the 1985 purchase of the 6,040 acre Theodore Roosevelt Memorial Ranch.

# **Theodore Roosevelt Memorial Ranch**

Theodore Roosevelt Memorial Ranch (TRMR) is located along the Rocky Mountain Front west of Dupuyer, Montana.



It is a working cattle ranch that also serves as the field station for Club sponsored research projects.

The Ranch is in the heart of critical winter range for mule deer and elk. It is thus a unique vehicle to demonstrate possible ways to conserve wildlife and habitat. One of the Club's stated research goals for TRMR as listed in their publication "Blazing New Trails for Conservation" includes:

"...demonstration and extension of methods for sustaining family-owned and family-operated farms and ranches that provide good wildlife habitat."

The Club recognizes that wildlife conservation in the future will involve sound and innovative business management as well as sound wildlife management. Improved financial management techniques, accurate accounting of costs and benefits and better marketing of products and services on TRMR will assist the Club in developing a working model to demonstrate the viability of wildlife management on farms and ranches. By using the Ranch to demonstrate this working model, the Club not only more effectively uses the Ranch, but also can encourage others to adopt similar programs.

The Ranch presently operates in the following product lines:

- 1. Cow/calf ranch operation
- 2. Public hunting, use, and recreation
- 3. Research
- 4. Education
- 5. Public service

Revenues and expenses result from the Ranch operation; the other product lines currently have only expenses associated with them. In the future, the Ranch has an opportunity to develop programs that can generate revenue in these product lines as well. In addition, the Ranch has opportunities to expand into other product lines that fall into the general category of educational and other recreational uses.

If the Club is to present to other private land owners the notion that wildlife can be successfully integrated into their operations, then these separate product lines must be evaluated as business ventures and at least in total must generate income and provide for a positive operating cash flow. Given the financial incentive of at least a break-even product line, land owners will be more likely to improve wildlife habitat on their property. This is a fundamental premise of the Club's wildlife conservation program.

TRMR offers Boone and Crockett Club a unique opportunity. On one hand, they are able to generate revenue from the existing cow/calf ranch operation, which is the same opportunity any other ranch operation has. The Ranch also can take advantage of wildlife block grants or fee hunting and other recreational opportunities to generate additional revenue, which again other ranches can do. On the other hand, they have an opportunity to generate revenues from sources that other ranches do not have. They can, for example, receive funding from Club members and other wildlife supporting organizations to support research, education, and public service programs on the Ranch.

### **Management Team**

Many people are involved in managing TRMR. A manager lives on the Ranch year around. The Club has a sub-committee which oversees the Ranch and deals with policy decisions and a sub-committee which oversees the research, education and public service lines of the Program. Lastly, the Club as a whole through its Board of Directors, provides input and makes decisions concerning Ranch operations and policy matters.

Bob Peebles is the resident manager of TRMR. He and his wife Kelly Peebles oversee day-to-day operations. Bob has spent his entire life living and working on ranches along the Rocky Mountain Front. His experience, ranching expertise, and biology background add greatly to the operating efficiency of the Ranch and the integration of wildlife. Both Bob and Kelly are involved in duties which range from tending cattle to performing administrative duties.

The TRM Ranch sub-committee is currently co-chaired by John Dixon and Tom Price. This committee is charged with developing the annual Ranch operating budget and also reports on various Ranch matters to the Board of Directors through the Conservation Committee. The sub-committee also assists in planning for potential changes at the Ranch.

The Professorship sub-committee is currently co-chaired by Boone and Crockett past president Stephen S. Adams and founding Boone and Crockett Professor Dr Hal Salwasser. This sub-committee oversees all aspects of the Program, including its linkage with TRMR. They also report to the Boone and Crockett Club Board of Directors through the Conservation Committee.

Dr. Dan Pletscher, chair of the Grants-In-Aid sub-committee assumed many of the duties of Dr. Salwasser, as Acting Boone and Crockett Professor, in the fall of 1995, after Salwasser's appointment as Regional Forester for the United States Forest Service Region 1. Both Dr. Salwasser and Dr. Pletscher work as faculty advisors to The University of Montana graduate students who work on the research projects at the Ranch. A search is currently underway for a new Boone and Crockett Professor who will also be director of the Boone and Crockett Wildlife Conservation Program. The position is expected to be filled by the end of 1996.

Members of the Club also provide input to the TRM Ranch Sub-Committee on issues concerning Ranch operations. The Board of Directors ultimately reviews and approves the budget and other matters relevant to Ranch operations.

Bill Sawyer is the Club's business manager. He assists Bob Peebles and the Ranch by performing various financial and accounting tasks. Mr. Sawyer also integrates financial information submitted by the Boone and Crockett Professor and Bob and Kelly Peebles into the accounting records of the Boone and Crockett Foundation.

