

Vermont Department of Forests, Parks and Recreation

"Receding Resources in A Time of Need"

**Northeast Natural Resource Center of the National Wildlife Federation
and the
Vermont Natural Resources Council**

**Montpelier, Vermont
November, 1995**



The Northeast Natural Resource Center (NNRC) based in Montpelier, Vermont is one of nine regional resource centers and offices of the National Wildlife Federation. NWF is a non-profit conservation and education organization with national headquarters in Washington D.C. Founded in 1936, the Federation, its members and supporters, and a national network of affiliated organizations, works to educate citizens about the need for sustainable use and proper management of our natural resources. NWF's NNRC has three overall purposes: to represent NWF on a local and regional basis among New England states and New York; to work with state affiliate organizations across the region; and, to conduct research, education, and advocacy programs on conservation issues of regional significance in the Northeast.

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The Vermont Natural Resources Council is a non-profit environmental organization founded in 1963 to promote the wise use of Vermont's natural resources. VNRC does research, advocacy and education work on a range of issues including land use, forestry, water resources, energy conservation, waste, and growth management.

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Preface

In the summer of 1995 the Northeast Natural Resources Center of the National Wildlife Federation, (NWF) and the Vermont Natural Resources Council, (VNRC) conducted an analysis of the budget and programs of the Vermont Department of Forests, Parks and Recreation (FP&R). The study resulted from concern about the potential effects of significant federal and state budget cuts affecting FP&R and their consequences to the lands and people of Vermont. At a time when citizens increasingly scrutinize how their tax dollars are spent, this study also sought to analyze the historical and current justification for FP&R's mission and programs, and their effectiveness in generating broad public benefits.

This analysis relied on interviews with FP&R personnel and examinations of historical and current documents on departmental activities as well as a brief survey of literature on resource conservation and public land use. The research was supplemented by discussions with key FP&R stakeholders in order to develop a picture of the public value maintained and generated by the FP&R.

Three key questions guided this analysis:

- a) How does FP&R create public value?
- b) Have FP&R's goals changed concurrent the changing needs (and expectations) of the state?
- c) Does FP&R have sufficient means to accomplish its ends?

Findings

Introduction

The Vermont Department of Forests, Parks and Recreation has a broad mandate to encourage the beneficial interaction of people and nature, and to lead in the sustainable management of the state's forest resources. To do this, FP&R must serve as an enlightened steward of forest and park lands held in the name of all Vermonters. Overall, this study finds that in the face of fiscal constraints, and given the proven rationale and strong support for public land ownership,

FP&R has responded by leveraging scarce resources to fulfill their mandate. Unfortunately, the State of Vermont has not provided adequate support for a department that has quietly succeeded in doing more with less.

FP&R Mission: To improve people's relationship with the natural and recreational resources of Vermont and to provide leadership in the management of these resources so that they are made available for the health, enjoyment, and economic well-being of this and future generations.

The Green Mountain state benefits economically and environmentally from the natural beauty and diversity of flora and fauna on public lands. Aside from their relatively limited holdings, FP&R provides a variety of technical assistance and resource management expertise to private non-industrial forest landowners. In addition, the forest products, travel and tourism, and real estate industries gain much indirect value from the work of FP&R. Recent evidence has substantiated Vermonter's intuitive association of environmental and economic health¹.

This study finds that FP&R duties and programs have an important role in contributing to sustainable development goals in Vermont.

Forests managed by FP&R provide reservoirs of unfragmented and biologically diverse habitat for wildlife. State lands complement the Green Mountain National Forest in linking corridors of protected habitat. Although forest lands have been typically

viewed as a source of commodities, they are increasingly understood as rich ecosystems producing an array of ecological and recreational services. FP&R has evolved with changing science and values, albeit not as far as some would like. However, the cost to Vermont has been relatively cheap—*less than \$5 dollars per person or less than one-half of 1% of the state General Fund.*

Based on positive indirect economic effects and FP&R's direct provision of public benefits, Vermont has an obligation to provide funding adequate to fulfill FP&R's mission. At a time when the Northern Forest has so much to offer the state and generations of Vermonters to come, it is essential that policy makers commit to rejuvenating, not crippling, this necessary Department.

¹ One example among such studies is the Green and Gold report: "...The states that do the most to protect their natural resources also wind up with the strongest economies and best jobs for their citizens." Bob Hall, "Green and Gold," *Southern Exposure*, Institute for Southern Studies, Fall 1994.

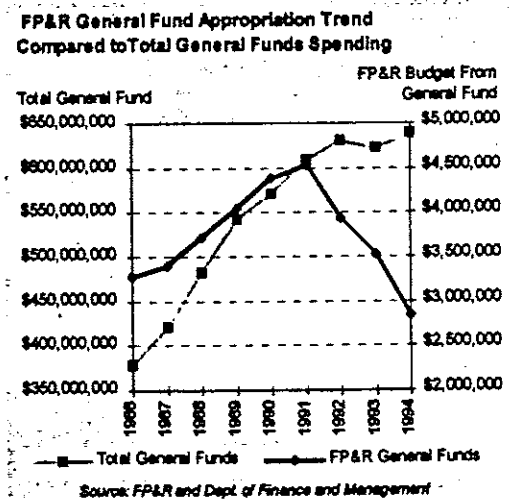
FP&R in Meeting Vermont's Needs

→ A leader in resource management

Rather than operating only on premise of land ownership for commodity outputs, FP&R has strived to be a leader in natural resource management and stewardship. The historic recovery of forest lands as a source of economic and environmental value is one example of FPR's long-term policy in forest restoration rather than simply relying on regeneration through neglect. FP&R now operates 47 State Parks and manages 38 State Forests on over 182,800 acres; performs long-range planning for over 285,000 acres of state lands; and is involved in a variety of programs with private forest landowners to encourage responsible stewardship of the 78% of Vermont's land which is forested.

→ Ever-widening gaps between funding and duties

FP&R's budget has recently trended downwards while its responsibilities have increased. Since 1986, Vermont General Fund support has *decreased by 32%*. Acreage under FP&R direct land management (approximately 290,000 Acres) has grown by roughly 1.5% per year over the last ten years. However, FP&R has provided *increased support through technical assistance to private landowners on more than one million acres* through the Current Use tax program, and federal cost-share programs such as the Stewardship Incentive Program. The fraction of FP&R's total budget that comes from the General Fund has declined from about 47% in 1986, to under 25% today. In response, FP&R has partially "reinvented" itself by placing State Parks on a user-fee and lease-revenue basis, and through partnerships such as with the Vermont Youth Conservation Corps and the Vermont Association of Snow Travelers. However, gaps are widening between FP&R's duties and their means which will lead to serious inconsistencies between public expectations for a "green" state containing well managed public lands-- and the reality of a neglected natural infrastructure.



