



A Recreation Plan for the State Parks and State Forests in the Pennsylvania Wilds



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Chapter 1 - Introduction

PREFACE

The Pennsylvania Wilds

At the dawn of the 20th Century, the unbroken forests of eastern America were laid to waste. The “Big Cut” stripped much of the northeastern U.S. of its forests by the late 1800s, leaving behind heaps of burning debris that would blacken the skies for decades. Pennsylvania forests were fated as well. Now, rather than being confronted by blighted mountain slopes and sediment-choked streams and runs, a modern traveler enters the world of elk, bear, turkey, and grouse. A century of conservation investments and efforts, spurred by the leadership of Pennsylvanians such as Gifford Pinchot, Joseph Rothrock, Myra Lloyd Dock, and Maurice Goddard, resurrected these forests and restored the Wilds.

Admittedly the job is not complete. There is restoration yet to be done. Acid Mine Drainage (AMD), a conservation challenge not imagined by Roosevelt, has left hundreds of miles of the region’s streams and rivers barren. Yet today even this intractable challenge is being confronted, and the day when the Pennsylvania Wilds is utterly reinstated is within view.

The legacy of the Pennsylvania Wilds is one of restoration and resurrection. For nearly a century the efforts of Pennsylvanians have been almost exclusively focused on re-establishing the integrity and diversity of Pennsylvania’s natural patrimony. Professionals from the DCNR and other resources agencies and institutions have spent their entire careers furthering this cause. Yet most Americans are unaware of these achievements of the past century, and these restored forests remain generally out of sight and thought even among Pennsylvanians.

The intent of the Pennsylvania Wilds initiative is to capitalize on the achievements of the past century and to put these remarkable natural resources to work for all of the Commonwealth’s citizens. This is not to say that these forests have not provided important products (wood) and services (recreation) in the past. Yet within the strict bounds of sustainable resource management there remains an astounding miscellany of benefits yet to be realized.

The public lands within the Pennsylvania Wilds are comparable in extent to Yellowstone National Park. Yet the recreations these lands support are limited and constrained. Most recreational activities in the Wilds have originated ad hoc, with little planning or forethought. Therefore a primary goal of the Pennsylvania Wilds initiative is to conduct a detailed assessment of the recreational resources in the region and to develop a specific strategic approach for connecting these resources to growth sectors within the recreational industry. The report that follows represents the achievement of this goal.

INTRODUCTION

The Pennsylvania Wilds encompasses 12 counties in north central Pennsylvania. Although this area is only about one quarter of Pennsylvania, it contains 49% of the public lands, 52% of the Class A native trout streams, and 65% of the state and federal natural and wild areas. Every county in the Pennsylvania Wilds is classified as rural. The population density in the Pennsylvania Wilds ranges as low as 12 person/square mile in Forest County, and averages about 50 persons/square mile across the region. By comparison, the population density for Philadelphia County is 11,234 persons/square mile (2861 in the entire Philadelphia urbanized area), and that for Allegheny County (Pittsburgh) is 1755.

The Pennsylvania Wilds encompasses more than two million acres of public land, the largest aggregation of public land between New York and Chicago. These lands are managed by a variety of resource agencies such as the DCNR, the US Forest Service, and the Pennsylvania Game Commission. The DCNR alone manages 27 state parks and 8 state forests within this region.

The Pennsylvania Wilds harbors a wealth of natural, cultural, and historic resources, but to the general public (even within the Commonwealth) it remains largely unknown. With outdoor recreational activities increasing with the U.S., these resources present Pennsylvania with an opportunity to develop a diverse recreational destination for the traveling recreational market. The challenge is to develop a strategy for enhancing and expanding recreation in the region without sacrificing the resources these recreations depend on or undermining the character of the communities in and around these public lands.

The evolution of a conservation ethic in America has deep roots in Pennsylvania. The Commonwealth's rich natural resources helped fuel a growing nation in the 1800's. By 1920, the forests of the Wilds had been cut over and left for ruin. The horrible conflagrations that raged over the slash-ridden landscape were so severe that rich nutrients were burned from the soil. When Joseph T. Rothrock, a botanist and conservationist, became Pennsylvania's first forest commissioner in 1895, he took office when public officials, lumber companies, and private citizens were beginning to realize that the Commonwealth's forests were not inexhaustible. Under Rothrock's bold leadership, Pennsylvania created state reserves (later called state forests), inaugurated programs to suppress forest fires, and took actions to protect wildlife habitats.

In 1923 Gifford Pinchot, a leading conservationist in the administrations of Theodore Roosevelt and Howard Taft, became governor of Pennsylvania. Like Rothrock, he too instituted large-scale programs to manage and protect the area's forests. Pinchot also worked assiduously to inform the public about the importance of these environmental programs to the well being of the entire Commonwealth. During his administration, the federal government established the 500,000-acre Allegheny National Forest in this region.

The wealth of natural and recreational resources now enjoyed in the Pennsylvania Wilds is a result of the vision of these conservation forefathers. The rivers and forests of the Pennsylvania Wilds, although admittedly still facing environmental challenges, have been restored. Equally important are the wood products and jobs that these forests yield. Yet the very scale of this natural area has worked against expanded public recreational use. Only those willing to piece together their own itinerary and travel information have found easy access to the Pennsylvania Wilds. The task at hand is to develop a more "user friendly" approach to recreation in the region that allows the uninitiated recreationists from adjacent urban centers to enjoy that previously known only to a select few.

Governor Edward G. Rendell launched the Pennsylvania Wilds initiative in late 2003 to encourage the growth of tourism and related businesses in north central Pennsylvania. Governor Rendell based this initiative on the significant outdoor experiences available on over 2.1 million acres of public land in the region. The Governor also established a cabinet-level Task Force to coordinate state agency involvement in the Pennsylvania Wilds. The goal of this effort is to promote recreation and public use while continuing to protect the natural resources of the region. The intent of the Pennsylvania Wilds initiative is to capitalize on the achievements of the past century and to put these remarkable natural resources to work for all of the Commonwealth's citizens.

HISTORY OF THE PROJECT

Elk Scenic Drive

The Pennsylvania Wilds had its origin in the Pennsylvania elk range. The growth of the Pennsylvania elk herd, coupled with expanded opportunities to see wild elk in the Benezette area, attracted travelers to this rural area to experience elk in an intimate setting. As visitation increased it became clear that the area was ill equipped to handle the hordes of visitors that descended on western Elk County. Traffic on narrow, winding roads would often come to a standstill when motorists would stop *in situ* to view elk. Visitors would trespass on private property to get closer views and photographs of elk. Local citizens started viewing the elk more as a nuisance than an asset.

Fermata Inc. was retained in 2001 by the North Central Pennsylvania Regional Planning and Development Commission (NCPRPDC) to study the issue and develop a nature tourism strategy. The primary objectives were to improve visitor services, support the long term ecological needs of the elk herd, stimulate economic benefits for local communities while minimizing conflicts, educate visitors and residents about the stewardship of natural resources, protect the natural integrity of the region, and promote elk watching and other nature tourism activities.

In the summer of 2002, a plan for the elk range was presented to the NCPRPDC. Fermata, working closely with DCNR, found that the elk range is well positioned to capitalize on the economic growth opportunities associated with the growing market for nature tourism. The full report and supporting materials are available at: <http://www.fermatainc.com/pennelk/index.html>

Sinnemahoning Incubator

In its *Plan for Elk Watching and Nature Tourism in North Central Pennsylvania* Fermata recommended a business incubator facility as a pilot project for nature tourism-related entrepreneurial development. The incubator would offer skills training in nature tourism-related activities such as hospitality and backcountry safety and provide a revolving loan fund for development. Fermata suggested that this effort would be a partnership between DCNR and other agencies, with NCPRPDC providing the entrepreneurial assistance, business plan development, and revolving loan fund support for the project. NCPRPDC indicated its interest in assessing and developing the feasibility of such an endeavor.

In early spring 2004, NCPRPDC contracted Fermata to commence a detailed feasibility study of a nature-based business incubator facility at Sinnemahoning State Park. The full report and supporting materials are available at: <http://www.fermatainc.com/penn/index.html>

Cherry Springs Early Implementation Plan

Early Implementation Projects allow DCNR to begin acting on exceptional recreational opportunities and bring new products and programs to the market before the completion of the overall DCNR Outdoor Recreation Plan.

Cherry Springs State Park is a remote, largely undeveloped facility. Named for the large stands of black cherry trees, the 48-acre State Park is surrounded by the 262,000-acre Susquehannock State Forest. The park's isolation, both from users and the public in general, has (even if unintentionally) protected the darkness of its skies. Discovered in the early 1990s by amateur astronomers searching for dark sky sites in the east, Cherry Springs State Park evolved, ad hoc, as a well-recognized destination among a small cadre of skywatchers. In April 2000, DCNR recognized the importance of the dark night sky as a viable resource and designated Cherry Springs as the first Dark Sky Province Park.

Fermata completed the Cherry Springs Early Implementation Report in December 2004. The full report and supporting materials are available at: <http://www.fermatainc.com/penn/index.html>

Pine Creek Early Implementation Plan

The Pine Creek Valley provides a stunning natural landscape for outdoor recreation. The Pine Creek Valley extends from Ansonia at US Route 6 to Jersey Shore, where the creek empties into the West Branch of the Susquehanna River. In this 68-mile section of Pine Creek, a majority of the land is publicly owned and managed by the DCNR and the Pennsylvania Game Commission.

The first 17 miles of Pine Creek Valley is known as the "Pennsylvania Grand Canyon" and is contained within the Pine Creek Gorge State Natural Area. A portion of the State Natural Area is designated as a National Natural Landmark. The gorge owes its character to glacial events that scoured and deepened Pine Creek. The canyon section is the most dramatic representation of these events, but the whole length was subjected to these forces. Leonard Harrison and Colton Point State Parks are located on the rim of the gorge and provide stunning overlooks, picnic areas, and campgrounds for area recreationists. The rest of the area is managed by the Tioga State Forest. Road access to this section is limited to each end (Ansonia and Blackwell) and to a primitive township road that ends at Pine Creek in the historic town of Tiadaghton. Between Ansonia and the Tioga/Lycoming County line, Pine Creek and portions of some of its larger tributaries have been designated as a state scenic river.

South of Blackwell the Pine Creek Valley widens, yet still retains its deep valley character. A greater portion of this area is private land, which has a pastoral character and is dotted with several small communities along its length. Most public land in this area is managed by the Tiadaghton State Forest, with a smaller amount managed by the Pennsylvania Game Commission. The eight State Wild and Natural Areas located along this stretch of Pine Creek offer unique habitats and scenery.

The Pine Creek Valley offers a variety of recreational experiences in developed and primitive settings: canoeing and kayaking, bicycling, hiking, backpacking, quality trout fishing, camping, sightseeing, horseback riding, and picnicking. The public has discovered Pine Creek and on summer weekends, many access areas are filled to capacity. In meetings with the public and DCNR employees, Fermata and DCNR overwhelmingly heard that protection of the character of Pine Creek is critical. The people that live and work here want to keep it a special place, where small, charming businesses are more appropriate than large chain franchises. This was a clear case for the need of active and constant management to ensure resources were not “loved to death.” Therefore Fermata recommended a “low impact, low volume, high yield” tourism model that, while attracting new visitors to the region, limited the impacts that accompanies mass travel. In other words, the goal would be to construct a high yield model one traveler at a time.