### **Operations Plan**

TRMR is fundamentally a field research station built around a working cattle ranch.

It is composed of pastures, hay fields and lightly timbered ridges and creek bottoms

(Offerdahl 1989).

The Ranch has historically grazed up to 300 to 350 cow/calf pairs but presently has only 140. This number is an increase over recent years to help offset a weakness in the cattle market and to help support a larger Ranch operating budget. There are six bulls on the Ranch. In recent years, summer pasture was leased to adjacent property owners and an additional 230 cow/calf pairs were grazed on the Ranch during the period June through September. This number varies slightly each year depending upon weather and grass conditions, expected hay production and anticipated hay needs over the winter (Peebles and Peebles 1995).

The Ranch currently contracts haying to eliminate associated machinery and maintenance costs. The Ranch retains forty percent of gross hay production and this generally meets the needs required for current cattle numbers. Supplemental feeding, using range cake - a protein supplement, is generally done before and after calving. The calving season generally starts in mid-to late February and continues through April. The calves, grazed or range fed over the summer, are sold in late October and are not kept over the winter (Peebles and Peebles 1995).

Bob Peebles and his family handle most of the duties and labor required year-around on the Ranch. No additional permanent hired help is needed to operate the Ranch at its present operating level (Peebles and Peebles 1995).

### Marketing

Marketing is the sum total of all efforts to attract and keep satisfied customers. Marketing provides an opportunity by which the Ranch can generate revenue from each of its product lines. Marketing concerns itself with a particular product or service, how to effectively promote it, how to fairly price it, and how to distribute the product or deliver the service (Zikmund and D'Amico 1986).

This section discusses marketing considerations for each of the separate product lines on the Ranch, including a discussion of the present impact that each product line has on Ranch operations. In a later section, there is a discussion of other possible product lines or programs that could be added to the Ranch. The listing of these additional lines or programs is not all inclusive and is not a suggestion that any of them necessarily be added to the Ranch. They are included only to provide ideas for possible new programs at the Ranch. The first product line on the Ranch is the cow/calf operation which is part of the beef cattle market.

#### The Beef Cattle Market

The Ranch cow/calf operation produces calves each year that are born in February and range fed over the spring, summer and early fall. The calves are sold each fall to contractors who buy for markets located in the Midwest and this revenue comprises the major portion of yearly Ranch revenue. This revenue cycle is dependent upon the beef cattle market.

The beef cattle market is a commodity based industry in which product prices are determined by supply and demand of beef cattle at both the National and international levels. Major markets are located in the Midwest United States and most often, there is little if anything an individual rancher can do to increase the price received in this market. Ranchers are generally price takers (they sell their cattle at market prices), although some ranchers attempt to vary the regional location of calf delivery and the timing of calf sales each year in hopes of realizing a greater profit on sales. Cattle quality, weights, as well as breeding can all have some impact on the price received (Peebles and Peebles 1995).

Opportunities might exist to expand into specialty markets, such as organically grown or specially fed cattle, or the Ranch can change the breed of cattle to one that produces a higher calf sale price in an attempt to raise additional revenue (Peebles and Peebles 1995). The Ranch might also look into the prospect of raising and marketing other animals such as buffalo, ostriches or llamas.

#### Public Hunting, Use, and Recreation

The second product line is public hunting, use, and recreation. TRMR is located in a spectacular setting along the Rocky Mountain Front. There are many recreational opportunities and the Ranch receives many requests for public access to take advantage of them. Most of the present recreational uses of the Ranch concern wildlife. This section will first review current wildlife related recreational uses of the Ranch.

#### Wildlife

Wildlife living along the Rocky Mountain Front, especially elk and deer, provide opportunities for the Ranch to more fully integrate wildlife into the Ranch operation, enhance wildlife habitat, and generate revenue.

Surveys conducted in Montana and Wyoming indicate the primary reason that ranch and farm owners are interested in managing wildlife resources on their property or starting a wildlife recreational business is to provide supplemental income. At least in these surveys, the prospect of additional income is a major consideration in possible efforts to enhance wildlife habitat (Lacey et al. 1988, Wunderlich, Jacobs, and Taylor 1990).

There are many questions concerning how to compensate private landowners for the lost revenue or lost economic resources caused either directly by wildlife or as a result of enhancing or providing additional wildlife habitat. Possible ways to reimburse the landowner include the following (Lacy et al. 1988).

- 1. Indirect assistance through the use of tax reductions or concessions.
- Through awarding hunting permits to landowners that can be sold or disposed of at their discretion.