→ Changing science and changing values affect FP&R's mission

The means by which FP&R creates public benefit is adjusting to the changing science and public values for natural resource management. The "working forest" is now recognized as a complex ecosystem. As much or more benefit is now gained from flows of tourists and recreational users on state lands as from the flow of wood-based commodities. *Half of FP&R's total budget is now funded by recreational users in the form of lease payments and entrance fees.*

→ **Dynamic goals, static measures.**

Although FP&R's programs are adapting to changing public needs, their budget coding and reporting have changed little. For example "roads" and "timber sales" and "administration" are FP&R's major cost categories. *Even though the Department's revenues are increasingly supported by recreational user groups, 46% of total FP&R expenses are reported in roads and timber sales.* Although the roads may provide recreational access and timber sales may provide needed forest management, the magnitude of these activities, as reported, can be seen to diverge from FP&R's primary mission of stewardship. FP&R's accounting practices need adjustment to reflect newly emerging criteria for the performance of resource managers, the provision of recreational and tourism opportunities, and the use of state lands for wildlife and other "non-consumptive" values.

→ **Perceived need for more open planning**

The key to building public support and reinforcing natural constituencies for FP&R programs is reflected in part by how the public views their involvement in FP&R strategic planning. While effort has been made to open-up the planning process for state lands, several respondents from key constituent groups felt more could be done. Open planning would serve, in turn, to help build financial support for FP&R as well as provide a mechanism for conveying new information about public values for the use of public lands to state land managers.

→ **Great expectations for FP&R and Vermont state lands**

A variety of studies predict multiple economic and environmental benefits from well-managed natural resources. Vermont stands to gain significant value from eco-tourism; from recreational and cultural attractions that depend on Vermont's environmental quality; and from property values enhanced by their proximity to well-managed public lands. These benefits can only be realized by maintaining the comparative economic advantage of environmental quality. This study finds that *FP&R plays a key role in reinforcing and upholding this positive Vermont image.*

→ **...But who will pay?**

The range of public and private benefits generated by FP&R justify restored General Fund support through the use of economically efficient funding mechanisms. *We recommend a dedicated share of gasoline and/or rooms and meals taxes as the best options for linking FP&R benefits with a more stable revenue source.* One quarter (1/4) of one penny of the gas tax raises between \$700-800,000 annually; an amount that minimally corrects for expected continuing state and federal budget cuts. With the exception of New York (which has a variety of county and local gas and other taxes) the states surrounding Vermont have state gas taxes 3-6 cents per gallon higher. Alternative funding options including fees for land transfers adjacent to public land; taxes on recreational equipment, timber removals or water diversions; or expanded habitat stamp programs are potential new sources but require further study.

Section 1: Rising FP&R Expectations; Receding Financial Resources

1.1 Introduction

The accumulated multiple goals and related activities combined with FP&R's necessary responsiveness to local conditions to produce a complex picture, for which a standard "black-

Since FP&R operates at the interface of the economy and the environment, it has to flexibly respond to changing economic and environmental conditions. However, the fiscal accounting practices of the state are less responsive, making the budget an opaque lens through which to view FP&R activities.

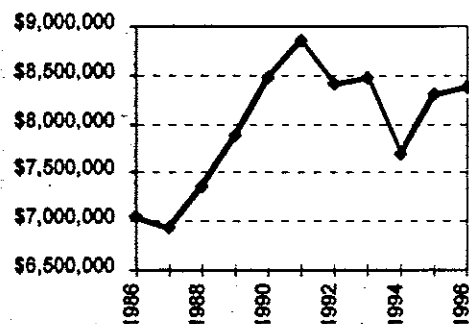
box" analysis of financial inputs and outputs is poorly suited. Any discussion of the budget of Forests, Parks and Recreation must also be tempered by an appreciation of the historical context of FP&R. Since FP&R operates at the interface of the economy and the environment, it has to respond to changing conditions and expectations. However, the fiscal accounting practices of state government are somewhat less responsive, and make the budget an opaque lens through which to view FP&R activities. Overall, FP&R's duties continue to expand even as its fiscal resources have been steadily whittled away.

1.2 Recent Budget Trends

In the most recent decade FP&R's overall budget has gone from approximately \$7.05 million in 1986 to a peak of \$8.85 million in 1991, to \$8.31 million for fiscal year 1995 (constant 1986 dollars, *Figure 1*).¹ Full-time FP&R jobs have declined 10% since 1989 and part-time seasonal staff has been cut by 50%. The FP&R budget is mainly made up of a combination of state general funds, a special parks fund, and federal cost-sharing funds. The special park revolving fund consists of revenues from land leases to ski areas, user fees, and timber sales from park lands.

The state General Fund appropriation has gone from \$3.28 million in 1986, to a peak of \$3.86 million in 1991, to \$2.05 million in 1995 (constant 1986 dollars, *Figure 2*). This 32.4% decrease in General Fund appropriations since 1986 came about in large part as the State Parks were put on a lease and self-generated revenue basis, but also as an economic recession forced hard

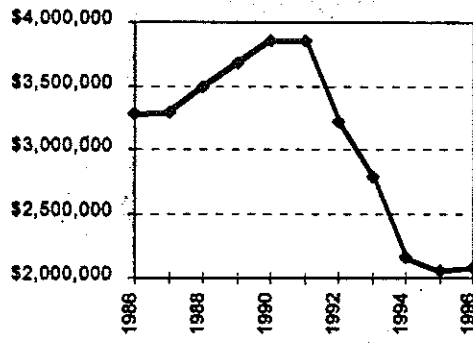
Figure 1. Trend for Total FP&R Budget [1986\$ (deflator=.03/yr)] (Source: FP&R)



¹ Adjusted for price inflation at 3% per year based upon averaged consumer price index (CPI) data.

decisions upon state policy makers. To provide some perspective, in 1995, FP&R had a total budget of \$11.38 million of which \$2.81 million (nominal dollars) was drawn from the General Fund.² This was less than one-half of one percent of the total state appropriations for the year;