Fermata delivered the early implementation report to DCNR in August 2005. The full report and supporting materials are available at: <http://www.fermatainc.com/penn/index.html>

Lumber Heritage Region Interpretive Plan

This interpretive plan for the Lumber Heritage Region aims specifically to capture the essence of the region, and to articulate it through a defined visitor experience and framework of messages that coax the visitor into a deeper appreciation of the natural and cultural heritage. The plan then traces how to transform this framework into specific interpretive vehicles — itineraries and programs — that move people from the region’s gateways to its distant corners, instill in them a deeper appreciation of the region, and motivate them to purchase the region’s heritage-based products. The combined effect of the itineraries is to connect the region’s most significant natural and cultural assets through land and water-based, motor and human-powered interpretive routes.

The Lumber Heritage Regional Interpretive Plan was delivered to the Lumber Heritage Region, Inc. in September 2005. The full report and supporting materials are available at: http://www.fermatainc.com/penn/lumber_heritage.html

DCNR PENNSYLVANIA WILDS RECREATIONAL STRATEGY

The outdoor recreation plan that follows builds upon existing resource inventories and management plans, integrates DCNR and other public lands and programs in a coordinated, region-wide effort, and works toward developing and sustaining a broad-based initiative to stimulate the growth of outdoor and heritage tourism in the Pennsylvania Wilds.

The heritage tourism and interpretive component of this work - that tells the story of the region’s history including landscape scale restoration and today’s sustainable forest management practices – has been completed under a separate scope of services and contract with the Lumber Heritage Region. However, from the beginning it has been intended that the two planning efforts would be accomplished in tandem and that the results of the resource assessments and recommendations for future actions would be fully integrated.

Project Tasks:

- 1) Organize and provide support to advisory and oversight committees.

- 2) Define a discrete *Zone of Influence* for the Pennsylvania Wilds area.
- 3) Inventory the recreational resources.
- 4) Identify and guide the implementation of *Early Implementation Project* opportunities.
- 5) Review and analyze recreation markets and trends.
- 6) Assess recreational opportunities.
- 7) Strategic Plan for developing and enhancing outdoor recreation infrastructure, programming, and staffing.
- 8) Comprehensive Pennsylvania Wilds heritage and recreation strategy that interlinks the Outdoor Recreation Plan and the Lumber Heritage Interpretation Plan.
- 9) Assist DCED Pennsylvania Tourism Office with development of a marketing strategy based on the comprehensive Pennsylvania Wilds strategy.
- 10) Assist DECD and other agencies with developing a conceptual approach and action plan for encouraging sustainable economic development efforts in the Pennsylvania Wilds.

This report represents the Comprehensive Strategy for the Pennsylvania Wilds, as detailed in task 8, and is the culmination of this phase in the development of the Pennsylvania Wilds.

Chapter 2 – General Findings

The DCNR public lands in the Pennsylvania Wilds represent a once-in-a-generation opportunity to connect the public, in a visceral fashion, to the conservation ethic espoused by the agency. In 21st Century America the pathway of choice for people finding nature is recreation. People use what they understand or know (such as the recreational opportunities present in the region), and they value what they use. The DCNR lands in the Pennsylvania Wilds offer this agency a unique opportunity to invite the public into an intimate relationship with the world outside. Through this relationship the public will gain an appreciation for the agency's responsibilities and challenges. More importantly these public lands, once tangential, will become primary contributors to each individual's quality of life. The lands, once discounted, will be seen as having irreplaceable value.

The following are the general findings of the present condition of the Pennsylvania Wilds as determined by Fermata staff.

1) Resources

- a) The abundant natural resources within the Pennsylvania Wilds present DCNR with an unparalleled opportunity to grow and diversify the agency's recreational offerings and public.

2) Recreations

- a) The recreational public within the Pennsylvania market region is much more urban than the traditional customer base of the public lands in the Pennsylvania Wilds. In order to provide quality outdoor recreation experiences to these uninitiated visitors from urban areas, DCNR will need to improve its facilities, visitor information, public outreach efforts, and customer service.
- b) Legacy recreations, such as hunting and fishing, have traditionally connected man to this land. The challenge for DCNR will be in diversifying its recreational constituency and audience without alienating traditional public land users such as hunters and anglers. This immense public landscape offers the agency the luxury of space within which to accommodate a diversity of recreational interests and activities.

3) Communications

- a) The connection between resources and recreations is critically dependent on an effective DCNR communication and public outreach program.
- b) Given the immense landscape, it is not surprising that information about recreational experiences and support facilities is, at times, difficult to obtain within the Pennsylvania Wilds. In many cases detailed information about specific recreational resources appears not to exist.
- c) As an example, signage (informational and interpretive) within state forests is often absent. If present, the quality of the information is often incomplete and dated.

- d) Information related to different bureau and agencies opportunities and regulations is rarely available across bureau and agency boundaries. State forests and parks, game lands, national forest lands, and waters regulated by the Pennsylvania Fish and Boat Commission are all managed under distinctly different sets of practices and regulations. To the traveling recreational public, these differences in rules and regulations are often obscure and difficult to decipher.

4) Staff

- a) Pennsylvania state parks are well-maintained and designed. However, restricted budgets have reduced staffing to a level where significant recreational growth may well stress the system. In truth, Fermata is concerned about the ability of state parks to sustain a level of high quality facilities and staff even without substantial growth in public use. While the Pennsylvania Wilds has ample *natural* resources to support a robust outdoor recreation industry, the limited *human* resources within the state park system may well temper that growth.
- b) Future recreation growth and expansion in the Pennsylvania Wilds will also require additional state forest staff committed to recreation programming, planning, administration, and maintenance. Restricted budgets have curtailed the ability of state forest staff to respond to the rapidly evolving recreational population. As with the state park system, restricted staff represents a significant limitation to future recreation growth and expansion in the Pennsylvania Wilds.
- c) Fermata believes, however, that DCNR should be prepared to act on many of the recommendations within this report in advance of significant increases in staffing. We recognize that the state has already begun to make additional resources available to DCNR in the Pennsylvania Wilds (such as the Wilds recreation team), and with the support of the regional staff we believe that DCNR is capable of moving ahead with the major recommendations in this report. We caution, however, that over the longer term Fermata's staff recommendations will become increasingly critical.

5) Programming

- a) Programming offered by DCNR staff dedicated solely to recreation is generally limited to state parks, with most programming being offered through the bureau's interpretive program. Currently 25% of all interpretive programs offered in the Wilds are recreational, reaching 16,000 of the 65,000 people attending programs in the Wilds. However, within state parks there is ample opportunity to expand those programs offered to the general public. Similar recreational programming within state forests is effectively absent.
- b) Current recreational activities within the Pennsylvania Wilds are limited relative to the recreational public at large. DCNR recreational programming will be necessary to attract a diverse recreational population to the Pennsylvania Wilds.
- c) The public sector presently provides limited recreational programming within the Pennsylvania Wilds. Growth in the recreational offerings on DCNR lands represents an opportunity for the private sector to expand and diversify its services as well.
- d) Potential exists for developing recreational programming partnerships between DCNR, non-profit organizations, and the public recreation sector.

6) Infrastructure

- a) Most recreational investments related to infrastructure have been historically focused on state parks. However, state forests lands offer impressive opportunities for expansion. For the agency to take advantage of this opportunity (expansion of recreational opportunities and offerings on state forest lands) additional infrastructure investments will be required.
- b) Consistency of recreation management varies widely across state forests. Admittedly state forests have a different purpose and mandate than state parks, but the recreational public may well be unaware of these differences.
- c) Recreational trails within the Pennsylvania Wilds provide excellent recreational experiences, and are potentially one of the region's greatest attractions. However, across the system trail quality is inconsistent, with the steepness of some sections contributing to erosion and the surface conditions on others posing potential safety concerns. Admittedly some trails have not been designed for their current use (i.e., timber roads being used for hiking or hunting). As an avenue to many recreational experiences in the Pennsylvania Wilds, certain trails will require significant rehabilitation and improvement.
- d) State forest roads are well-maintained for their intended purposes. However, these roads are frequently used for a variety of recreational activities for which they were not originally intended.
- e) Forest management on state forests is done with sensitivity to recreation and scenic resources. The challenge for state forests is to manage the human resource (the recreational public) with the same sensitivity.

Chapter 3 – Resources

INVENTORY

In order to better gauge the extent and quality of the recreational resources on DCNR lands in the Pennsylvania Wilds, Fermata conducted extensive on-site resource and site assessments. Fermata began this process by conducting interviews with state forest and park managers in the fall of 2004 to learn about their visitors, recreational facilities, and the potential for new opportunities. Through these 18 interviews, Fermata gathered a vast amount of data about recreation on DCNR lands. Recreation facility data was also collected for all of the state game lands, Allegheny National Forest, local rail-trails, and US Army Corps of Engineers. Fermata mined additional information about the Pennsylvania Wilds from books about recreational opportunities, agency and TPA brochures, and agency and organization websites. Fermata entered this information into a Microsoft Access database that provided Fermata and DCNR the ability to compare, contrast and summarize the vast recreational resources in the Wilds. Data gathered during the inventory process is available in Appendix 3.

DCNR Units Interviewed

Unit	Date	Unit	Date
Cornplanter SF, District #14	10/25/04	Denton Hill SP	10/4/04
Elk SF, District #13	9/27/04	Elk SP	9/23/04
Kittanning SF, District #8	10/25/04	Hills Creek SP	10/4/04
Moshannon SF, District #9	10/21/04	Hyner Run SP	10/14/04
Sproul SF, District #10	9/28/04	Hyner View SP	10/14/04
Susquehannock SF, District #15	10/6/04	Kettle Creek SP	10/12/04
Tiadaghton SF, District #12	9/29/04	Kinzua Bridge SP	9/23/04
Tioga SF, District #16	10/7/04	Leonard Harrison SP	10/4/04
Bald Eagle SP	10/1/04	Little Pine SP	10/14/04
Bendigo SP	9/23/04	Lyman Run SP	10/4/04
Black Moshannon SP	10/13/04	Ole Bull SP	10/12/04
Bucktail SP	10/27/04	Parker Dam SP	9/24/04
Chapman SP	11/1/04	Patterson SP	10/4/04

Unit	Date	Unit	Date
Cherry Springs SP	10/4/04	Prouty Place SP	10/4/04
Clear Creek SP	10/29/04	SB Elliott SP	9/24/04
Colton Point SP	10/4/04	Sinnemahoning SP	10/26/04
Cook Forest SP	10/29/04	Sizerville SP	10/27/04
		Upper Pine Bottom SP	10/14/04

GENERAL RESOURCE OVERVIEW FOR THE PENNSYLVANIA WILDS

A general landscape overview or snapshot of the Wilds illustrates a place dominated by nature. Indeed, about 80% of the Wilds is forestland. The forests are primarily hardwoods with scattered white pine and hemlock. The world's finest black cherry grows in the Pennsylvania Wilds. Pennsylvania's largest old growth forests can be found in the Pennsylvania Wilds at the Tionesta Scenic Area on the Allegheny National Forest, and at Cook Forest State Park. The Civilian Conservation Corps planted thousands of acres of conifer plantations in the 1930's to reforest denuded lands.

The lakes in this area are man-made and range in size from less than an acre to over 8000 acres (Allegheny Reservoir acres in Pennsylvania). The Allegheny Reservoir is known as a trophy fishery for northern pike, walleye, and muskellunge. Pennsylvania has more miles of streams and rivers than any other state in the lower 48. There are about 690 miles of Class A Wild Trout streams in the Wilds.