A major issue concerning possible reimbursement for wildlife on the Ranch is that the wildlife are migratory and move freely to and from the Ranch, adjacent private property and state and federal lands. The question is, who gets reimbursed and in what amounts? Any possible reimbursement plan for damaged crops, hay or forage, concerns more than just TRMR property. Other private landowners are impacted as well. Who's property is most adversely impacted by the wildlife? How would a lump sum reimbursement be split up between various landowners (Wunderlich, Jacobs, and Taylor 1990)?

It is difficult to establish market values for wildlife or wildlife related recreational products or services, yet there is a value attached to wildlife which must be considered in the overall economic analysis of the Ranch. Estimating the market value of wildlife for an

activity such as hunting can be done by referring to fees charged for comparable hunting opportunities. Values for most other wildlife or recreational activities are more difficult to determine since in most cases, there are no established market values. Even though it is difficult to determine a value in many cases, a market value must still be considered in order to perform a complete analysis of the economic situation at the Ranch (Lacey et al. 1988). How to capture these market values and actually produce income for the Ranch is another matter.

At the present time, the Ranch does not receive any revenue for wildlife's presence and the Ranch actually suffers a financial operating loss. Wildlife consume feed and forage otherwise available for cattle. The Ranch could suffer a financial loss if calf weights are lowered because of less feed or if fewer than the optimum number of cow/calf units are carried. How then can the Ranch generate revenue from wildlife?

One way is to take advantage of a new cooperative program with Montana Department of Fish, Wildlife, and Parks.

### **Hunting Enhancement Program**

In 1995, Montana established the Hunting Enhancement Program (HEP), to provide financial assistance to landowners who allow public hunting access. Compensation is intended to offset costs such as maintenance, insurance, and fire protection that a landowner incurs to provide public access. The assistance also compensates the owner for time spent dealing with hunters.

Landowners who do not charge for hunting access are eligible to enroll in HEP. The program provides more benefits to those landowners who place the least amount of

restrictions on public access. The maximum amount of compensation per year for each enrollee is \$8,000. The landowner is paid following the close of hunting season and the amount is based on a base fee of \$500 plus up to \$13 per hunter day. The landowner can either maintain hunter use documents themselves or have Montana Department of Fish, Wildlife, and Parks personnel do it for them for a reduced fee. If a landowner joins this program, they can no longer charge a fee for hunting or trespass (Baumeister, "Using Incentives" 1996). An alternative way to generate revenue is from fee hunting.

#### Fee Hunting

Fee hunting is an arrangement where a hunter or hunter's agent pays money or other compensation to a landowner for the right to hunt. The fee is technically a trespass or access fee (Schutt 1990).

In the case of fee hunting, the landowner does not own the game animals which inhabit the land, but they do own the exclusive right to grant access to hunt them. The issue of fee hunting is controversial because hunters typically believe that wildlife is a public resource and that their use of the resource is adequately paid for through hunting licenses. They believe landowners should provide free access to hunt. The landowner on the other hand, does not receive any sort of compensation for providing habitat for wildlife and often feels justified in charging a fee for hunter access (Lacey et al. 1988). Fee hunting is a fairly new issue in Montana and it continues to generate a great deal of discussion and controversy.

If TRMR attempted to more fully integrate wildlife and take steps to establish a fee hunting program, they would have to first analyze the impact such decisions might have on the cow/calf operation.

Attempts have been made to develop models that illustrate and quantify the tradeoffs required in analyzing interactions between livestock grazing and wildlife habitat. One such study yielded the following observations (Bernardo, Boudreau, and Bidwell 1994).

- Livestock enterprises and wildlife habitat considerations to a great extent compete
  with one another. In some instances the same ranch management practices benefit
  both livestock and wildlife but in many other cases one benefits from a certain
  management technique and the other suffers.
- 2. It is difficult to gauge or quantify the economic impact of wildlife habitat improvements and for this reason, little research has been done on the economic tradeoffs between livestock and lease-hunting operations.
- 3. Even with limitations on the ability to quantify economic tradeoffs between livestock grazing and wildlife habitat improvements, the study showed that opportunities do exist to improve wildlife habitat that have little or no financial effect (either positive or negative) on ranch livestock operations.
- 4 The model provides a possible framework for reconciling differences and economic tradeoffs between livestock operations and wildlife habitat that can be adapted to other ranch operations.

In any event, the Ranch needs to consider possible impacts to present programs (especially the cow/calf operation) if changes are proposed in habitat management, before

extensive changes are made or any program changes are made to the operating composition of the Ranch.