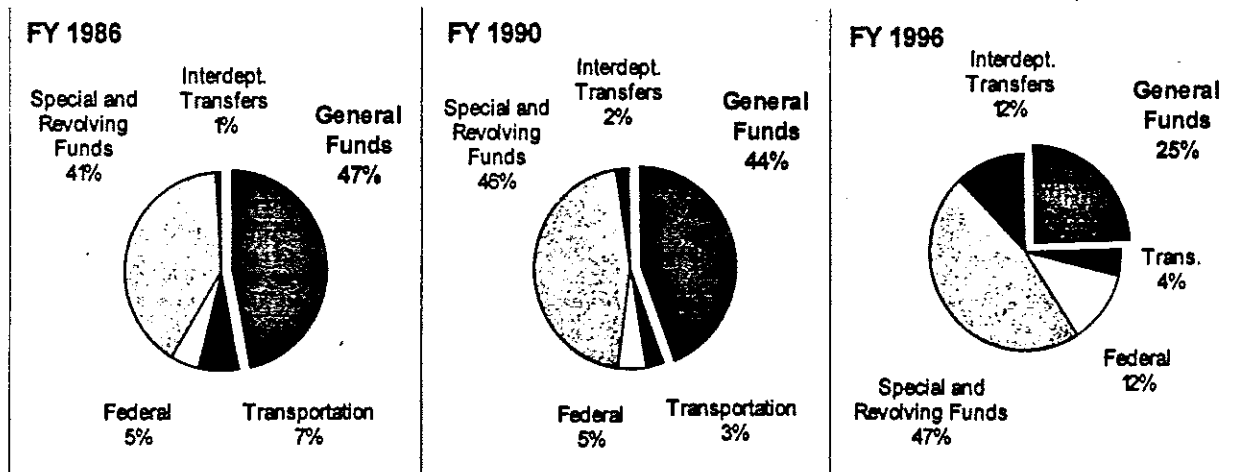
Figure 2. Trend for FP&R General Funds Allocation (1986\$) (Source: FP&R)



In 1995, FP&R had a total budget of \$11.38 million of which \$2.81 million was drawn from state general funds. This was less than one-half of one percent of the total state appropriations for the year; or less than \$5 per Vermonter.

0.42% to be exact, or less than \$5 per Vermonter. In the decade from 1986 to 1996 the percentage of FP&R's budget from the General Fund has steadily declined from about 47% to under 25% (Figure 3).

Figure 3. Proportion of FP&R Budget From Various Sources, 1986, 1990, 1996 (Source: FP&R)



Federal cost-sharing funds have long supplemented the FP&R budget, growing in the same decade from 5% to 12%. Due to justifiable caution about becoming too dependent on this source of funding, FP&R has mainly used federal sources to make up for annual budget shortfalls. It has

² Strobridge, Peter, Business Manager, VT FP&R, Personal Communications, June, July 1995 (provided all unadjusted FP&R budget data).

In the decade from 1986 to 1996 the percentage of FP&R's funding from state general funds has steadily declined from about 47% to under 25%.

past. FP&R anticipates an over 20% reduction in federal funds for FY 1996 compared to FY 1995 with severe affects in specific areas. For example, FP&R's conservation education program, where staff has already been pared down considerably, receives significant funding from the federal Natural Resource Conservation Education Program which has been targeted for total elimination in the U.S. House as proposed in the 1996 federal budget.

This will drastically curtail resource-based environmental education programs such as Project Learning Tree, and the State Parks Naturalist Program for Vermont schools. Additionally, self-funded programs which work in close cooperation with the FP&R, such as the Vermont Youth Conservation Corps (VYCC), rely heavily on funds which are authorized through other federal agencies. Some of these funding sources, such as the Job Training Partnership Act (JTPA), are also on the chopping block.

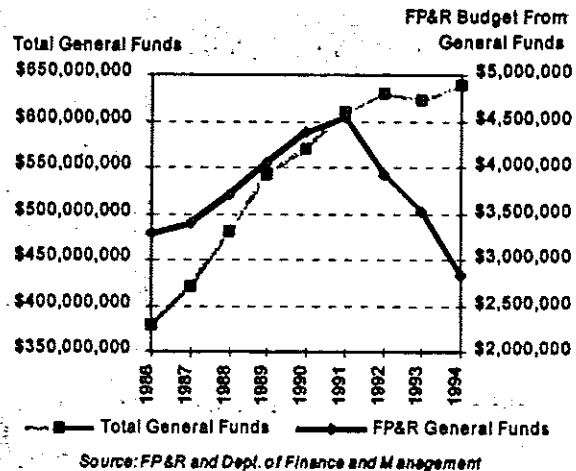
The FY 1997 federal budget most concerns FP&R Business Manager Peter Strobridge, since Presidential candidates can be expected to compete for who can wield the largest budget axe. Combined with recent state budget problems related to over-estimates for Vermont's personal income tax collections, state agencies are bracing for a double blow to their operating budgets. A comparison of FP&R's general fund appropriations to total general fund spending shows that this department has already borne a disproportionate share of budget cutting pain (Figure 4).

1.3 Expanding FP&R Responsibilities

In the same recent decade, the responsibilities of FP&R have expanded considerably. Management of parks and recreation sites, private land acreage requiring current use appraisals, state land acquisitions, requests for private

been able to, in effect, bank the unused federal spending authority over the years, but this "bank account" has been depleted in the past couple of fiscal years due to reduced state funding. Now with federal cutbacks looming in the U.S. Interior and Agriculture Departments, the state cannot rely on this supplementary source as it has in the

Figure 4. FP&R General Funds Budget Trend Compared to Total General Funds Spending



If not attended to immediately, this funding gap will lead to even more dramatic differences between the purported image of a state with relatively well-managed natural resources, and the reality of an increasingly neglected natural infrastructure

forest land management planning assistance, and conservation education in schools all require the attention of FP&R personnel. With the diminished funding and concurrent staff cutbacks, a real gap is widening between the Department's given tasks and its means to achieve them. If not attended to immediately, this funding gap will lead to even more dramatic differences between the purported image of a state with relatively well-managed natural resources, and the reality of an increasingly neglected natural infrastructure.

In response to the public's desire for more public lands--especially parcels with unique or rare natural features--FP&R has increased holdings by approximately 1.5% per year over the last ten years. This compares with an historical average of roughly 2.7% per year. *However, the combined total of FP&R managed public lands is still less than 5% of Vermont's total forest land base.* Despite this moderate increase in holdings, General Fund appropriations to the department have fallen by approximately 37.4% in real terms over the same period.³ State land acreage now totals approximately 290,000 acres, all of which requires long-range management planning by FP&R.⁴ Land management costs have risen by \$100,000 in just the two years from 1991 to 1993.⁵ Staff time spent on basic tasks such as state lands boundary maintenance has "steadily declined over the four year period" from 1990-93, with all FP&R administrative districts getting "further and further behind."⁶

In 1968, there were only 9,400 acres per full-time equivalent (FTE) employee assigned to administer and manage Vermont state lands while in 1992 there were 17,000 acres per FTE... this compares to the 4800 acres per federal FTE employee in the Green Mountain National Forest in 1992.

Department administrators are seriously concerned about their ability to responsibly manage state lands with current staffing levels. Whereas in 1968, there was only approximately 9,428 acres per full-time equivalent (FTE) employee assigned to administer and manage state lands, in 1992 there were 17,000 acres per FTE. This can be compared to the 4800 acres per federal FTE employee in the Green Mountain National Forest in 1992. Forestry Director David Stevens predicted a "purely caretaker role" for FP&R on state lands, if current acquisition and staffing trends continue.⁷

³ In nominal terms (dollar amounts not adjusted for price inflation) the decrease in state funding is still a significant 14.2% since 1986 and 37.9% since the peak appropriations year of 1991.