Opportunities for viewing wildlife are abundant and varied. Fisher reintroduction efforts in the state have focused in the Pennsylvania Wilds, and from 1994-98, 190 fishers were released. The river otter reintroduction program began in 1982 in Pennsylvania when biologists transplanted four otters to Kettle Creek from the last remaining population in the Poconos. That successful effort led to reintroductions in Pine Creek and Tionesta Creek. Since 1982, 125 river otters have been released in Pennsylvania, primarily in the northern part of the state. The elk reintroduction program started in 1913 with the release of 50 animals from Yellowstone National Park. Nearly a century of management by the Pennsylvania Game Commission and DCNR has grown the herd to over 500 animals. Beaver were reintroduced in Pennsylvania in 1917 in the East Branch Cowley Run on the Elk State Forest. Since the ban on DDT, Bald Eagles nest in all corners of the Pennsylvania Wilds.

Geologic History

Geologically, most of the Pennsylvania Wilds is located within the Allegheny Plateau, a rolling landscape dissected by streams and rivers. Streams provide topographic relief with the largest rivers cutting deep V-shaped valleys across the landscape. Between the river valleys, the plateau is flat to gently rolling. Elevations range from about 500 feet near Williamsport to almost 2600 feet in Potter

County near Denton Hill. Erosion over millennia has exposed resistant bedrock, typically along the breaks of ridges. Dramatic formations with large cracks, rock outcrops, overhangs, and shallow caves are found near points of ridges with particularly steep slopes. The rock outcrops are primarily found in the western half of the Pennsylvania Wilds. Most of the public lands in the Pennsylvania Wilds are within the Allegheny Plateau.

Parts of Warren, Potter, and Tioga Counties were subject to glaciation. This area has a character similar to the Allegheny Plateau with one major exception - many of the valleys have extensive wetland habitats, such as the Marsh Creek wetlands in Tioga County. The public lands within this geologic region are Hills Creek State Park, Tioga State Forest (partial), Cowanesque Lake, and State Game Lands 37, 197, 282, and 313.

The Ridge and Valley Province is also represented in the Pennsylvania Wilds in Lycoming, Clinton, and Centre Counties. This landscape is dominated by long narrow forested ridges that rise over 1000 feet above the broad valleys. The valleys are mostly private land with a pleasant pastoral landscape. Farming is much more prevalent in this area of the Pennsylvania Wilds. Public lands within this geologic region include Bald Eagle State Park, Tiadaghton State Forest (partial), and State Game Lands 92, 176, 255, 295.

Recreation Assets

Nearly one third of the Pennsylvania Wilds is public land open to a multitude of recreational pursuits. Most of this land is undeveloped, with primitive facilities such as roads and trails providing access to millions of acres. Developed recreation sites at states parks, Corps of Engineer properties, and the Allegheny National Forest offer modern camping, cabins, swimming, picnicking, and boating facilities.

Public Lands for Recreation

Landowner	Acres
State Forest	1,207,641
Allegheny National Forest	513,500
State Game Lands	399,261
State Park	49,379
Corps of Engineers	15,088
TOTAL Acres	2,184,869

There are over two million acres of public land in the Pennsylvania Wilds. More than half is state forest, offering a primitive to semi-developed experience in a natural forested landscape. The Allegheny National Forest provides a range of experiences from primitive to developed settings in a similar setting. State game lands are dispersed and undeveloped, and the types of uses allowed are restricted. State parks offer a semi-primitive to developed experience in a setting that ranges from natural ecosystem to landscaped grounds. At Corps of Engineers facilities, the experience is primarily developed in a landscaped setting.

Lodging on Public Lands

The lodging options on public lands in the Wilds appeal to a broad array of recreationists. In addition to the developed opportunities listed in the table to the right, recreationists can also camp on state forest and national forest land in an undeveloped setting. The addition of a rustic lodge at SB Elliott State Park will further diversify the lodging options. For campers with a preference for developed amenities, a variety of settings are available, from lake and stream side to forested landscapes. Most campgrounds open near the start of trout season in April and close in December when rifle deer season is over. Cabins at Black Moshannon State Park, Denton Hill State Park, Hills Creek State Park, Hyner Run State Park, Ole Bull State Park, Parker Dam State Park, and Sinnemahoning State Park are open year-round.

Site Type	Amount
Group Campsites	31
Rustic Campsites	786
Modern Campsites	911
Modern Campsites w/hookups	1,008
Yurts	8
Camping Cottages	9
Rustic Cabins	86
Modern Cabins	24

There are over 3,836 miles of trail in the Pennsylvania Wilds. Over 75% of these trails are on DCNR lands. Many of the state parks serve as trailheads for the major trail systems on the state forest land:

- ❖ Black Moshannon State Park: Allegheny Front Trail, snowmobile trails
- ❖ Cherry Springs State Park: snowmobile trails
- ❖ Hyner Run State Park: Donut Hole Trail, snowmobile trails
- ❖ Kettle Creek State Park: Kettle Creek Equestrian Trail, snowmobile trails
- ❖ Little Pine State Park: Mid-State Trail, snowmobile trails
- ❖ Lyman Run State Park: ATV trail, snowmobile trail
- ❖ Ole Bull State Park: Susquehannock Trail, snowmobile trails
- ❖ Parker Dam State Park: Quehanna Trail, snowmobile trails
- ❖ SB Elliott State Park: snowmobile trails
- ❖ Sinnemahoning State Park: snowmobile trails
- ❖ Sizerville State Park: Bucktail Path, snowmobile trails

Snowmobile enthusiasts enjoy the most extensive trail system totaling 1,837 miles, with hiking opportunities following with 1,628 miles. The total of bicycle and cross-country ski trail miles gives a false sense of the size of the opportunity because many of these

trails are not suited or designed for bicycle and cross-country ski use. In all cases, the numbers represent where these uses are encouraged or allowed.

The table below summarizes the miles of trail by user by management unit. It is important to note that many trails are open to more than one type of user and the mileage for these trails is shown under each user type. The total in each column represents the total miles of trail opportunity for that user group. Adding all of these columns together will result in an over-estimation of trail miles as many trails are counted more than once. A list of all trails, their mileage and allowable uses is in Appendix 3.

Trail Miles by User Type

Unit Name	Accessible	ATV	Backpack	Bicycle	Equine	Hike	Interpretive	Snowmobile	XC Ski
Allegheny NF	2.66	106.29	148.87			262.18	6.01	366.13	89.92
Bald Eagle SP						12.90			7.50
Bendigo SP									
Black Moshannon SP	0.30		3.30	1.70	0.60	20.40		1.70	17.30
Bucktail SP									
Chapman SP				0.84		7.78		1.13	3.20
Clarion Little Toby Rail Trail				18.00		18.00			18.00
Cherry Springs SP				0.40					
Clear Creek SP						24.63	0.80		3.00
Colton Point SP						2.00			
Cook Forest SP			9.40		4.10	40.00		12.00	10.80
Cornplanter SF						8.31	0.50		6.00
Denton Hill SP				5.00		5.00			5.00
East Branch Clarion River Lake							0.73		
Elk SF			55.88	18.16	38.40	172.57	4.83	92.00	42.56
Elk SP									
Hills Creek SP			0.25			4.25			
Hyner Run SP			0.55			0.55			
Hyner View SP									

Unit Name	Accessible	ATV	Backpack	Bicycle	Equine	Hike	Interpretive	Snowmobile	XC Ski
Kettle Creek SP			0.08	6.90	6.90	8.58	0.40		6.90
Kinzua Bridge SP									
Kittanning SF			1.59			8.59		12.00	
Leonard Harrison SP	1.43			1.43	1.43	3.53			1.43
Little Pine SP			2.15	5.00		16.32			5.00
Lyman Run SP						5.63			
Moshannon SF	7.20		95.70	106.96	88.80	250.27		215.00	193.11
Ole Bull SP			0.25	2.90		5.15		0.40	4.90
Parker Dam SP			1.60	1.14		10.87	0.87	4.95	7.19
Patterson SP			0.25	0.10		0.25			
Prouty Place SP									
SB Elliott SP						2.36			2.36
SGL 14				12.00	12.00				
SGL 24			2.00			2.00			
SGL 25				19.50	19.50				
SGL 28				8.00	8.00				
SGL 29				14.14	14.14	3.64		3.64	3.64
SGL 30				15.50	15.50				
SGL 34									
SGL 44									
SGL 54				8.50	8.50				
SGL 61				13.30	13.30				
SGL 62				1.50	1.50				
SGL 64				1.50	1.50				
SGL 68									

Unit Name	Accessible	ATV	Backpack	Bicycle	Equine	Hike	Interpretive	Snowmobile	XC Ski
SGL 72									
SGL 74									
SGL 75			5.16	16.10	16.10	5.16			
SGL 77				3.00	3.00				
SGL 86				5.90	5.90				
SGL 89			3.38	12.00	12.00	3.38			
SGL 90				6.00	6.00	1.60			
SGL 92				1.50	1.50				
SGL 93				12.00	12.00				
SGL 94				3.20	3.20				
SGL 100				10.50	10.50				
SGL 103									
SGL 114									
SGL 208									
SGL 255				2.00	2.00				
SGL 268				2.00	2.00				
SGL 282									
SGL 283									
SGL 293									
SGL 309									
SGL 311				19.50	19.50				
SGL 313									
SGL 321				10.00	10.00				
Sinnemahoning SP						5.00		5.00	5.00
Sizerville SP			0.14			4.54	0.03	3.00	3.00

Unit Name	Accessible	ATV	Backpack	Bicycle	Equine	Hike	Interpretive	Snowmobile	XC Ski
Snow Shoe Trail Association		20.00		20.00		20.00			
Sproul SF		81.14	134.42	58.21	58.21	207.23		387.75	41.46
Susquehannock SF		43.00	83.24	298.37	21.87	144.36	1.00	254.00	34.57
Tiadaghton SF	52.50	17.10	98.00	141.97	82.45	234.65		304.00	85.12
Tioga SF	17.57		37.51	43.57	39.32	96.77		175.00	35.71
Tuna Valley Trail Association				9.80		9.80			9.80
Upper Pine Bottom SP									
GRAND TOTAL	81.66	267.53	683.72	938.09	539.72	1628.25	15.17	1837.70	642.47

Natural Assets

Site Type	Amount	Unit
Important Bird Areas	192,191	acres
National Historic Register	13	sites
National Recreation Area	23,100	acres
National Recreation Trail	19	miles
National Scenic Trail	107	miles
National Wild & Scenic Rivers	139	miles
State Scenic Rivers	46	miles
Pennsylvania Byways	131	miles
National Scenic Byway	29	miles
National Natural Landmarks	5,293	acres
State Natural Areas	42,879	acres
State Wild Areas	100,084	acres
Federal Wilderness Areas	8,940	acres

The amount and variety of special designated areas speaks to the quality of the experiences available in the Pennsylvania Wilds. Nowhere in Pennsylvania is there a greater concentration of unique and protected landscapes. Regionally or nationally significant ecosystems, like boreal bogs and old growth forests, are better represented in the Pennsylvania Wilds than elsewhere in the state. That these ecosystems survived or recovered from the era of exploitation in the early 1900's conveys their uniqueness and resilience. More importantly, the success of conservation in Pennsylvania is reflected in the Pennsylvania Wilds as evidenced by the reintroduction and subsequent flourishing of extirpated species, the designation of scenic rivers that were once used for transportation and polluted with the effluent of industry, and recognition from private organizations, like Audubon, that these public lands provide critical habitat for wildlife species.