Up to 1996, the Ranch did not charge a fee for public hunting access. Each year, the Ranch provides on a reservation basis, public access to hunt. For each of the 1993 and 1994 seasons, approximately 200 people hunted almost 260 days. Ranch harvest quotas are set in advance each year by the Ranch manager in cooperation with Montana Department of Fish, Wildlife, and Parks Department (Peebles and Peebles 1995).

Adding a fee hunting program on the Ranch, although controversial, would provide revenue for the Ranch. One other way a ranch can benefit from wildlife is from conservation easements.

#### **Conservation Easements**

A conservation easement is a mechanism by which property development rights are transferred from a landowner to a conservation organization. It is a legally-binding agreement that provides consideration in the form of a federal income tax charitable contribution deduction in return for placing restrictions on future property development (Baumeister, "Conservation Easements" 1996).

A conservation easement would not provide TRMR and Boone and Crockett Club with benefits, since the Club is a tax-exempt organization and cannot use the tax deduction, but conservation easements are possible ways for other farms and ranches to obtain financial benefits.

#### Other Recreational Uses of TRM Ranch

Other recreational opportunities on the Ranch consist of various activities that utilize the Ranch location, property, and facilities to attract tourists or visitors. In general, farm and ranch recreation provides an opportunity for people to experience outdoor or "western" activities.

Research indicates that visitors or guests attempt to meet various needs or desires while engaging in farm and ranch recreational activities. These desires are listed below (U.S. Small Business Administration et al. 1995).

- Experience the western lifestyle.
- Experience a little "real" adventure.
- Experience something novel on the land.
- Experience times with people who are from different cultural backgrounds.
- Experience educational and nature oriented vacations or outings.
- Experience quality vacation time with friends and family
- Spend time outdoors in the west.
- Return to agrarian roots.
- Reminisce about time spent on a relative's farm or ranch.
- Reconnect with the land.

A farm or ranch operation can supplement their income by developing programs that feature some of the activities and programs discussed below. Not all of the activities may be feasible or desirable for TRMR at the present time, but at some point in the future they might be. Some of the listed activities were discussed in the 1995 Farm and Ranch

Recreation Resource Directory (U.S. Small Business Administration et al. 1995). The activities are listed under the three separate headings of wildlife, ranch activities, and other opportunities.

#### Wildlife

# Fishing

Streams flowing through the Ranch presently offer fair fishing for brook, rainbow, and cutthroat trout. If stream conditions and fish habitat improve, there might be an opportunity to offer quality stream fishing for a fee. There are presently no suitable lakes or ponds on the Ranch that would support lake fishing. Dredging or stream diversions could possibly create lakes that could be stocked and provide fee fishing.

# Wildlife Viewing

People from many distinct disciplines are interested in viewing and photographing wildlife. Viewing excursions could take advantage of the variety of wildlife that live on the Ranch. A variety of options could be offered such as day trips, multiple day or even weekly excursions.

# • Wildlife Photography

A workshop conducted by and for professional and amateur wildlife photographers could again utilize the variety of wildlife present on the Ranch. Workshops conducted during different times of the year could feature the unique seasonal wildlife as well as offer differing backdrops and scenes.

#### **Ranch Activities**

#### • Farm and Ranch Chores

The traditional western lifestyle is interesting to many people. A program that displays the variety of tasks performed on a working cattle ranch could be educational as well as fun.

# • Horseback Riding

Horseback riding around the Ranch property as well as into adjacent national forest lands is appealing to some people. Riding could be an activity used in conjunction with other recreational activities as well.

# • Cattle Drives and Branding

Visitors could help herd cattle and observe yearly branding activities. A discussion and review of the beef cattle industry could be educational to visitors and guests.

#### Having

The Ranch could put up its own hay and this activity could be demonstrated and guests could even help in the process. A program which reviews grass varieties, the growing process and harvest techniques would be informative and educational.

# • Cowboy History

People are interested in learning more about the cowboy culture. A workshop or program could be developed that features such activities as storytelling, singing,

poetry, art, clothing, and equipment. The rich heritage of the American West could be brought to life in such a program.

# Chuck Wagon Meals

There is nothing like eating a meal in the great outdoors. Meals prepared outside using a western or chuck wagon theme could be a fun activity for any groups or guests visiting the Ranch. After meal singing by "Cowboy Bob" Peebles around the campfire could be part of this activity.

# **Other Opportunities**

# • Film Production Site

A farm and ranch operation can be utilized as a site for movies or other filming opportunities. Feature films, documentaries and educational movies often use ranch locations such as TRM Ranch for filming.

#### Skiing

Cross country skiing during winter months would offer visitors some of the most breathtaking views of the ranch and the surrounding mountains available during any time of the year (need to consider impacts on wintering elk and deer).

The final three product lines served by TRMR are research, education, and public service.