⁴ Approximately 183,000 acres under FP&R, and 107,000 under other ANR department's supervision.

⁵ Frederick, Diana, State Lands Forester, *State Lands Cost Report*, VT FP&R, 1995. This rise in costs is partially due to the adoption of modern computer mapping technology, such as that used in digitizing the Mt. Mansfield State Forest onto a Geographic Information System (GIS) in 1993.

⁶ Frederick, *ibid.*,

⁷ Stevens, David C., *Memorandum Re: State Land Management Staffing Levels*, VT FP&R, 1993

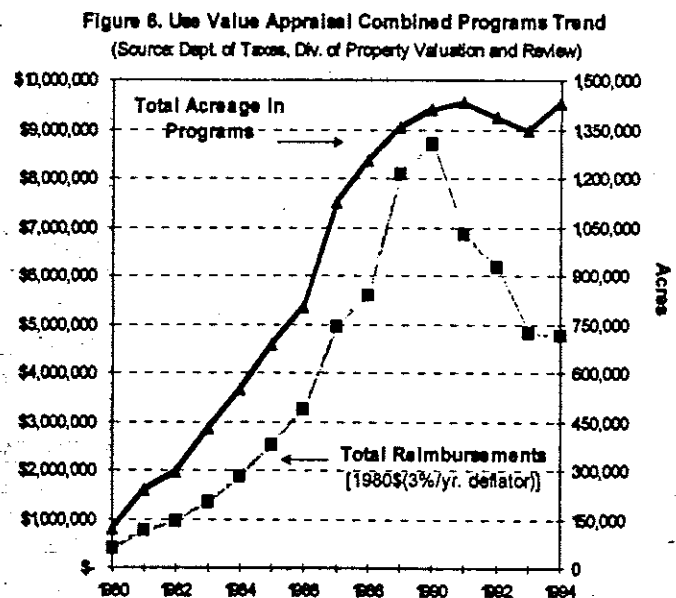
Surveying, boundary marking, cleanup, and environmental assessment typically accompany public land acquisitions. Due to the increasing number of small acreage landholders adjacent to state lands, neglected boundary maintenance is a pressing concern. Increased tipping fees for trash disposal are also generating a greater need for monitoring the use, or abuse, of state lands. These tasks are necessary for responsible land management, but incur costs to FP&R that are rarely covered by direct appropriations.

In a 1991 report, 86% of Northeast Kingdom residents supported public land acquisitions.

The vast majority of Vermonters support public land acquisitions. An example of support can be drawn from a 1991 report (using data from 1989) which showed that 86% of Northeast Kingdom residents supported further public land acquisitions.⁸ FP&R, along with non-profit organizations such as the Nature Conservancy and the Trust for Public Lands, are helping the state to manage identify and manage unique tracts for public ownership, such as with the recently completed purchase of 2,780 acres in the Phenn Basin in Fayston. In spite of assistance from non-profit groups, FP&R is still falling behind in basic maintenance. The arguments for continued public land acquisitions in Vermont are compelling in the face of current development pressure. State Lands Administrator Ed Leary likens public lands in Vermont to "islands in a sea of development" if current trends in commercial and residential construction continue into the next century.

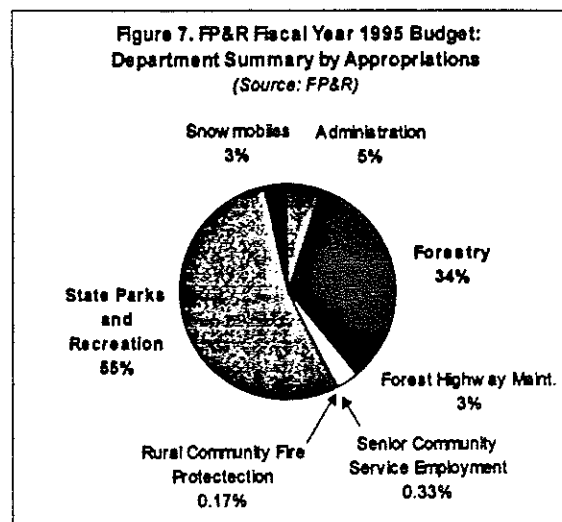
1.4 Current Use Tax Program on the Ropes

The Current Use property tax relief program, which has typically had strong public and political backing, now needs about the equivalent of three full-time FP&R employee for the land use appraisals required by the law. Despite this state-mandated task, FP&R has received no accompanying funding. The Current Use programs have been under funded in recent years leading to turn-over rates in participation (*Figure 6*). With the erosion of this program, increasing rates of conversion of forest and fields to residential or commercial development are a concern. A recent 1994 report found that the 28,000 acres of lands withdrawn from the under-funded CU program in 1991



⁸ Echelberger, Herbert E., Albert E. Luloff and Frederick E. Schmidt, *Northern Forest Lands: Resident Attitudes and Resource Use*, USDA Forest Service Research Paper NE-653, 1991.

were more likely to be owned primarily for timber harvesting reasons. This is in spite of the fact that almost half of the survey respondents (owning a third of the acreage surveyed) cited "open space" as the primary reason for forest land ownership and, overall, 82% of the landowners surveyed gave "objectives other than timber harvesting as their primary reason for ownership."⁹ A key finding was that the most frequent motivation for withdrawing from Current Use was to remove the lien (and penalty provisions) for future development, *and secondly, "...dissatisfaction with reduced state support..." and, "... a lack of faith in the state's leadership..." to support use value taxation of forest land.*



1.5 State Parks: User Fees Maintain Park Services

FP&R has already responded creatively to the challenge of decreasing fiscal support, in managing the State Parks system.

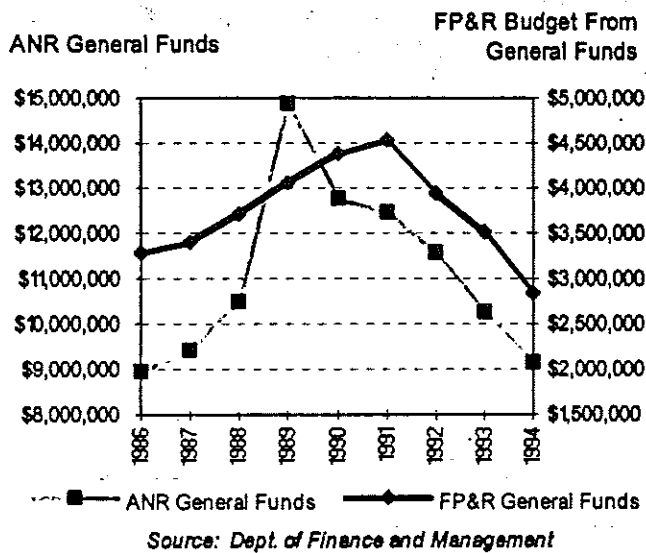
FP&R has already responded creatively to the challenge of decreasing fiscal support in their management of the State Park system. Competitively priced user fees, leveraged assistance through volunteer associations and academic cooperation, and public-private partnerships have been put to good use by FP&R. Government reinvention, however, requires not only more efficient use of resources but also responsive delivery of services. To become more "customer oriented," FP&R has begun to open their planning process to the public and has sought feedback through surveys.