Staffing

Information about staffing and duties was collected for DCNR units. Staffing and recreation facility information is summarized in the following table to allow for comparisons. Fermata has a few observations:

- ❖ In a ratio of time spent on recreation to amount of recreation facilities on state forest districts, the Tioga State Forest is estimated to have spent more time on recreation per each recreation unit. The Susquehannock State Forest is estimated to have spent the least amount of time per recreation unit.
- ❖ In a ratio of time spent on recreation to amount of recreation facilities in state parks, Sizerville State Park is estimated to have spent more time on recreation per each recreation unit. Cook Forest and Bald Eagle State Parks are estimated to have spent the least amount of time per recreation unit.

Unit Name	Staffing Summary							Recreation Summary					
	Total Staff Number	Number Staff with Rec Duties	% of Staff with Rec Duties	Time Spent on Rec (Months)	Rec Months % of Total	% Rec Staff <25% Rec Duties	% Rec Staff >75% Rec Duties	Acres in PA Wilds	Non-motorized Trail Miles	Motorized Trail Miles	# Developed Campsites	# Rental Cabins	2003 Attendance
Cornplanter SF	17							1,352	8	0	0	0	NA
Elk SF	37	25	86	77.3	20	78	9	197,729	173	92	15	0	NA
Kittanning SF	24							10,101	9	12	0	0	NA
Moshannon SF	52	45	86	109.3	22	76	9	187,460	237	215	0	0	NA
Sproul SF	43	43	100	117.2	25	86	12	305,000	192	469	14	0	NA
Susquehannock SF	44	21	48	69.0	14	57	0	261,807	193	297	0	0	NA
Tiadaghton SF	45	17	38	83.6	18	52	41	105,000	232	304	21	0	NA
Tioga SF	49	47	96	222.2	43	36	27	139,192	97	175	13	0	NA
Allegheny NF	160	16	9	241.7	12	15	86	513,500	267	414	832	6	NA
Bald Eagle SP	16	16	100	173.0	100		100	5,900	13	0	169	2	423,853
Bendigo SP Complex	10	10	100	86.0	100		100	3,608	0	0	0	0	207,575
Black Moshannon SP	15	15	100	129.0	100		100	3,481	19	2	77	19	200,983

Unit Name	Staffing Summary							Recreation Summary					
	Total Staff Number	Number Staff with Rec Duties	% of Staff with Rec Duties	Time Spent on Rec (Months)	Rec Months % of Total	% Rec Staff <25% Rec Duties	% Rec Staff >75% Rec Duties	Acres in PA Wilds	Non-motorized Trail Miles	Motorized Trail Miles	# Developed Campsites	# Rental Cabins	2003 Attendance
Chapman SP	11	11	100	107.5	100		100	805	7	1	83	5	143,094
Clear Creek SF	11	11	100	125.0	100		100	1,028	26	0	53	22	191,864
Cook Forest SF	17	17	100	302.0	100		100	7,443	31	12	279	23	734,603
Hills Creek SP Complex	30	30	100	298.0	100		100	2,089	16	0	219	15	513,820
Kettle Creek SP Complex	12	12	100	150.5	100		100	1,925	12	1	149	1	228,219
Little Pine SP Complex	14	14	100	165.0	100		100	2,385	17	1	134	4	179,531
Parker Dam SP Complex	14	14	100	162.5	100		100	1,286	13	6	135	22	147,113
Sinnemahoning SP	9	9	100	92.5	100		100	1,910	0	5	33	1	154,203
Sizerville SP	10	10	100	100.5	100		100	368	2	3	23	0	126,892

APPLIED SITE ASSESSMENT PROTOCOL (ASAP)

The Protocol

People generally are swept with a chaotic wave of sensations when first confronted by nature. Sounds, smells, feelings – sensations that are at once pleasant, at times perplexing or even repulsive. Perhaps the aesthetics of a location (the South Rim of the Grand Canyon) sucks the breath from our chest. Perhaps the feeling of accomplishment colors the experience, such as when a birder finally identifies their first Connecticut Warbler skulking through the brush at Presque Isle. What about a bugling elk sounding through the Eastern Kentucky Appalachian Mountains? In each case, the experience is distinctive. And in each case, we react to the experience in an equally singular fashion. Travelers enter nature to expand upon their life experience, and to extend these singular moments beyond the immediate. We gather or collect experiences through the act of travel. As we gain a familiarity in nature, these once-jarring sensations become increasingly orderly and logical. As each facet of nature is distinct, so are nature travelers equally diverse and practiced. Therefore, when considering the value of any specific natural location as a nature tourism destination, we must first consider how each tourist might react to its discrete set of resources.

Fermata developed and patented the Applied Site Assessment Protocol™ (ASAP) to guide the assessment process. ASAP should not be confused with a biological assessment, since the protocol is interested in weighing sites relative to their tourism, rather than ecological, value. If resources determine visitation, then the better these resources are understood relative to their distinct recreational or appreciative value, the better we can plan for tourism development.

The ASAP protocol assigns values for each intrinsic and extrinsic resource, with 1 being a very unremarkable or degraded resource and 5 being an extraordinary resource. The five modifiers introduce the social and political realities that affect decisions. Sites are valued respective to the market (international, national, regional, or local) and relative to themselves. In the Pennsylvania Wilds, each resource's value was determined by comparing it to similar sites within the Wilds.

ASAP Resource Categories

Intrinsic Resources: Values or traits defined as inherent to a resource that qualify its touristic value. Intrinsic refers to natural, biologic and geologic resources. Intrinsic values include:

- ❖ Landscape
 - Scale: Refers to the scope and grandeur of a site.
 - Integrity: Refers to landscape quality.
 - Aesthetics: Refers to the physical appeal of a landscape.
- ❖ Resource
 - Diversity: Refers to the depth and breadth of the resources at a site.
 - Specialty: Refers to the uniqueness of the resources and whether a site is known or identified for this specialty.
 - Conspicuousness: Refers to the visibility and obviousness of resources at a site.
 - Appeal: Refers to physical attraction of the resources themselves at a site.
 - Scope: Refers to the number of resources at a site and their proportion to the world population.
 - Dynamics: Refers to the predictability of the resource, and whether it is seasonal or episodic.
 - Significance: Refers to the rarity of resources at a site.

Extrinsic Resources: Values or traits defined by ASAP as exterior to a resource that qualify its touristic value. Extrinsic values include:

- ❖ Social: Local and regional support for a site improves its prospects for successful project implementation.
- ❖ Cultural: Often a site's culture links tightly to its natural resources, which can increase the amount of support a site enjoys for project implementation.

- ❖ Historical: A site's history usually interrelates closely with its natural resources. A site with a rich history can add to the diversity of a project.
- ❖ Recreational: Recreational opportunities at a site can enhance a visitor experience. Sites that offer biking and hiking trails and other activities will have a more accommodating, diverse, and comfortable experience than a site that lacks amenities or interpretation.
- ❖ Economic: A site that is economically self-sustaining or offers opportunities for economic development enjoys higher prospects of success than one that either has no sustainable economic opportunities or would face increased costs as a result of project implementation.

Modifiers: Any of a series of variables in the ASAP methodology that modify the qualification of a resource in determining its touristic potential. Modifiers include:

- ❖ Ecological: A site's ecological sensitivity can prevent its recommendation for inclusion.
- ❖ Physical: Physical barriers that prevent or inhibit easy access to the site lessen its suitability for inclusion.
- ❖ Social: Social constraints are those relating to site owners and managers as well as the community.
- ❖ Cultural: Cultural modifiers relate to the area's people and history that could either preclude it from inclusion or a culture that would correlate well with the improvement and would not be negatively impacted.
- ❖ Health & safety: If there are health concerns such as the presence of venomous snakes without reasonable access to an anti-venom or safety concerns such as the lack of safe pull-offs or conditions that would cause a visit to a site to be unreasonably difficult or dangerous.

The Assessment Process in the Wilds

To ensure consistency between Fermata staff performing the assessments, a guide was developed specific to resource features in the Wilds. This guide gives insight as to how values were assigned during each of the field assessments. Field assessment reports can be found in Appendix 4.

- 1) Intrinsic: natural, biological and geologic resources - not facility related
 - a) Scale
 - i) High: large rivers, lakes, deep valleys, large trees, large rock outcrops
 - ii) Low: plateau landscapes, few extended views and vistas
 - b) Integrity: degree of naturalness
 - i) High: wilderness, wild areas, natural areas, exceptional value streams
 - ii) Low: strip mines, heavy deer browse, unmitigated visitor impacts (compacted soils, illegal off road vehicle use, etc), large scale timber harvest, invasive species

- c) Aesthetics
 - i) High: historic structures, vistas, waterfalls, unique natural features, good facility design, well maintained facilities
 - ii) Low: trash and dumping, large scale land alteration, sound of heavy traffic or industry
- d) Diversity
 - i) High: breadth and depth of species, IBA designations, habitat variety, uncommon habitats
 - ii) Low: limited number of species, common species
- e) Specialty
 - i) High: unique habitats, elk, dark skies, well known to enthusiasts
 - ii) Low: common resources and habitats
- f) Conspicuousness
 - i) High: old growth, elk, Bald Eagles, vistas, grand landscapes
 - ii) Low: common species and landscapes
- g) Appeal
 - i) High: all senses engaged, positive experiences, broad appeal
 - ii) Low: few senses engaged, negative experiences, limited appeal
- h) Scope – for the purpose of this project rated same as Diversity.
- i) Dynamics
 - i) High: predictable, four-season attractions, fall foliage, spring blooms, winter snow
 - ii) Low: high disturbance factor leads to random and episodic experiences, single-season attraction, dangerous natural events (flood, fire, tornado)
- j) Significance: for the purpose of this project rated same as Specialty.
- 2) Extrinsic: facility, program, human influenced
 - a) Social
 - i) High: volunteers, EE & I programs, independent designations (IBA, enthusiast rankings), events
 - ii) Low: vandalism, lack of official presence
 - b) Cultural
 - i) High: Native American stories, strong local culture, authentic foods, and architecture
 - ii) Low: homogenous American background
 - c) Historical
 - i) High: artifacts and ruins, significant resources, easily accessed site, historic register designation, well documented, LHIP priority site
 - ii) Low: few remaining artifacts, common resources, remote site, poorly documented
 - d) Recreational
 - i) High: complete and appropriate services and facilities, good design and maintenance, appropriate level of difficulty

- ii) Low: incomplete services and facilities, poor design, neglected facilities, difficulty level inappropriate for common user
 - e) Economic – existing or potential opportunity for economic development
 - i) High: broad appeal, added value
 - ii) Low: viewed as a service normally offered as free, or as part of your tax benefit
- 3) Modifiers
 - a) Ecological
 - i) High: durable resources suited to development and use
 - ii) Low: sensitive resources that limit use or require large investment, T&E species, wetlands, unstable slopes
 - b) Physical
 - i) High: adequate facilities for intended use, ADA, appropriate access to site
 - ii) Low: design does not meet needs of intended users, not ADA, poor access to site (not trails or primitive roads)
 - c) Social
 - i) High: local support for increased development and use/tourism
 - ii) Low: local opposition to tourism, hostile residents
 - d) Cultural
 - i) High: resources that welcome development
 - ii) Low: sensitive resources that preclude development
 - e) Health and Safety
 - i) High: emergency and contact information at site, staffing at site, well maintained, hazards identified and users protected, site development is appropriate to intended use.
 - ii) Low: poisonous plants and animals, unmitigated hazards, hidden hazards, lack of maintenance, lack of appropriate site development, human waste conditions
 - f) Regulatory
 - i) High: regulations reasonably protect resources and support experiences
 - ii) Low: regulations excessive for protection and precludes appropriate uses
 - g) Political
 - i) High: supportive involvement by officials and agencies
 - ii) Low: controversial issue, officials and agency in opposition
 - h) Economic
 - i) High: economic benefit from additional use and tourism
 - ii) Low: economic detriment from additional use and tourism

The Sites Assessed

The following table lists the sites visited for field assessments. Sites for assessment were identified by reviewing all the data gathered during the inventory process. All state parks, natural areas, and wild areas were automatically put on the list for site visits.