# Research, Education, and Public Service

Research, education, and public service aspects of TRMR are major reasons Boone and Crockett Club purchased the Ranch. The Ranch provides a working model to investigate and demonstrate the interrelationships of wildlife conservation with private and

public property. The Club states the following, concerning their goals in wildlife conservation (Boone and Crockett Club," Blazing New Trails").

#### CONSERVATION LEADERSHIP FOR THE CLUB

We envision a future in which the Boone and Crockett Club is an internationally recognized conservation leader.

A future in which the Club is North America's leader in big game records keeping as a conservation tool.

A future in which the Club is an acknowledged national leader in research, education, and demonstration of sustainable conservation practices.

A future in which Club members are respected and commended for their individual and collective contributions to conservation.

A future in which Club activities are highly focused and effective, and as a result, natural resources sharing, wildlife populations, habitats and recreational hunting opportunities continue to improve into the Twenty-First Century.

With this conservation vision in mind, the Club has made a serious commitment to research, education and public service at TRMR. The next sections discuss present programs at TRMR for each of the three product lines.

#### Research

TRM Ranch is the principal field station for Club sponsored research projects. These projects are coordinated through The University of Montana by the Boone and Crockett Professor and are headed by designated faculty advisors. Graduate students perform the research under their guidance.

There are eight separate research projects funded for the fiscal year beginning July 1, 1995 and they are listed as follows (Boone and Crockett Club, "Budget"). TRMR refers to Theodore Roosevelt Memorial Ranch and RMF refers to Rocky Mountain Front.

- Private Lands/Public Wildlife not at TRMR (Kaush Arha).
- Wildlife Habitat Relationships TRMR/RMF (Thomas Baumeister).
- Wildlife Habitat Relationships TRMR/RMF (Scott Mills).
- T & E Conservation Private Lands not at TRMR (Greg Shildwachter).
- Environmental History TRMR/RMF (Daniel Keller).
- TRMR Range Response Grazing (Kris Hurlburt).
- TRMR Stream Geomorphology (Jason Moeckel).
- TRMR Business Plan and Accounting System (Tim Olson).

The Club anticipates funding future research projects at the conclusion of these specific projects along the following general themes (Boone and Crockett Club, "Blazing New Trails").

- People, Land, and Resources: Factors that Shape Changing Relationships.
- Wildlife Values: Economics and Incentives for Conservation.
- Wildlife Habitat Relationships: Tools for Planning and Management.
- Ranch and Farm Management for Shared-use Benefits.
- Conflict Management.
- Long-term Basic Research and Monitoring, which will likely focus on:
  - 1. Habitat Dynamics and Driving Forces of Ecosystem Change.
  - 2. Wildlife Population Dynamics: Internal and External Forces of Change.

3. Wildlife Behavior and Movements in Response to Human Land Uses and Activities.

The Boone and Crockett Foundation provides most of the funding for these research projects; other partners provide the rest. Decisions on specific research projects are made yearly on the basis of project priority and the relationship of each project to other ongoing research projects.

Other specific research expansion opportunities include:

- Cultural resources of Rocky Mountain Front.
- Paleontological record of TRM Ranch.
- Fisheries enhancement at TRM Ranch.
- Noxious weed management options.
- Fire in Rocky Mountain Front ecosystem dynamics.
- Niche marketing of domestic stock operations
- Grazing alternatives for wildlife enhancement.

# **Education**

Education programs at TRMR range from workshops for land owners to field trips for various groups (Boone and Crockett Club, "Blazing New Trails"). Specific education related forums are developed from time to time and often revolve around on-going projects at the Ranch including those conducted by graduate research students. The following recently conducted education projects are indications of the potential education vehicles that can be developed at the Ranch (Flowers 1995).

- "Crown of the Continent An Ecosystem in Transition Is Sustainability
   Possible?" A workshop planned for September 1995, but postponed.
- History and Archaeology workshop conducted in August 1995.
- "Wilderness and Land Ethics Awareness" workshops conducted in July 1995 and
   1996.
- Education program modules developed by Lisa Flowers on these topics:
  - 1. Land Forms and Geological History of the Rocky Mountain Front.
  - 2. Vegetative Studies of TRM Ranch Wildlife Habitats.
  - 3. Grizzly Bear Ecology Along The Rocky Mountain Front.
  - 4. The Rocky Mountain Front, Its Components, Management and Future.
- Special section for the Falcon Magazine on grizzly bears written by Lisa Flowers.
- Various school field trips during 1995.
- TRM Ranch Watchable Wildlife Trail. The recently completed Watchable
  Wildlife Nature Trail runs through the heart of the Ranch and provides stunning
  views of the Rocky Mountain Front. The Club used local volunteer and youth
  organizations to assist in trail construction (Peebles 1995).