As the most noticeable example of improved operating efficiency the State Parks System, with authorization from the Legislature, reduced, and then eliminated dependence on General Fund support. In 1993, this support constituted approximately half of the State Parks' operating budget. However today, about fifty-two percent of the total State Parks' budget is derived from fees for camping and day-use, and other charges. The other forty-eight percent are revenues from leases of public land to seven alpine ski areas. Together, these sources now support approximately half of the entire FP&R budget (*Figure 7*).

⁹ *After Use Value Appraisal: A Study of Vermont Forest Land*, by Dorothy Shea Weinstein, Masters Thesis, September, 1994

The Department of Forests, Parks and Recreation has not been the only state agency to suffer recent cuts in its General Fund appropriations. Its parent Agency of Natural Resources has been subjected to similar budget rollbacks (*Figure 8*). Time will tell whether this financial retreats in support for the agencies responsible for state environmental and natural resource management reflects temporary complacency or a wholesale change in the values of the state's elected officials. As former Governor Madeline Kunin stated a decade ago, "A budget is not simply a dry and arbitrary column of numbers,[it].. is a reflection of our values."¹⁰

Figure 8. FP&R General Funds Budget Trend Compared to ANR General Funds Spending



¹⁰ Kunin, Madeline, *Governor's Budget Message*, January 1985.

Section 2: Investing in the Future of FP&R Programs

2.1 Introduction

The future holds promise and risk for this relatively low-profile department in a small rural state. FP&R is responsible for the creation and maintenance of significant public benefit. In response to changing public values for forest lands, the advancing science of ecosystem management, and most importantly new fiscal constraints, this analysis finds that FP&R is undergoing important institutional changes. While such change should position FP&R to enhance the public interest in promoting environmental and economic health in Vermont, it also leaves FP&R vulnerable in terms of their historical constituencies and funding support. Overall we find that balancing the budget should not be an excuse for undermining Vermont's long-term investment in its natural resource infrastructure at a time when these investments are proving their worth and have even greater promise for the future.

Balancing the budget should not be used as an excuse for undermining Vermont's long term investment in its natural resource infrastructure.

2.2 Public Benefits to Vermont

FP&R creates significant public value including market and non-market benefits. This includes monetary benefits derived from technical assistance programs, recreational activities that rely on FP&R maintained facilities, the commodity value of resources extracted from state lands, and indirect economic benefits to local communities. FP&R is also responsible for the generation and maintenance of considerable non-use value such as the role of conservation education, benefits from improved forestry practices, and improvement in ecological services such as habitat for certain species.

Based on surveys of State Park visitors' actual expenditures, the direct economic impact of the Parks on surrounding communities and the state is approximately \$59 million per operating season.

Recreation on Vermont state lands is now paid for in large part by those who enjoy it, but the economic benefit of recreation-based tourism diffuses widely around the state. For example, a 1994 economic impact and recreational-user attitude study by the University of Vermont School of Natural Resources estimated the direct economic benefit of the State Parks, during their six-month official operating season. Based on surveys of park visitors' actual expenditures, the surrounding communities and the study estimated that the state receives approximately \$59 million per operating season. As the study plainly states, "It is evident that tourism related to the Vermont state park system generates significant

economic activity within the state of Vermont.”¹¹ Another study by the Northeastern Forest Alliance (a network of state forestry organizations) supports this conclusion. In a 1992 report, NEFA estimated that total “forest-based” travel expenditures in Vermont in 1990 were \$952.9 million which included approximately 18,600 “forest-based” recreational jobs in 1989. These recreational jobs generated payrolls of roughly \$157 million.¹²

The UVM study also examined the relative non-use values for park visitors, finding that, on average, the value of passing State Parks on to future generations (bequest value) was more important than the actual use value for both day visitors and campers. Option and existence value were ranked less important than use value in this study, but respondents agreed that both were important. Additionally, aesthetic and educational reasons ranked high as reasons for having State Parks in Vermont, whereas the consumptive use of the natural resources of the parks ranked dead last among fourteen criteria. Over 90% of park visitors rated the facilities and services in the parks to be excellent or above average.

The value of passing State Parks on to future generations was more important than the actual use value for most visitors surveyed.

Well-managed public lands have yet another public value which can be measured in improved values for adjacent privately held land. One market measure is realized simply through the reduced supply of land available for development. In Vermont, however, this scarcity effect is

minimal since the total amount of protected land is still under 7%, and the lands protected are, by and large, not suitable for agricultural, residential, industrial, or commercial uses. Far more important private property value is added by the permanent protection of unique and biologically rich land. This provides any adjacent private landowners with essentially, a “back-40” to enjoy without paying property taxes, and without the possibility of construction next door.

A prominent Vermont realtor believes that the state’s “...environs will make it one of the most unique places in the next millennium and perhaps the most desirable place to live.” Private property adjacent to most public lands is “much more desirable” since his clients are generally seeking a quality of life enhanced by such proximity.

Lang Associates Realtor Staige Davis believes that the state’s “environs will make it one of the most unique places in the next millennium and perhaps the most

¹¹ Negra, Christine, Robert E. Manning and Alphonse H. Gilbert, *Economic and Social Values of Vermont State Parks*, School of Natural Resources, University of Vermont, 1994. This is a conservative valuation since there is an estimated further willingness to pay more in fees on the part of some visitors, estimated in aggregate to be over \$2 million. Additionally, there are other significant direct economic impacts, such as that of off-season park users, and value generated such as that for residents who would like to maintain the option to visit a state park in the future, even if not now actively using these amenities. An analysis of the economic multiplier effect of visitor expenditures would find considerable indirect benefit as well.

¹² Northeastern Forest Alliance, *The Economic Importance of Vermont’s Forests*, 1993.

desirable place to live.¹³ He finds that property adjacent to most public lands is "much more desirable" since his clients are generally seeking a quality of life which is enhanced by such proximity.¹⁴ A recent real estate listing in the Wall Street Journal confirms this tangible value added, since the only description of a 4,000 acre plot in Vermont is that it is "adjacent to state lands."¹⁵

2.3 FP&R at a Crossroads

One of the primary purposes of public land today is to provide the long-term interrelated benefits of ecosystem management which multiple private landholders cannot be expected to provide.