Fermata decided that since these sites were removed from the general land base (had specific designation) they were unique in this landscape. We relied on the data gathered to identify other sites for assessment. For example, trail guides provided detailed accounts of the experiences on many trails, and forums on websites also provided information on what users liked and recommended.

It should be noted that field assessments in state parks were broader in nature than the table indicates. Although a recreational activity was initially singled-out for assessment, it became clear that experiencing the whole site was important because of the interconnectedness of the resources and experiences. Not every trail was walked in every state park, but a representative sample was hiked. The resource assessment reports in Appendix 4 provide general narrative on the conditions found and values with notes on each resource and modifier.

Site #	Recreation Experience	Unit Name	Site Name	Lead Assessor	Target Week	Assess Date
1	View/Photograph birds	Bald Eagle SP	Bald Eagle SP	Brenda, Ted	8/1/05	06/06/05, 07/26/05
2	Picnicking	Bendigo SP	Bendigo SP	Brenda	6/27/05	06/28/05
5	Visiting a waterside	Black Moshannon SP	Black Moshannon Bog Natural Area	Joel	7/11/05	07/11/05
4	Picnicking	Black Moshannon SP	Black Moshannon SP	Brenda	7/11/05	07/11/05
80	Day Hiking	Black Moshannon SP	Black Moshannon SP	Joel, Brenda	7/11/05	07/11/05
3	Developed camping	Black Moshannon SP	Campground, Cabin Colony	Brenda	7/11/05	07/11/05
6	View/Photograph birds	Black Moshannon SP, Moshannon SF	Black Moshannon SP, Moshannon SF	Joel	7/11/05	07/11/05
7	Driving for Pleasure & View Scenery	Bucktail SP	Bucktail Trail, PA 120 from Emporium to Lock Haven	Joel, Brenda	9/5/05	09/08/05
9	Developed camping	Chapman SP	Cabin Colony potential	Brenda	6/20/05	06/24/05
10	Winter Activities	Chapman SP	Chapman SP	Brenda	6/20/05	06/24/05
11	Picnicking	Clear Creek SP	picnic areas	Brenda	6/27/05	06/30/05
18	View/Photograph birds	Cook Forest SP	Cook Forest SP	Brenda	7/4/05	07/06/05
15	Canoeing & Kayaking	Cook Forest SP	Cook Forest SP, Clear Creek SP, ANF	Ted, Joel, Brenda	5/30/05	06/01/05

Site #	Recreation Experience	Unit Name	Site Name	Lead Assessor	Target Week	Assess Date
17	View/Photograph wildflowers, trees	Cook Forest SP	Forest Cathedral, Swamp Forest, Seneca Area, Cook Trail Area	Ted, Joel, Brenda	5/30/05	06/01/05
16	Day Hiking	Cook Forest SP	Longfellow Trail, River Trail, Cook Trail	Brenda	6/27/05	06/30/05
19	Backpack Trails	Cook Forest SP, Kittanning SF	North Country Trail	Brenda	8/29/05	09/04/05
20	View/Photograph wildflowers, trees & Day Hiking	Cornplanter SF	Anders Run Natural Area	Brenda	6/20/05	06/24/05
21	Cross-country Skiing	Denton Hill SP, Susquehannock SF	Denton Hill XC Ski Trails	Brenda	8/8/05	08/03/05
30	Backpack Trails & Visit a primitive area	Elk & Moshannon SF	Quehanna Trail, Quehanna Wild Area	Joel	8/14/05	08/18/05
22	View/Photograph birds	Elk & Moshannon SF	Quehanna Wild Area	Joel	8/14/05	08/18/05
23	Day Hiking & Rock Climbing	Elk SF	Fred Woods Trail	Brenda	7/17/05	06/25/05
24	View/Photograph wildflowers, trees	Elk SF	Johnson Run Natural Area	Joel	8/14/05	08/15/05
25	View/Photograph wildflowers, trees	Elk SF	Lower Jerry Run Natural Area	Joel	8/14/05	08/15/05
27	View/Photograph wildflowers, trees & Day Hiking	Elk SF	Pine Tree Trail Natural Area	Joel	8/14/05	08/13/05
26	View/Photograph wildflowers, trees & Cross-country Ski	Elk SF	Wykoff Run Natural Area	Joel	8/14/05	08/17/05
29	Horseback Riding	Elk SF	Thunder Mountain Trail	Brenda	7/17/05	08/18/05
28	View/Photograph other wildlife	Elk, Moshannon, Sproul SF	Elk Scenic Drive	Joel, Brenda	8/14/05	08/16/05
31	Developed camping	Hills Creek SP	Cabin Colony	Brenda	8/1/05	08/01/05
32	Developed camping	Hyner Run SP	Campground	Brenda	6/27/05	07/02/05
33	Hanggliding	Hyner View SP	Developed Overlook	Brenda	6/27/05	07/02/05
34	View/Photograph natural scenery	Hyner View SP	Developed Overlook	Brenda	6/27/05	07/02/05
35	Horseback Riding & Mountain Biking	Kettle Creek SP, Sproul SF	Equestrian Trail	Brenda	7/24/05	08/25/05
36	Driving for Pleasure	Kinzua Bridge Scenic Byway	Kinzua Bridge Scenic Byway	Brenda	6/27/05	06/28/05

Site #	Recreation Experience	Unit Name	Site Name	Lead Assessor	Target Week	Assess Date
37	Historic Sites	Kinzua Bridge SP	Kinzua Viaduct	Brenda	6/27/05	06/28/05
38	View/Photograph natural scenery & Rock Climbing	Kittanning SF	Beartown Rocks	Joel, Brenda	5/30/05	06/02/05
39	View/Photograph birds	Kittanning SF	Callen Run Research Area	Joel	7/11/05	07/13/05
42	Day Hiking	Little Pine SP	Panther Run Trail	Brenda	8/1/05	07/28/05
43	Day Hiking	Lyman Run SP	Trail system	Brenda	8/8/05	08/02/05
44	Backpack Trails	Moshannon SF	Allegheny Front Trail	Joel	8/29/05	09/01/05
45	View/Photograph wildflowers, trees	Moshannon SF	Marion Brooks Natural Area	Joel	8/14/05	08/14/05
47	Developed camping	Ole Bull SP	Ole Bull SP	Brenda	7/24/05	08/05/05
48	Developed camping	Parker Dam SP	Campground, Cabin Colony	Brenda	7/11/05	07/12/05
49	Developed camping	Sinnemahoning SP	Campground	Brenda	7/17/05	08/22/05
50	Picnicking	Sizerville SP	Sizerville SP	Brenda	6/27/05	06/28/05
51	Backpack Trails & Visit a primitive area	Sproul SF	Chuck Keiper Trail, Burns Run & Russell P Letterman Wild Areas	Joel, Brenda	8/29/05	07/17/05, 08/30/05
56	View/Photograph wildflowers, trees	Sproul SF	Cranberry Swamp Natural Area	Joel	8/29/05	08/31/05
53	Horseback Riding & Mountain Biking	Sproul SF	Eagleton Mine Camp	Brenda	7/17/05	07/27/05
57	View/Photograph wildflowers, trees	Sproul SF	East Branch Swamp Natural Area	Joel	8/29/05	08/31/05
54	Stargazing	Sproul SF	Fish Dam Overlook	Brenda	6/27/05	07/02/05
58	View/Photograph birds	Sproul SF	Tamarack Swamp	Joel	8/8/05	08/09/05
55	View/Photograph wildflowers, trees	Sproul SF	Tamarack Swamp Natural Area	Joel	8/8/05	08/09/05
52	Canoeing & Kayaking	Sproul SF	WB Susquehanna River	Joel, Brenda	7/11/05	07/14/05, 09/08/05
59	Horseback Riding & Mountain Biking	Sproul, Tioga, Susquehannock, Tiadaghton SF	Keystone Mountain Country Trail	Brenda	8/1/05	08/04/05
81	Driving for Pleasure	Susquehannock & Sproul SF	SR 144	Joel, Brenda	9/5/05	09/06/05
62	View/Photograph wildflowers, trees & Day Hiking	Susquehannock SF	Forrest H. Dutlinger Natural Area	Brenda	8/8/05	07/16/05, 08/09/05

Site #	Recreation Experience	Unit Name	Site Name	Lead Assessor	Target Week	Assess Date
60	Backpack Trails	Susquehannock SF	Mount Brodhead Trail	Brenda	7/24/05	08/23/05
61	Backpack Trails & Visit a primitive area	Susquehannock SF	Susquehannock Trail, Hammersley Wild Area	Joel, Brenda	8/8/05	07/16/05, 08/12/05
68	View/Photograph wildflowers, trees	Tiadaghton SF	Algerine Swamp Natural Area	Joel	8/8/05	08/11/05
67	View/Photograph wildflowers, trees	Tiadaghton SF	Bark Cabin Natural Area	Joel	8/8/05	08/10/05
69	View/Photograph wildflowers, trees	Tiadaghton SF	Lebo Red Pine Natural Area	Joel	8/8/05	08/10/05
70	View/Photograph wildflowers, trees	Tiadaghton SF	Miller Run Natural Area	Joel	8/8/05	08/10/05
79	Visit a primitive area	Tioga SF	Asaph Wild Area	Joel	8/8/05	08/11/05
77	View/Photograph wildflowers, trees	Tioga SF	Black Ash Swamp Natural Area	Joel	8/8/05	08/11/05
78	View/Photograph wildflowers, trees	Tioga SF	Reynolds Spring Natural Area	Joel	8/8/05	08/11/05

Chapter 4 – Recreation Markets

EXECUTIVE SUMMARY

A critical component of the DCNR strategic recreation plan is to assess recreational trends in Pennsylvania and the larger market region (Pennsylvania and the adjacent five states), as well to identify those recreations where DCNR has significant opportunities to connect to a broad constituency of recreational interests. A full copy *Outdoor Recreation in the 21st Century: The Pennsylvania Wilds* can be downloaded at: <http://www.fermatainc.com/penn/index.html>

To determine recreational trends within the region Fermata contracted with the USDA Forest Service, Recreation, Wilderness, Urban Forest, and Demographic Trends Research Group for access to the data collected for the National Survey on Recreation and the Environment (NSRE). From an initial base of 80 recreations, Fermata selected 41 outdoor recreations that were felt to be appropriate for analysis. Fermata believed it important to focus on those recreations that were clearly dependent on the natural resources contained within DCNR lands. Using trend data Fermata projected the respective recreational populations within Pennsylvania and the adjacent five states in 2015, highlighting those recreations with significant positive growth rates and sizable projected populations. The trend reflects growth in the past ten years, and the 2015 projection assumes continued growth at the same rate. Stargazing and hang gliding are not listed since trend and population data for these recreations are lacking.