# **Public Service**

The education programs listed above also contribute to many of the public service goals for the Ranch. Here are some additional public service programs that are related to research efforts at the Ranch (Boone and Crockett Club, "Blazing New Trails").

 Old North Trail at the TRM Ranch - a co-operative project between Boone and Crockett Club, U.S. Forest Service and the Blackfeet Nation Cultural Program which could catalog and review Blackfeet sites on the Ranch and help provide an understanding of how the Blackfeet people lived in the area.

- Consultations with groups such as the U.S. Forest Service, Tennessee Valley
  Authority, Western Governor's Association, Colorado School of Law, OregonWashington Bureau of Land Management, Western Forestry Association and
  British Columbia Ministry of Environment on various wildlife conservation and
  ecosystem management topics. These are University of Montana, Boone and
  Crockett Wildlife Conservation Program projects and are not specifically related
  to TRM Ranch.
- Public lectures at the Conservation Summit Center in Missoula, Montana. These lectures feature well known experts that discuss many topics concerning wildlife conservation. Again, these are Wildlife Conservation Program projects, not specifically related to TRM Ranch.
- High Country Institute for Environmental Journalism conducted at TRM in 1995.
   The program was sponsored by the Journalism Department at The University of Montana.
- Field trips from public school districts.

The Boone and Crockett Club is excited about the many different projects they have sponsored at the Ranch. TRMR is a unique place and offers the backdrop for many more innovative and exciting research, education and public services projects in the future. A key element for developing new projects is the field station planned for the Ranch.

# **Field Station**

The Boone and Crockett Club plans to build a field research and education station at the Ranch to support many of the aforementioned activities. The modular structure will feature the following (Boone and Crockett Club, "Blazing New Trails" and Chalfant 1996):

- Housing for researchers dormitory style for short-term use and apartment style for long-term use.
- Housing for various educational groups.
- A conference and meeting area for up to 50 people.
- A library and study area.
- Kitchen and banquet facilities.
- Research facilities, including a wet lab, computer lab, storage, and office space.

The field station will provide facilities to further enhance many different uses of the Ranch, but will especially assist the research, education and public service goals. The field station will provide opportunities to host meetings and generate revenue. The combination of the Ranch setting and use of the field station as a convention center gives TRMR the opportunity to sponsor even more research, educational, and public service programs in the future. Specific program opportunities are listed below.

#### Research

One potential research related program that the Ranch could add would be to develop and sponsor workshops or classes which provide hands-on research activities that make use of research projects on the Ranch. Interested educators could take advantage of current research and also could help develop other viable research projects. This activity could help further club goals for research as well as education and public service.

#### Education

The Ranch has an opportunity to possibly add some education programs that could generate additional revenue. These programs are listed below.

#### • Educational Workshops

The Ranch could offer educational workshops for groups such as educators, administrators, researchers or politicians. Topics can be tailored and designed for specific occasions and can utilize and feature graduate research projects being conducted on the Ranch.

#### Professional Conferences

Professional groups such as doctors, attorneys, certified public accountants and engineers attend continuing education conferences. A conference which features some of the various recreational activities present on the Ranch may be of interest to these groups.

#### Farm and Ranch Recreation

A workshop that reviews and demonstrates farm and ranch recreational opportunities to other farm and ranch operations, could again feature many of the recreational activities discussed in the marketing section. A hands-on or how to session which discusses how to investigate, develop, manage, and market farm and ranch recreational activities would be an integral part of this workshop.

### • Farm and Ranch Management

Workshops or conferences that discuss issues concerning farm and ranch management could be conducted on the Ranch. One of the keys to preserving the family-owned farm and ranch will be a continuing dialogue on ways to more effectively and efficiently manage these operations. New and innovative ways to run the ranch operation could be discussed at these gatherings.

#### **Public Service**

One way the Ranch could increase public access would be to expand the Watchable Wildlife Trail and develop a network of other trails which provide easier access for groups touring the Ranch. Trails which provide access for handicapped visitors would open the Ranch to an even more diverse group of visitors.

# **Overall Schedule**

Here are some of the key dates and times related to past, present and future events that have transpired at TRMR.