One of the primary purposes of public land today is to provide the long-term interrelated benefits of ecosystem management which multiple private landholders cannot necessarily be expected to provide. The protection of rare natural habitat, such as alpine tundra and peregrine falcon nesting grounds, but also restored habitat of bear, moose, deer, migrating birds and fresh-water fish are an increasing public benefit of well-managed ecosystems. Although state-managed lands account for less than 5% of the state's land area they encompass, for example, 30% of the black bear habitat in the state. As McKibben wrote optimistically about the Northern Forest, "A new frontier may be opening here--an expanding frontier of recovery that, given infinite

human care and nurturing, might follow the waves of destruction across the continent and then around the world."¹⁶ FP&R's job increasingly is to encourage and provide the care McKibben refers to.

A comparison of the evolving mission of FP&R to their reported expenditures and activities exposes some dissonance due to unavoidable lags in fiscal accounting practices. A 1995 State Lands cost report states for example, that "Road construction is the largest expense" but much of this funding comes from the State Agency of Transportation (AOT). "Administration, general forestry, and timber management is where the most time is spent."¹⁷ The response to the question of whether income from timber sales covers the costs of

Although state-managed lands account for less than 5% of the state's land area they encompass 30% of the black bear habitat.

¹³ "Where We'll Be in the Year 2020," *Vermont Magazine*, June, 1995

¹⁴ Davis, Staige, Realtor, Lang Associates, Personal Communication, July, 1995.

¹⁵ Wall Street Journal, *Marketplace*, 9/1/95

¹⁶ McKibben, Bill, *ibid.*

¹⁷ Frederick, *ibid.* Vehicles is the largest category in "general forestry," followed by planning.

timber management is, "...This is a more complicated issue than meets the eye." As income and expenses are presently coded, apparently they do not. Some costs are under-reported such as biological inventories, vegetative management in the Long-Range Management Plans (LRMPs), and timber traded for road work. Other costs are over-reported because roads once built may serve recreational purposes.

Practices such as road building and timber sales on state lands must be reconsidered based on the state's current values and needs. FP&R has made generally sound resource management decisions in the past based upon its public and scientific information collection efforts. Now, such decisions should reflect a genuine effort to lead and learn about ecosystem management.

Clearly FP&R has a strong institutional memory and a mission-based culture with a heavy reliance on the tacit knowledge and working bias of individuals. This study finds that FP&R needs to assimilate the more recent learning and experience of field staff, particularly as they strive to implement principles of ecosystem management since the public is better served by an organization which prudently adapts its activities to changing knowledge and circumstances.

FP&R needs to re-codify accounts by program purpose, and better report on the recent learning and experience of field staff, particularly as they strive to implement principles of ecosystem management.

Vital public institutions evolve through such adaptation and learning. As County Forester David Brynn notes, FP&R has come to realize that, whereas their formative mission was to educate the public, "...increasingly the public should be a source for FP&R's education".¹⁸ Brynn calls this part of a "paradigm shift" in which the broader values expressed by the public, especially the non-industrial private forest land owners, have increasingly influenced and, to some extent, directed FP&R activities. As citizens and citizens' groups have become more articulate, particularly in expressing non-commodity-based values for land management, FP&R has responded with long-range land management plans that take a more comprehensive view of ecological systems.

Overall, it is apparent that new criteria for ecosystem management need to be coded and reported in order to develop proper performance-based criteria for public land managers. For example, FP&R could code and report on the amount of riparian habitat protected by tree planting, rather than simply coding such tree planting activities as "timber management." Recent efforts by the Vermont Economic Progress Council and the Vermont Forest Resources Council to identify key "benchmarks" of forest productivity and sustainability are ready-made vehicles that can assist and complement FP&R's need to rethink performance criteria and budget coding procedures.¹⁹

¹⁸ Brynn, David, Addison County Forester, VT FP&R, Personal Communication, July 1995.

¹⁹ For a more detailed discussion on the use of, and role for, environmental indicators in natural resource management, see *Report Card for Vermont* published by the National Wildlife Federation, December 1994.

2.4 Adaptive Management of Vermont's Natural Resources

Historically, as comments by Vermont's first state forester Austin F. Hawes in 1910 on the problem of rural impoverishment from rampant deforestation demonstrate, wood was never the sole concern of FP&R. However, public land managers are increasingly expected to sustain a broad number of healthy relationships, both among natural processes and between humans and nature. The science of ecology and the institutional requirements of ecosystem management provide, in a sense, a compass for directing the priorities of public land managers.²⁰ The science

"...Finally we have begun to realize that maintaining the integrity of forest ecosystems is much more important than timber yields"

of forestry, for example, has conceptually evolved from timber management, to forest management, to ecosystem management. As University of Vermont extension forester Tom McEvoy has written, "Finally we have begun to realize that maintaining the integrity of forest ecosystems is much more important than timber yields."²¹ He defines ecosystem management as "an ecological ...approach where timber yields are subordinate to ensuring a healthy, sustainable forest".

County Forester Brynn perceives this change of approach as influencing not only the definition of professional forestry practices but, perhaps most importantly for Vermont, public expectations for responsible land management. When the complete set of stakeholders in Vermont's natural environment are included, FP&R's public service mission is broad indeed. State Forest Products Marketing and Utilization Specialist Bob DeGeus call FP&R's interaction with the public today, an "interactive conversation."²² In turn, due to this opening of FP&R to more broad based public input, it is subject to a potentially wide range of contradictory expectations. In seeking to balance these public desires FP&R needs to maintain a certain equilibrium.

The strategic shift from a "line department" just trying to survive to one that can proactively husband Vermont's natural resources requires public and fiscal support. Innovative programs are often those which are the first to suffer under imposed resource cutbacks. Even with the best intentions, those programs with historically less financial and human investment will likely be the first affected by budget constraints.

²⁰ Lee, Kai N., *Compass and Gyroscope*, Island Press, 1993

²¹ McEvoy, Tom J., "Forests for the Future", *Vermont Woodlands*, Summer 1994

²² DeGeus, Bob, Marketing and Utilization Specialist, VT FP&R, Personal Communications, August 1995.

FP&R is already pared to the bone. Full-time staff is down by over 10% from 1989, and part-time seasonal staff has been cut by 50%, from approximately 500 to 250.²³ Further cuts can be expected to result in a significant retreat from basic land maintenance and forest resource management programs. Pressure may increase to gain timber cutting revenue, or to more aggressively develop Park lodging and recreational facilities in potential competition with private providers. With proper funding, FP&R can be responsive to the changing science and expression of public values for the use of state lands.