However, Fermata believed that the 41 recreations would better be analyzed when grouped according to the natural resource on which they depended. For example, swimming is dependent on clean and accessible water, and hunting is possible only with adequate wildlife populations. Therefore we next organized these 41 recreations in five resource-derived genres or brands. Each of the recreations within a specific “brand” is related by dependence on a single natural resource - sky, water, wildlife, woods, and ways (byways or ways of life). Within each discrete brand Fermata then ranked the recreations by the growth rate and the recreational population (market) projected by 2015.

The creation of these five resource brands, as well as the ranking of recreations within each brand according to its growth rate and projected 2015 population, represented a critical step forward in developing a strategic recreation plan for the Pennsylvania Wilds. First, Fermata recognized that DCNR has limited resources to implement such a plan. This structure would allow DCNR to prioritize its expenditures over time, and to invest only in those recreations and resources where there is reasonable (and demonstrated) opportunity for success. Second, the 41 outdoor recreations involve diverse populations and constituencies. For DCNR to develop a broader base of social and political support, key recreations needed be identified for higher priority investment. Third, certain recreations are well represented in the Pennsylvania Wilds, while others are only minimally present. By identifying the opportunities within each recreation, the Commonwealth would be able to broaden its appeal to a broad diversity of recreationists and take advantage of recreations that to date have been only peripherally available. Finally, outdoor recreations based on natural resources depend on the continued conservation of those resources for their viability over time. Fermata believes that the DCNR conservation

ethic would be reinforced by focusing only on those recreations dependent on those conserved natural resources of the Pennsylvania Wilds.

For the purposes of this report and the specific recommendations regarding DCNR lands, however, Fermata has set these resource brands aside and has focused on a more restricted set of recreational activities. DCNR felt it more useful to organize the recreations by similarity in action or activity rather than in resource. The summary table that follows in this chapter represents Fermata's understanding of which recreations present DCNR with the best opportunity to expand and diversify its recreational audience.

To this end Fermata has adopted the following market segmentation scheme to guide its work in the Pennsylvania Wilds. From the outset we recognized that certain segments of the recreational population were well represented in the Pennsylvania Wilds (Motorized Consumptive, for example) while others are either absent or under represented (Nature Lovers). The approach that Fermata has adopted relies on an ability to connect certain DCNR resources to specific recreations and the populations involved in those recreations. In order to diversify and expand the recreational population attracted to DCNR lands, it is critical to understand the broadest set of opportunities these lands provide.

Additionally, DCNR wishes to open its lands to all Pennsylvanians, not just those who may have recreated within the Pennsylvania Wilds in the past. To do so the agency will be required to invest in improvements intended to serve those underrepresented segments of the population. For example, many potential recreationists within the region's urban centers have little exposure to or experience with wilderness-based recreations. Long-distance hiking, wildlife viewing, hunting, kayaking, and primitive camping are examples of recreational activities that depend on "wild" landscapes. To attract these uninitiated recreationists to the Pennsylvania Wilds and DCNR lands the agency will need to facilitate and nurture their participation.

OUTDOOR RECREATION MARKET SEGMENTATION

The outdoor recreation market in the U.S. is characterized by the NSRE in the following eight segments:

❖ Inactives

- Least active outdoor segment in American Society.
- Walking is the only activity in which more than half participate.
- Disproportionate more female, more Black and Hispanic, older, have lower incomes, and more foreign born.
- All recreation ratios lower than 1.0. In other words, Inactives participate in all outdoor recreations at a rate lower than the national average.

❖ Passives

- Limited set of preferred recreational activities (compared to none for the Inactives).
- Prefer low-intensity, low-commitment recreations such as sightseeing, driving for pleasure, walking for pleasure, attending family gatherings, and picnicking.

- Relatively high proportions of females, Blacks, and people 65 and older.
- Otherwise, this group mirrors the national population.

❖ **Nonconsumptive Moderates**

- More expansive set of preferred recreational activities than Passives or Inactives.
- Favored activities include visiting a beach, visiting a nature center, mountain biking, and swimming in lakes and ponds.
- Most of the non-favored activities are either consumptive or motorized.
- Gender equivalent, young relative to general population, disproportionately Hispanic, with moderate incomes.
- Disproportionate representation in New England, Middle Atlantic, and South Atlantic regions.

❖ **Nature Lovers**

- Relatively large percentages involved in viewing/learning activities (birding, wildflowers and other plants, wildlife, natural scenery, fish).
- Also prefer visiting nature centers and museums, sightseeing, and driving for pleasure.
- Do not favor strenuous or consumptive activities.
- Disproportionately female (60%), over 45 (60%), with more Hispanic participation than most other segments.
- Rural, with disproportionate representation in West North Central states (Minnesota and the Dakotas) and the Mountain states (Colorado, Wyoming, and Utah).

❖ **Water Bugs**

- Attracted to water as a recreational venue, and participation in water-based activities is the distinguishing characteristic of the group.
- Also prefer look-and-learn activities such as viewing/photographing nature, visiting nature centers, sightseeing, and driving for pleasure.
- Do not favor consumptive or motorized recreations.
- Unlike Nature Lovers, Water Bugs are middle aged, higher proportion with upper incomes, disproportionately from New England, Middle Atlantic, South Atlantic, and Southern Coastal states.

❖ **Backcountry Actives**

- Participate at a higher than national average in most recreations.
- Defined by high participation rates (greater than 2.5 times the national average) in backpacking, primitive camping, visiting wilderness, day hiking, cross-country skiing, and camping in developed areas.
- Disproportionately male, White, rural, middle income, and from Mountain and Pacific states.

❖ **Motorized Consumptive**

- Disproportionately involved in hunting, fishing, and motorized activities.
- Disfavor look-and-learn activities.
- Compared to Outdoor Avids, substantially lower rates of participation in physically demanding or challenging activities.
- Predominantly male (85%), White, young (60% <35, 39% <25), and middle income.
- Disproportionately rural, from Midwest and South.

❖ **Outdoor Avids**

- Highest participation rates of any segment, with nine activities five times greater than the national average.
- Prefer recreations that demand skill and physical exertion.
- Examples include canoeing, scuba diving, windsurfing, waterskiing, cross-country skiing, rowing, rafting, and kayaking.
- Disproportionately male (62%), White (87%), under 45 (80%), and upper income.
- From New England, West North Central, East North Central, and Mountain states.

Of these five “committed” segments (whose participants are committed to forms of outdoor recreation as a meaningful leisure activity), “motorized consumptives” are the best represented (and invested) in the Pennsylvania Wilds. The most significant growth opportunities for DCNR, therefore, are in those segments where the resources of the Pennsylvania Wilds offer abundant recreational opportunities and where these market segments are currently underserved

FINDINGS

- 1) Outdoor recreation, rather than a special or niche interest, is a passion shared by most Americans. According to the Outdoor Industry Association (OIA), 71.6% of Americans age 16 and older participated in outdoor recreation in 2004.
- 2) Outdoor recreations and their participants, however, are not equally distributed across the landscape. There are distinct and measurable differences between male and female, old and young, white and minority, rural and urban.
- 3) The Pennsylvania Wilds is situated in one of the most rural areas of Pennsylvania (of the eastern U.S., for that matter). Traditional recreational activities in the Pennsylvania Wilds have been similar to those seen in rural populations in the Commonwealth as a whole (small game hunting, big game hunting, snowmobiling, driving off-road, coldwater fishing, primitive camping, gathering mushrooms and berries). However, as the market region for the Pennsylvania Wilds expands beyond this traditional base more urban recreationists are introduced to the region. Therefore the recreations preferred by urbanites will present significant opportunities to DCNR for enhancement and development. These include the following selected recreations, with percent of total recreational population that is urban:
 - a) Horseback riding (86.7%)

- b) Visit waterside other than beach (86.7%)
 - c) Visit historic sites (86.3%)
 - d) Bicycling (85.7%)
 - e) Kayaking (85.7%)
 - f) Swimming outdoors (84.6%)
 - g) Visit nature centers (84.2%)
 - h) Sightsee (84%)
 - i) Mountain biking (83.6%)
 - j) Cross-country skiing (83.4%)
 - k) Scenic driving (83%)
 - l) Developed camping (82.9%)
 - m) Canoeing (82.1%)
 - n) View/photograph birds (82%)
- 4) The outdoor activities with the largest populations are those look-and-learn activities that require limited physical exertion: view/photograph wildlife, picnicking, view/photograph natural scenery, visit nature centers, scenic driving, visit historic sites, sightseeing, and view/photograph wildflower, trees.
 - 5) Legacy activities (those outdoor recreations that are traditional in the U.S.) such as hunting, fishing, hiking, and camping remain strong interests within Pennsylvania and the adjacent five states. Growth rates in many legacy activities, however, are sluggish. Specific recruitment efforts in partnership with the Pennsylvania Game Commission and the Pennsylvania Fish and Boat Commission may be needed to help bolster these growth rates.
 - 6) Relatively new recreations such as driving off-road, snowmobiling, hang-gliding, geocaching, kayaking, and trail running (a refashioned legacy activity) enjoy small populations but robust growth.
 - 7) Approximately 50% of American outdoor recreationists are only passively involved in outdoor recreation (Passives, Inactives, Nonconsumptive Moderates). Minorities, women, and the elderly are disproportionately represented in these passively involved segments of the outdoor recreation market. In order for DCNR to reach out to these underserved populations, new programs and products, particularly in urban parks, will need to be developed and implemented.
 - 8) In most outdoor recreation categories, enthusiasts consume the vast majority of recreation days, and therefore have a higher per-capita economic impact in areas where they recreate. Enthusiasts also tend to be opinion setters, and are therefore

disproportionately influential in their respective recreations. Focused marketing strategies will be required to connect with these segments of the recreational market.

- 9) The active half of the recreational market is engaged in an impressively diverse collection of recreations. Many of these recreations are appropriate for the Pennsylvania Wilds. Marketing to these recreationists will be best approached in a targeted, strategically focused fashion that relies on a variety of marketing tools in addition to general advertising.
- 10) This diversity of recreational activities will demand that DCNR staff be better educated and trained in providing recreational opportunities at the park and forest level. To expand DCNR offering beyond the traditional legacy recreations will demand the active participation of a broad spectrum of DCNR personnel.