- The Boone and Crockett Club is formed in 1887.
- The Boone and Crockett Foundation purchased the Triple Divide Ranch in 1985
   and renamed it Theodore Roosevelt Memorial Ranch (TRMR).
- The charter document establishing The University of Montana Boone and Crockett Wildlife Conservation Program was approved by The Boone and Crockett Club in May 1987.
- Bob Peebles appointed as TRM Ranch manager in 1989
- Hal Salwasser appointed as The University of Montana Boone and Crockett Professor and Director of the Theodore Roosevelt Wildlife Research Station in September 1992.
- First funding provided by Boone and Crockett Foundation for graduate research work at The University of Montana in 1993.
- Initial work on the nature trail at the Ranch started in 1995

# **Financial Plan**

### **Overview**

The Ranch presently operates at a loss. Operating expenses have exceeded revenues in each of the last three fiscal years and are expected to do the same during the next fiscal year beginning July 1, 1996. Many of the expenses at the Ranch are fixed, meaning they will remain the same regardless of the amount of revenue generated. TRMR has an opportunity to substantially improve its operating results in future years to the extent it takes advantage of the cost structure presently in place. One immediate way to do this is to increase the size of the cattle herd. Many of the Ranch operating costs will not go up if herd size is increased. If TRMR is able to increase the size of its herd and realize additional calf sales revenue that exceed additional costs associated with the increase (such as feed, supplies, etc.), then the operating loss will decline. The management accounting chapter illustrated this by reviewing an increase in herd size to 230 cow/calves.

#### **Income and Cash Flow Statements**

The financial plan includes actual income statements for fiscal years ended June 30, 1994 and June 30, 1995. The Ranch reported a loss in each of these years of \$63,600 and \$85,387 respectively. TRMR has a loss of \$60,846 for the ten month period of the current fiscal year which will end June 30, 1996. The loss for next fiscal year ending June 30, 1997 is budgeted at \$72,738. The only adjustment reflected to reach net cash loss was for depreciation expense. There is no debt on TRMR, so the income statements do not include interest expense and the cash flow statement reconciliation does not reflect debt service principal payments.

TRMR is owed by Boone and Crockett Foundation and the Foundation provides funds to cover the current operating deficit.

# **Balance Sheets**

Balance sheets for years ending June 30, 1995 and 1996 are included in the financial plan. TRMR does not have a separate formal set of books and records. Ranch assets, liabilities, revenues and expenses are included in Foundation accounts and included in their annual audited financial statements. The balance sheets and income statements included in this financial plan were developed using information extracted from Foundation financial statements.

Cost of Ranch assets are \$2,164,816 and \$2,154,830 respectively for the two years. As stated previously, the Foundation owes no long-term debt on TRM Ranch. The equity (fund balance) listed on the balance sheets is included in total equity (fund balance) reported for the Foundation.

The financial plan includes the following two schedules:

- Income and cash flow statements for years ending June 30, 1994 and 1995, for the ten month period July 1, 1995 through April 30, 1996 and for years ending June 30, 1996 and 1997.
- 2. Balance sheets as of June 30, 1995 and 1996.

# Income and Cash Flow Statements Actual for Years Ending 6/30/94 and 6/30/95 and Through 4/30/96 Budgeted for Years Ending 6/30/96 and 6/30/97

Ten Months						
	Actual	Actual	Through	Budgeted	Budgeted	
	6/30/94	6/30/95	<u>4/30/96</u>	<u>6/30/96</u>	6/30/97	
Revenue			<del></del>			
Calf Sales	54,550	49,113	53,961	64,050	40,020	
Dry Cow Sales	3,303	4,248	4,296	4,400	4,020	
Hay Sales	0	0	0	0	0	
Pasture Lease	6,872	9,946	8,975	11,111	11,111	
Boone & Crockett Club Reimb.	0	0	0	0	9,333	
Boone & Crockett Res. Ctr. Reimb.	<u>0</u>	<u>0</u>	<u>0</u>	6,534	9,604	
Total Revenue	64,725	63,307	67,232	86,095	74,088	
Cost of Sales	6,211	3,840	0	0	804	
Gross Profit	<u>58,514</u>	<u>59,467</u>	<u>67,232</u>	<u>86,095</u>	<u>73,284</u>	
Expenses						
Cattle Permit USFS/Grazing Fee	408	332	50	400	420	
Dues/Subscriptions	0	0	70	100	103	
Fencing Material/Ranch Supplies	4,953	4,617	10,733	1,125	1,153	
Fertilizer/Hay	4,620	8,663	50	4,500	5,880	
Freight/Calf Shipping	25	1,831	339	400	400	
Fuel - Gas/Motor Oil	5,665	7,036	8,322	4,925	6,300	
Herbicide	0	0	0	750	775	
Insurance	4,987	6,246	5,799	5,450	6,577	
Mineral/Salt/Feed	0	0	4,807	1,970	2,045	
Office Supplies	511	570	196	420	431	
Postal Expenses	351	408	316	360	369	
Real & Personal Prop. Taxes	7,340	5,230	4,830	6,170	6,089	
Repair & Maintenance	1,075	9,386	10,657	5,600	10,130	
Travel & Entertainment	1,969	2,828	1,596	1,950	1,978	
Utilities	6,324	5,323	3,639	6,515	6,868	
Telephone	1,349	1,223	1,111	1,320	1,523	
Veterinarian/Shoeing	2,449	2,081	2,192	3,125	3,185	
Wages/Benefits - Foreman	30,496	35,395	27,932	38,232	35,018	
Wages/Benefits - Administrator	12,144	14,460	12,255	13,200	15,688	
Wages - Ranch Hands	1,272	975	768	1,500	2,540	
Depreciation	<u>36,176</u>	<u>38,250</u>	<u>32,416</u>	38,644	<u>38,550</u>	
Total Ranch Expenses	<u>122,114</u>	<u>144,854</u>	<u>128,078</u>	<u>136,656</u>	146,022	
Net Profit/(Loss)	<u>-63,600</u>	<u>-85,387</u>	<u>-60,846</u>	<u>-50,561</u>	<u>-72,738</u>	
Add Back Non-Cash Item:						
Depreciation	36,176	38,250	32,416	38,644	38,550	
Net Cash Profit/(Loss)	-27.424	<u>-47.137</u>	<u>-28.430</u>	<u>-11.917</u>	<u>-34.188</u>	