2.5 FP&R and Expectations for Forest-Based Tourism

With tourism playing an ever more critical role in the state's economy, Vermont has justifiably increased its travel and tourism promotion expenditures. This has resulted in increased demand for the types of services provided by FP&R such as trail maintenance or campground facilities. However this study finds that there is a major "disconnect" in the state's declining commitment to support FP&R's ability to provide quality outdoor experiences while at the same time raising visitor expectations by boosting tourism promotions substantially.

The state now spends about \$1.4 million on tourism promotions, and the private sector spends about \$60 million. It is apparent that an increasing level of tourism is associated with public facilities. For example, headlines in the *Burlington Free Press* on July 27, 1995 read "...Summer tourism season spotty...", but "ad campaign draws visitors...", and "...Outdoor camping fuels tourism growth."²⁴ The State Parks are attracting and receiving increased visits. Overnight stays were up by 25.5% over 1994 and day use was up by 8.6%. Brad Rubman, manager of Lone Pine Campsites in Colchester stated that "Right now, camping is a booming business." Although the summer heat spell was partially responsible for the increased visits, especially to Parks with water-based facilities, long-term demographic and recreational trends both suggest that natural resource-based tourism is a growth business.

There is a major "disconnect" in the state's declining commitment to support FP&R's programs...while at the same time raising visitor expectations though substantial increases in tourism promotion.

Recent studies on recreation trends, such as those from the Northern Forest Lands Council (NFLC), Vermont's White House Conference on Travel and Tourism, and The Wilderness Society, suggest a variety of strategies for cultivating a healthy economy through the

²³ Strobridge *ibid.*, Koenemann, Edward, Director of State Parks and Recreation Division, VT FP&R, Personal Communications, June-July, 1995. 134 full-time employees in 1989, and 128 minus a further 6% across-the-board staff reduction for 1996.

²⁴ Totten, Shay, "Summer Tourism Season Spotty," *Burlington Free Press*, 7/27/95

preservation and non-consumptive use of forest lands. The White House Conference touched on a few issues relating directly to FP&R including; incorporating Vermont's cultural heritage in new tourist oriented products such as guided agricultural or nature tours, building on "the rapidly growing ecotourism base," and improving the institutional capacity to measure different recreational uses.²⁵

The White House Conference identified historical characteristics used to promote the state including its reputation for quality, natural and cultural beauty, and a clean environment. To preserve this image, since the state increasingly must rely on private landowners for recreational access, further property tax reform is needed. Additionally the Conference recommended that, "Vermont's public and private lands need protection to conserve the state's natural resources and rural landscapes, which are also integral to Vermont's tourism products."

"Vermont's public and private lands need protection to conserve the state's natural resources and rural landscapes, which are also integral to Vermont's tourism products." -Vermont's White House Conference on Travel and Tourism, 1995.

In a NFLC-commissioned report , *Recreation and Tourism*

Opportunities for Non-Traditional Forest Industry, Thomas Lea Davidson points out that globally the largest export industry is now travel and tourism and that, in the U.S., tourism is

generating jobs at a rate faster than any other major industry.²⁶

"We [should] consider something more than cutting them down or digging them up, and shipping them out. We should talk about bringing people to look at them and leaving money behind" -

Thomas Lea Davidson, 1994.

Tourism exports not physical products but "memories," created by unique, quality experiences. The challenge for tourism-based economic development is to "get the market to come to us" by creating those memories. Regarding forest management, Davidson recommends that "we consider something more than cutting them down or digging them up, and shipping them out. We should talk about bringing people to look at them and leaving money behind." This comment should be seriously considered in light of Vermont's limited public forest holdings.

Tommy Brown expands further on forest-related tourism's impact and potential in his report to the NFLC.²⁷ After

reviewing the tourism statistics for Vermont in 1991, which saw 7.9 million visitors generating

²⁵ Vermont's White House Conference on Travel and Tourism, *Vermont's Travel and Tourism Issue Papers*, 1995

²⁶ Davidson, Thomas Lea, *Recreation and Tourism Opportunities for Non-Traditional Forest Industry*, in Northern Forest Lands Council, *Technical Appendix*, 1994.

²⁷ Brown, Tommy, *Outdoor Recreation and Tourism Studies Applied to the Northern Forest Lands: Literature Review and Analysis*, Northern Forest Lands Council Technical Appendix, 1994.

gasoline tax. A similar increment dedicated to FP&R would enable the continuation of programs critical to Vermont's future, while having a minimal effect on gas prices which routinely fluctuate by several cents. *In addition, every state surrounding Vermont has substantially higher gas taxes rates which indicates that the likely concern over "tax competitiveness" is a moot point regarding this particular type of consumption tax.*³² Alternatives such as fees for land transfers adjacent to public land, recreational goods sales taxes, and "green taxes" on timber removal or water diversion, are potential funding options but require further study.

Park administrators believe that park user fees have been sufficiently fine tuned to maximize revenue. The 1994 UVM study shows that camping fees in particular are set close to the maximum that the market will allow without diminishing revenue.³³ However, approximately \$2,000,000 in additional willingness to pay per season has been measured for day-use fees.

Although this represents an additional revenue source, State Parks Administrator Ed Koenemann feels that since the majority of day users are residents, such increases would unduly fall on Vermonters who have already contributed to park operations through taxes. To efficiently capture the maximum revenue without overriding such equity considerations would require tiered charges which could incur undue administrative costs. Peak demand surcharges for high use times and locations could also be set. Discount schemes for certain parties (e.g. elderly, school groups, low-income) could be combined with higher set fees.

The lease arrangements with alpine ski areas are not up for renegotiation until well into the next century thus virtually eliminating this revenue source from present consideration. The state lease formula provides more revenue than the formula used by the federal government with alpine ski areas on federal lands.³⁴ However, just as most resource extraction on public lands carries at least a nominal fee, it can be argued that the diversion of public water for snowmaking should incur charges. A resource is typically used most inefficiently when there is a relatively low --or especially no-- marginal cost associated with its use. These revenues could appropriately be used for riparian habitat study, maintenance, and restoration to offset the effects of lower stream and river water levels.

By comparison, the State of Texas recently garnered praise for its two-year old initiative to place their 200 state parks and wildlife management areas on a self-sufficient financial basis.³⁵

³² *Significant Features of Fiscal Federalism*, Advisory Council on Intergovernmental Relations, September 1995.

³³ Negra, Christine, Robert E. Manning and Alphonse H. Gilbert, *ibid*.

³⁴ Leary, Ed, State Lands Administrator, VT FP&R, Personal Communication, June, 1995.