SUMMARY OF ACTIVITY MARKETS AND POPULATION SEGMENTS

Recreation	Scale (millions)	Trend (95-04)	Fermata Priority	Primary Outdoor Recreation Market Segment
Camping				
Developed camping	9.7	33%	1	Backcountry Actives
Primitive camping	5.2	18%	1	
Heritage Tourism				
Visiting historic sites	21.1	8%	1	Passives
Visit prehistoric/archaeological sites	8.3	18%	2	
Motorized Consumptive				
Big game hunting	3.4	17%	1	Motorized Consumptives
Small game hunting	2.6	8%	1	
Migratory bird hunting	0.5	-8%	2	
Off-Road Driving	6.9	24%	3	
Sightseeing				
Visiting an Interpretive Center	24.6	8%	1	Inactives, Passives, Nonconsumptive Moderates, Nature Lovers
Driving for pleasure	23.6	NA	1	
Sightseeing	22.7	-5%	1	
Trails and Roads				
Road biking	16.8	37%	1	Backcountry Actives,

Recreation	Scale (millions)	Trend (95-04)	Fermata Priority	Primary Outdoor Recreation Market Segment
Day hiking	13.7	37%	1	Outdoor Avids
Backpacking	3.7	23%	1	
Visiting a wilderness or primitive area	12.6	NA	1	
Mountain Biking	9.1	NA	1	
Horseback riding	2.6	NA	1	
Viewing Activities				
View/photograph other wildlife	20.1	47%	1	Nature Lovers, Passives, Nonconsumptive Moderates
View/photograph natural scenery	26.9	NA	1	
View/photograph wildflowers, trees	19.9	NA	1	
View/photograph birds	14.9	27%	1	
View/photograph the sky (stargazing)	NA	NA	1	
View/photograph fish	10.2	86%	2	
Water Activities				
Visiting a waterside	10.4	3%	1	Water Bugs, Outdoor Avids
Coldwater fishing	5.3	24%	1	
Canoeing	4.0	24%	1	
Kayaking	1.4	169%	1	
Swimming in natural waters	18.3	4%	2	
Warmwater fishing	8.2	10%	2	
Winter Activities				
Snowmobiling	2.2	21%	1	Motorized Consumptives, Backcountry Actives
Cross-country skiing	1.5	-1%	1	
Sledding	8.2	26%	2	
Ice fishing	0.6	24%	2	
Snowshoeing	0.4	NA	2	

Data source: National Survey on Recreation and the Environment

Fermata Priority: 1 = Promote and expand, 2 = Status quo, 3 = Low profile, divest or discourage

Chapter 5 - Recommendations

INTRODUCTION

The following chapter offers specific recommendations related to the expansion and diversification of outdoor recreation on DCNR lands within the Pennsylvania Wilds. Attracting a more diverse recreational clientele will require DCNR to offer information specific to diverse recreational needs, to provide additional infrastructure to accommodate those new recreational activities, and to promote sites that are currently prepared to receive new recreationists. Putting experienced recreation professionals at all levels of the DCNR will ensure the efficient and effective implementation of these recommendations.

The recommendations are divided into two sections:

- 1) Broad recreation program management recommendations that apply to the Pennsylvania Wilds region.
- 2) Model site recommendations.

Within each section, recommendations for various aspects of the DCNR recreation program, such as programming, infrastructure, staffing, information, interpretation and policy, are provided in detail.

We are concerned, however, that a basic philosophy or approach for recreational development on DCNR lands not be drowned in the flood of detail that follows. As stated in Chapter Two, *the DCNR public lands in the Pennsylvania Wilds represent a once-in-a-generation opportunity to connect the public, in a visceral fashion, to the conservation ethic espoused by the agency. In 21st Century America the pathway of choice for people finding nature is recreation. People use what they understand or know (such as the recreational opportunities present in the region), and they value what they use. The DCNR lands in the Pennsylvania Wilds offer this agency a unique opportunity to invite the public into an intimate relationship with the world outside. Through this relationship the public will gain an appreciation for the agency's responsibilities and challenges. More importantly these public lands, once tangential, will become primary contributors to each individual's quality of life. The lands, once discounted, will be seen as having irreplaceable value.*

Fermata recognizes the need to translate this philosophy into actionable detail, but we offer this cautious reminder of the philosophical underpinnings of the Pennsylvania Wilds initiative. We believe that recreation coupled with interpretation is the critical process through which the public is connected to this agency and its lands. Neither recreation nor interpretation should be treated as independent or isolated endeavors or interests within the agency. Recreation is the pathway for most Americans to nature, and interpretation supplies *in situ* meaning and enlightenment to the recreational experience. The critical position that DCNR should occupy is at the nexus of these two forces – recreation and interpretation.

The following are general recommendations address the needs identified in Chapter 2 before considering the detailed recommendations presented later in this chapter.

Resources

Returning to Chapter 2, the first finding related to the wealth of natural resources and recreational opportunities contained within DCNR lands in the region. Chapter 3 outlines the site assessments conducted by Fermata staff and the protocol used to assess these resources. Yet what is obvious to even of most uninitiated visitor is the overwhelming scale of the landscape. For example, consider the public lands of the Pennsylvania Wilds (approximately 2 million acres) compared to the following national parks:

- ❖ Yellowstone National Park – 2.2 million acres
- ❖ Yosemite National Park – 761,000 acres
- ❖ Great Smoky Mountains National Park – 521,000 acres

Within this immense area the agency is afforded the opportunity to offer a broad array of outdoor recreational opportunities that would otherwise be limited in a more cramped or restricted space. Of the potential challenges faced by DCNR in broadening its recreational appeal in the Pennsylvania Wilds, a lack of natural resources will not be one.

Recreations

Chapter 4 describes the recreational trends for the market region (Pennsylvania and the adjacent five states). As demonstrated in Chapter 4 and the earlier recreational trends report, recreation is a diverse and expanding pastime. Yet much of this growth is taking place in recreations that have a tentative presence within the Pennsylvania Wilds. Therefore Fermata is urging DCNR to focus its attention not only on those traditional recreations that have dominated the landscape (hunting, fishing, camping) but to expand its reach to include these new growth recreations such as kayaking, mountain biking, and wildlife viewing and photography. Fermata believes that DCNR can expand its recreational offerings without abandoning its traditional supporters. Therefore Fermata recommends that DCNR study the recreational trends chart in Chapter 4 and develop specific programs and products for those high-priority recreations such as the following:

- ❖ Visiting nature/interpretive centers
- ❖ Sightseeing/scenic driving
- ❖ Biking (mountain, single track, road)
- ❖ Hiking/backpacking/primitive camping
- ❖ Viewing activities, such as viewing/photographing birds, wildlife, and natural scenery
- ❖ Canoeing/kayaking

Legacy Recreations (Hunting and Fishing)

While recognizing the changing complexion of American outdoor recreation, Fermata urges DCNR to not overlook its traditional base. We believe that legacy activities such as hunting and fishing represent potential growth areas as well. In addition, participants in these recreations represent an important base of support for the agency as well as for local communities and businesses. Fishing, in particular, has demonstrated an ability to adapt to the changing social environment, and specialties such as fly fishing may be important sources of expansion and recruitment.

DCNR, we recognize, already provides citizens of the Commonwealth with an impressive variety of public hunting and fishing opportunities. In the Commonwealth, DCNR provides public access to 2.4 million acres of DCNR land for hunting and fishing, leases 3000 sites for hunting camps and cabins, opens 500 miles of forest roads for hunting, and maintains important habitat for game species through food plots and other forms of habitat management.

Yet we believe there are additional opportunities, particularly within the Pennsylvania Wilds, to expand public hunting and fishing opportunities while elevating the quality of the recreational experience itself. We do recognize that the Pennsylvania Game Commission and the Pennsylvania Fish and Boat Commission are the agencies that have primary responsibility for hunting and fishing in the Commonwealth. While DCNR provides access to the lands and waters where these recreations take place, the involvement of its sister agencies will be critical to any effort to expand and enhance hunting and fishing experiences within the Pennsylvania Wilds.

We also note that winter recreations such as snowmobiling and cross-country skiing are important seasonal recreations, but the inconsistency of snow in the region tempers our enthusiasm relative to potential growth in the region.

Finally, those activities related to the history and culture of the region are dealt with in the Lumber Heritage Region Interpretive Plan.

As with resources, the paucity of a recreational population is not a concern for the agency. The focus should be on how to best reach the broadest cross-section of society with the impressive DCNR public land resources and expanding recreational population at hand.

Communications

The connection between resource and recreation is communications. Without an effective communication strategy the Pennsylvania Wilds will continue to languish in obscurity. In this chapter Fermata will offer a host of recommendations about how to improve the communications tools and practices relative to outdoor recreation in the Pennsylvania Wilds. In truth, the development of a high-quality communication and outreach program is far easier today with the technologies that are now available. The internet, real-time imagery, podcasts, and blogs are all examples of high-tech tools that are at the agency's disposal. However, there is little use in speaking if no one is listening. Therefore we will offer a number of suggestions in the following pages about how to best raise the profile of the Pennsylvania Wilds, the public lands of DCNR, and the agency itself. Recommendations such as the development and

installation of a universal interpretive sign detailing the agency's history, its ethic, and its responsibilities are simple, cost-effective beginnings.

Staff

Fermata has studied staffing levels and requirements in all of the state forests and parks within the Pennsylvania Wilds. The results of these studies are incorporated into this report. However, one fact derived from this research stands out above the rest. For DCNR and the Pennsylvania Wilds to expand and diversify its recreational offerings and opportunities, additional staff will be required. Budget constraints have reduced staffing in certain areas to a point where any additional public use will severely stress the system. In addition, staff with recreational training and experience will be needed throughout the DCNR lands. Fermata is recommending the creation of recreation units (aggregations of state forests and parks) as a cost-effective approach to adding recreational staff to the region. In addition, recreational units allow the agency to begin to view recreation and public use across bureau boundaries. What is most important for the agency and the Commonwealth to consider, in the simplest expression, is that additional staff will be demanded if the Pennsylvania Wilds is to offer the world the highest-quality recreational experiences.

Fermata also believes that DCNR should be prepared to act on these recommendations in advance of significant staff increases. Additional resources already have been invested by the state to the Pennsylvania Wilds (such as the Wilds Recreation Team). With the cooperation of regional staff, opportunities may exist to better allocate personnel and resources. However, over the longer term we caution that even with the best of effort, the present level of DCNR staff will be stretched to a point where service may suffer.

Programming

Many of the legacy recreations in the region, such as hunting and fishing, are practiced by experienced, independent recreationists. In order to reach out to a more uninitiated population, DCNR will need to offer a wide range of recreational programming at its state parks and forests. In this chapter Fermata offers recommendations for how DCNR should develop programming with its own staff, with the private sector, and in partnership with non-profit organizations and the public recreation sector. Facilitation and nurturing of the recreational experience will be required to attract these underrepresented and underserved segments of the population to the Pennsylvania Wilds. Programming should range from basic skills training (how to pitch a tent, how to tie a fly) to offering more intensive long-distance hikes and canoe trips.

We believe that expanded recreational programming related to legacy activities would be beneficial where hunting and fishing have been traditional forms of outdoor recreation. Partnerships with sister agencies such as the Pennsylvania Game Commission and the Pennsylvania Fish and Boat Commission would be important in developing such programming. In addition, area sportsmen's clubs (as represented by organizations such as the Pennsylvania Federation of Sportsmen's Clubs), as well as not-for-profits such as the Rocky Mountain Elk Foundation and Trout Unlimited, should be invited to participate in developing additional programming and training for legacy activities in the Pennsylvania Wilds.

Infrastructure

Most of the Pennsylvania Wilds is undeveloped, particularly the state forests. The region's "wild and natural" state is among its chief appeals to recreationists. Fermata believes that infrastructure improvements (and recreations) that would undermine this natural state should be discouraged. However, the critical connection to these wilderness experiences is the system of trails and roads that honeycomb the region. Therefore Fermata has offered what seems to be a disproportionate number of recommendations related to trail design and construction, trail and road signage, horseback trails and facilities, and state forest road development and maintenance (to offer only a few examples). For the Pennsylvania Wilds to remain true to its "wilds" character, and for DCNR to continue its commitment to sustain the natural qualities of its public lands, the hand of man will always be light in this area. Therefore Fermata believes that special attention must be paid to the few built amenities that are required to facilitate public access to the region.

SUGGESTIONS FOR SETTING PRIORITIES

The implementation of this recreational strategy will, in itself, generate unanticipated and unexpected results. The agency should expect new ideas and suggestions to be spawned now that attention is being focused on an enhanced recreational strategy in the region. Users groups will promote their ideas for expanding their own individual opportunities. Evaluation criteria can help managers quickly assess the appropriateness or urgency of new ideas and requests. Fermata developed the following criteria to assist DCNR with analyzing the appropriateness of new recreations and applications. Fermata recommends that the agency use these criteria to form the basis of an evaluation tool to guide decision making.