Balance Sheets
Actual as of 6/30/95
Projected as of 6/30/96

1 Tojected as of 0/30/90	Actual as of	Projected at
	6/30/95	6/30/96
Current Assets	<u>0/00//5</u>	<u>0/20/70</u>
Cash in Bank	4,961	2,000
Sun River Telephone Co-op Shares	110	110
Three River Telephone Co-op Shares	<u>2,846</u>	<u>2,846</u>
<b>Total Current Assets</b>	7,917	4,956
Long-Term Assets		
Land	1,600,623	1,600,623
Land Improvements	9,346	9,346
Main House	105,000	105,000
Foreman's House	121,383	122,383
Guest House	32,000	32,000
Shop Building	31,449	31,449
Furniture and Equipment	17,097	18,210
Machinery and Equipment	64,006	64,006
Vehicles	30,400	30,400
Schriver Roosevelt Bronze	25,000	25,000
Livestock	128,512	116,413
Total Long-Term Assets	<u>2,164,816</u>	2,154,830
Less: Accumulated Depreciation	<u>-195,268</u>	-233,722
Net Long-Term Assets	1,969,548	1,921,108
Total Assets	1,977,465	1.926.064
Current Liabilities		
Accrued Property Taxes	2,674	1,834
Equity (Fund Balance)		
Beginning Balance	2,060,178	1,974,791
Income (Loss) For Current Year	-85,387	-50,561
Total Equity	<u>1,974,791</u>	<u>1,924,230</u>
Total Liabilities and Equity	1,977,465	1,926,064

# **Discussion and Recommendations**

The Boone and Crockett Club has an opportunity to demonstrate to other farms and ranches possible ways to improve their operating structure and integrate wildlife conservation practices into their operations. The Club can assume even more of a leadership role in the future by promoting ways that family-owned farms and ranches can be more efficiently operated. But this will not be well received under the current financial situation at TRMR.

This thesis provides TRMR with two tools to improve Ranch operations and to help demonstrate to others, ways to more fully integrate wildlife into their operations. The first tool is a management accounting system that provides a framework within which to more accurately allocate and analyze revenues, expenses, and costs associated with the Ranch. Ranch management needs to especially integrate concepts related to cost allocations into their planning and budgeting process. A logical and accurate way to allocate Ranch expenses along product lines is critical if management expects to properly balance the varied goals of TRMR. Proper allocation of expenses is especially important when management looks at possible changes to programs at TRMR.

The management accounting system includes a financial analysis spreadsheet template which management can use to consolidate and analyze various operating scenarios at TRMR. The template can be easily modified and expanded, so management should view it as a working tool that can change and evolve as need be. The template should not be

viewed as "complete," since the financial situation at the Ranch will change over time. To be most useful, the template must evolve and change at the same time.

The second tool is a business plan. TRMR now has a comprehensive business plan which covers many of the major aspects of Ranch operations. Ranch management should use the plan to help guide them as they make changes at the Ranch. The business plan should also not be viewed as "complete." It should be updated at least every year (preferably every six months) to reflect changes at the Ranch. Ideally, the business plan should be a guiding document that assists management in developing the annual operating budget and also be an important document that aids in strategic planning changes at TRMR.

The Boone and Crockett Club needs to ensure that they get the most they can out of TRMR. Information and the working tools contained in this thesis provide the Club with ways to help ensure they maximize use of the Ranch.

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