³⁵ Tomaso, Bruce, "Texas State Parks Raise Revenues, Draw National Attention", *Dallas Morning News*, Greenwire 7/26)

Facing similar cutbacks in state appropriations as Vermont's FP&R, the Texas Parks and Wildlife Department is operating more like a "private company inside state government." They have produced mail-order catalogues, rent out recreational equipment, developed special tours, and have installed a centralized reservation system credited with increased visits to state campgrounds and lodges. Net park revenues have risen by about 10%, now covering some 80% of operating costs.

While this highly entrepreneurial approach may be appropriate in Texas, Vermont's FP&R has attempted to cooperate with private recreational providers rather than to compete with them. Aggressive facilities development, such as cabin construction and recreational vehicle hook-ups, would expand the Park's niche, but at the potential expense of private providers. However, if greater public financial support is not forthcoming, such methods of directly capturing more of the public benefit of FP&R's activities will need to be reconsidered.

Appendix 1: FP&R's Partnerships for Resource Management

FP&R is involved in a wide range of inter-agency relationships and partnerships with organizations as diverse as the federal resource agencies to universities, private industry and individuals. In general these partnerships have been necessary to provide cost effective service and extend FP&R's increasingly scarce resources in order to pursue its mission. In doing so FP&R has had to forego a measure of autonomy and authority in order to provide for collaborative programs. Proposed Federal and State budget cuts will threaten the ability of FP&R to be a "good partner," and send the wrong message to FP&R administrators and stakeholders who have achieved more with less in order to satisfy specific program needs. This section discusses several of these partnerships in more detail.

Trail user groups such as the Vermont Association of Snow Travelers (VAST), and the Green Mountain Club (GMC) increasingly perform trail construction and maintenance in cooperation with FP&R. VAST jointly manages 4500 miles of snowmobile trails with FP&R -some 90% of which are on private lands- with funds raised from snowmobile licenses and fees.³⁵ VAST recently released a study based on surveys of its over 20,000 members, which estimates the annual direct economic impact of snowmobile activity in the state on the order of \$80 million.³⁶ When rating "items concerning the snowmobile trails system in Vermont," respondents assigned "trail placement-scenic, natural value" the highest score of all, among factors such as trail grooming and signage.

When asked to rate "items concerning the snowmobile trails system in Vermont," VAST members gave "trail placement-scenic, natural value" the highest rating of all, among factors such as trail grooming and signage.

The GMC has long been responsible for substantial sections of hiking trails in the state, and since 1971 has been recognized by the Vermont legislature as the "founder, sponsor, defender, and protector of the Long Trail system."³⁷ The Club recognizes that "cooperative partners" such as

³⁵ Northern Forest Lands Council, *Technical Appendix*, 1994.

³⁶ Mc Elvany, Norman D., *Snowmobiling in Vermont: An Economic Impact Study and Snowmobile User Survey*, Vermont Association of Snow Travelers, 1995. Total estimated economic impact of \$165,252,770, includes "other indirect economic impact factors" and a questionable "economic multiplier factor of 2X."

³⁷ Green Mountain Club, *Annual Report*, 1994

FP&R are "critical to the success" of its work. Through the efforts of GMC staff, hundreds of volunteers, and the contributions of over 6000 members, the GMC in 1994 reconstructed 50 miles and maintained 440 miles of the Long Trail/Appalachian Trail System, including some 65 overnight shelters. FP&R contributed \$10,000 to these field programs and also funded the GMC-staffed "Summit Caretaker" educational program on Vermont's three highest peaks to prevent damage to sensitive arctic and alpine plants.

The Green Mountain Club recognizes that "cooperative partners" such as FP&R are "critical to the success" of its work but calls for "greater public participation in decision-making about the management and use of state-owned land."

Aside from these funds, GMC Director of Field Programs, Lars Botzjorns, recognizes that the value of FP&R's long-term land management planning to the club is very high.³⁸ He notes, however, that there are some "philosophical differences" regarding the multiple use of forest lands which he would like to resolve through improved communications. GMC has called for "greater public participation in decision-making about the management and use of state-owned land." Botzjorns suggests in particular that FP&R should open its annual work plans to the input of informed user-groups as early in the planning process as possible. With about 150,000 hikers annually using trails maintained by the GMC, the leveraging of the state's contributions merits strong consideration of GMC suggestions.

The Vermont Youth Conservation Corps (VYCC) accomplishes work on behalf of the state which complements the efforts of both VAST and the GMC, and provides another example of FP&R's creative use of limited resources: The VYCC's objective is to be a "...conservation and education organization dedicated to teaching individuals to take personal responsibility for all their actions." The VYCC performed \$807,801 worth of high-priority conservation work on public lands in Vermont in 1994.³⁹

³⁸ Botzjorns, Lars, GMC Director of Field Programs,, Personal Communications, August, 1995.

³⁹ Vermont Youth Conservation Corps Inc., 1994 Annual Report.

All Corps operating funds are raised through annual fund-raising efforts, foundation and federal grants, and fees for services. Corporations, non-profit foundations and individual donors contribute to the VYCC Annual Fund. The state and local communities pay on a contractual basis for trail and recreation path work and for managing some State Parks and concessions.

The Vermont Youth Conservation Corps performed \$807,801 worth of high-priority conservation work on public lands in Vermont in 1994. For a young person, participation in the VYCC can instill a lifelong conservation and work ethic.

VYCC may receive the same \$30,000 a season from the Park revolving fund which FP&R used to pay 3-4 seasonal state employees for managing a recreation area but will provide 10-12 young workers who reside on-site for the duration of the season. The Corps has a special commitment to conservation education for the young through a combination of challenging outdoor work, basic literacy, teamwork and self-esteem building. For a young person, participation in the VYCC can simultaneously instill a lifelong conservation and a work ethic.

The Nature Conservancy is concerned that an under-funded FP&R will lose knowledgeable staffers and that initiatives in ecosystem management will suffer.

Other notable working partnerships are those with land conservation organizations such as the Trust for Public Lands and the Nature Conservancy. Nature Conservancy Director of Land Protection John Rowe calls the relationship with FP&R "excellent" and regards the department as "good partners," in land acquisition negotiations, and in monitoring land-use agreements.⁴⁰

Rowe is concerned that an under-funded FP&R will lose knowledgeable staffers and that initiatives in ecosystem management will suffer. He notes that Vermont gets good value for its dollar, compared to the federal government, through its use of field staff and competitive bidding on surveys, but nonetheless an additional 18% to 25% of a parcel's purchase price can be incurred in overhead costs. Rowe points out that organizations like the Conservancy work with FP&R especially to keep land acquisition costs down.

Major private sector partners include the Vermont Ski Area Association (VSAA) and the Vermont Association of Private Campground Owners (VAPCOO), both of which FP&R cooperates with in marketing and long-term planning. FP&R works with the Vermont Forest Products Association (VFPA), to promote the forest products economy, and under the

⁴⁰ Rowe, John, Director of Land Protection, The Nature Conservancy, Personal Communication, August 1995

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