- 1) Does DCNR possess the resources to provide a quality experience for the recreation in question? Is the quality of these resources consistent, or is the quality intermittent or unpredictable?
- 2) Is this recreation compatible with other recreations, allowing DCNR to offer a diversity of recreational opportunities within the same management unit in the same season?
- 3) Is the anticipated recreational impact on the resource projected to be within acceptable maintenance and management limits? Is this impact compatible with the DCNR conservation ethic and commitment?
- 4) Is this recreation exhibiting positive growth, particularly in Pennsylvania and the adjacent states?
- 5) Is there a significant population, relative to the outdoor recreation market in general, involved in this recreation in Pennsylvania and the adjacent states?

BROAD RECOMMENDATIONS

Broad recommendations are organizational in nature rather than site specific. The recommendations that follow provide guidance for recreation management, policy and procedure development, recreation information needs, interpretation and programming for the entire Pennsylvania Wilds region.

Summary of Broad Recommendations

Recommendation	Priority
1) Recreation Staff	
a) Team Concept	High
i) Wilds Recreation Team	High
ii) Recreational Unit Teams	High
b) Staff Recommendations	High
i) DCNR Recreation Leader	High
ii) Bureau Recreation Planners	High
iii) Unit Recreation Planners	High
iv) Outreach Staff	High
v) Trail Maintenance Crew	High
2) Interpretation	High
a) DCNR Conservation Panels	High
b) Implement Lumber Heritage Region Interpretive Plan	High
3) Recreational Programming	
a) DCNR Recreational Programming	High
b) Private Sector Recreational Programming	High
c) Non-profit Organization and Public Recreation Sector Programming	High
4) Recreation Information	
a) DCNR Recreation Printed Information	High

Recommendation	Priority
b) DCNR Website	High
c) Visitor Information at Offices	High
d) Signing	High
e) Collateral Materials	High
f) VisitPA Website	High
g) Information Packets	Medium
5) Planning Foundations	
a) Quality Guidelines	High
b) Recreation Opportunity Spectrum	Medium
6) Accessibility	
a) Maintenance	High
b) Information	High
7) Private Sector Strategy	
a) Outfitters and Guides	High
b) Concessionaire Operations	High
c) Permits and Procedures	High
8) Revenue	
a) Recreation Fee Program	Medium
b) Revenue Ideas	Medium

Recreation Staff

Team Concept

Priority: High

Adaptive management is an effective approach for guiding recreation management. Simply defined as feedback-reflection-revision, adaptive management is particularly appropriate in managing the constantly changing and highly complex social and biological elements present on public lands. An initial step in incorporating such an approach in DCNR is through placing recreation

professionals at all levels of the organization and requiring them to cooperate in solving complex problems and improving the level of recreational service. The team structure Fermata recommends is organized on two levels: a region-wide planning and administration team, and an operations and maintenance team at a multi-unit level. It is helpful to think of recreation staffing in two broad categories - planning/design and operations/maintenance.

Wilds Recreation Team

The DCNR Wilds Recreation Team (Team) should be comprised of planning/design staff with experience within all levels of the agency - central office, region, and units. These recreation planners and strategists should insure that facilities are designed with the user and resource needs in mind, that service is customer focused, that policies protect resources without being overly restrictive, that information meets user needs as well as communicating agency messages, and that recreation is considered when other land uses are discussed. An important role for the Team, touched on in the *Pennsylvania Recreation Plan 2004-2008*, involves educating recreation resource managers to be aware that they are in the business of service as well as stewardship. The end goal is to permeate the agency with a commitment to service quality (a commitment that is palpably obvious in the agency's conservation ethic). Among the responsibilities of the Team should be to develop service quality guidelines, to insure the consistent application of the guidelines, to evaluate the appropriateness of new recreations on public land, to draft and recommend recreation and public use rules, and to help prioritize capital investments.

Recreation Unit Teams

Interpretive, operations, and maintenance staff is recommended to be part of a support network within a specific Recreation Unit, defined for the purpose of this report as one landscape-scale resource (such as a watershed) with associated state parks and forests. Expected operational duties are those typical of any recreational facility, such as taking reservations, law enforcement, trail patrols, snowmobile trail grooming, life-guarding, cleaning, and mowing. This network will be especially helpful to DCNR in the period before all recreation staffing is in place, and to provide technical support to recreation staff that is inexperienced. For example, state parks currently have staffing in place that is experienced in managing recreation and these skills should be transferable to state forest settings as well. The recreation staff within each Recreation Unit should supply technical and labor support for field issues, such as providing consistent approaches to law enforcement problems, identifying common maintenance problems and brainstorming solutions, sharing specialized equipment, advising agency staff on managing problem areas, assisting with storm damage cleanup, concentrating efforts to maintain trails, coordinating office hours to cover high use periods, and cross-training reception personnel to answer common questions within the Recreation Unit.

Most of the Recreation Units were developed on a watershed basis. Fermata proposes the following Recreation Units:

- ❖ National Forest
- ❖ Pine Creek
- ❖ West Branch
- ❖ Sinnemahoning

- ❖ Kettle/Young Woman Creeks
- ❖ Black Moshannon/Bald Eagle (south of I-80)

Personnel should not feel constrained to only network within their Recreation Unit. Fermata recognizes that most operational needs will often be resolved with resources in close proximity. It is also understood that some resources and expertise are rare within the system and will need to be available to answer to needs across the state.

Staff Recommendations

Priority: High

Recreation Planners should be present at all levels of the organization: central office, regions, and units. The recreation planning and design staff should focus on the following responsibilities:

- ❖ Establishing quality guidelines for recreation facilities (trails, campgrounds, picnic areas, launches, etc).
- ❖ Insuring consistent application of quality guidelines.
- ❖ Providing quality information.
- ❖ Designing new facilities (such as trails) or be a member of team to design more complex facilities (such as developed campgrounds or visitor centers).
- ❖ Developing capital investment and rehabilitation plans for recreation assets and prioritize needs.
- ❖ Monitoring the condition of recreation facilities and recreation impacts on natural resources.
- ❖ Insuring that recreation interests are considered in other resource management decisions.
- ❖ Forging active partnerships with other agencies, volunteer groups and user groups to improve the delivery of recreation services in the region.

Fermata understands that the process to create new position classifications can be time consuming and that there is an immediate need to fill recreational positions. However, Fermata believes it critical that position classifications for recreation planners require recreation and parks experience and education. Specifically, recreation professionals with backgrounds in interpretation as well as the biological and social sciences are needed in outdoor recreation management rather than the reverse. In 2002, the Bureau of Forestry began to develop a draft Recreation Forester position description. The job description and educational requirements leaned heavily toward forestry. While a forestry degree program may include some introductory classes on recreation management, the educational and practical skills related to recreation development and management would not be assured through such an approach. Persons with a suitable recreation background may not meet eligibility requirements of the Forester classification. The Recreation and Parks Supervisor/Advisor classifications that are primarily used within the Bureau of Recreation and Conservation are much closer to the skills mix needed in the Bureau of Forestry. Therefore Fermata suggests exploring the possibility that this classification can be adapted without entering into the time consuming process to create new classifications. The Forest Program Specialist

classification also holds some promise, but it is unclear if applicants without forestry degrees would be eligible. Appendix 9 includes position descriptions from the Allegheny National Forest that are comparable to needs within the Bureau of Forestry.

DCNR Recreation Leader

Fermata recommends the creation of a new position within DCNR with overarching responsibility for outdoor recreation. This position should cover all aspects of outdoor recreation within the Department. Specific to this report, the recreation leader should help direct the Wilds Recreation Team. Fermata notes that an important responsibility for the recreation leader will be in establishing relationships with other recreation interests (both in and out of the Commonwealth) to bring new ideas and approaches to Pennsylvania and to keep the Department informed about emerging recreational trends and issues. Given the importance of outdoor recreation on DCNR public lands, Fermata recommends that the agency consider establishing this position independent of the existing bureaus (at the Deputy level). In this way outdoor recreation within the agency will be provided with an independent perspective and voice.

Bureau Recreation Planners

Fermata recommends that dedicated recreational professionals be committed to providing their respective bureaus with a balanced and focused approach to outdoor recreation on their respective public lands. These bureau-level recreation leaders should supply a bureau-level perspective to recreation issues, policy, and management. These bureau recreation planners should develop quality guidelines and insure consistency of application within their respective bureaus. Such planners should work to identify emerging recreations that have application on the public lands within their bureaus, and to help in the development of public use policies. For the purposes of this report, the bureau recreational planners should advise the Wilds Recreation Team.

Unit Recreation Planners

Fermata recommends the commitment of dedicated recreational staff to each recreational unit. Unit planners should be versed in customer service, trail design, accessibility, interpretation, and other recreation topics. Unit recreation planners should provide training and information to front desk personnel. Unit recreation planners should assist in the designing of unit recreation facilities with assistance from other members of the Wilds Recreation Team and the Bureau of Facility, Design, and Construction. Unit recreation planners should insure that recreation information is accurate, consistent, and of high quality (pamphlets, interpretive signs, website, etc.). Unit recreation planners should monitor the condition and quality of recreation facilities, evaluate recreation impacts on natural resources within the unit, and develop projects for maintenance, rehabilitation, or expansion. The unit recreation planners should implement specific recreational programs as developed by the Wilds Recreation Team.

Outreach Staff

Fermata recommends providing year-round outreach (reception) staff at the recreation unit level. DCNR should establish a public outreach facility (station) within each recreation unit, and reception staff should be positioned at each of these outreach stations. The outreach staff should be familiar with all the outdoor recreation opportunities within the respective units and, by extension, the

Pennsylvania Wilds. Reception staff may be the only contact many visitors have with DCNR and it is critical that these staff persons be well trained in customer service, basic interpretation, and advanced communication skills. The ability to listen carefully to visitor's questions, concerns, and suggestions will insure that the public's needs will be met and understood. The unit outreach staff should implement the outreach and communications programs developed by the Wilds Recreation Team.

Trail Maintenance Crew

Trails, like roads, provide a critical avenue or pathway to experience many different recreational activities. Within an immense natural area such as the Pennsylvania Wilds, trails offer both primary recreational experiences (long-distance hiking, for example) as well as secondary benefits (connecting users to other primary recreational experiences). In Fermata's experience not all trails within the Wilds receive a similar level of planning, development, and maintenance. For example, some recreational units depend almost exclusively on volunteers to maintain trails. Fermata recommends an emphasis be placed on elevating the trails program within the Wilds in recognition that trails are one of the chief ways for visitors to experience the Wilds. As recreation planners evaluate trails and plan for their rehabilitation or expansion, it will be essential to have an experienced trail crew to carry out their plans as well as to maintain trails in accordance with established guidelines. At present, many of the long-distance trails within the Wilds are designed and maintained to be attractive to the most avid trail users. Many are not suited to a general or inexperienced population. Like any recreation facility, proper design and maintenance of trails is important to protect the user's safety, reduce environmental impact, manage liability, and to ensure a quality experience.

Fermata recommends that DCNR begin with three seasonal trail crews of four to five persons each. We recognize that there is a large backlog of trail maintenance needs (additional evidence of restricted budgets), but we feel it appropriate to start small and build the program as the agency become more aware of specific trail needs. Crews should work (be shared) across recreational units, focusing on priority trails as identified by the Wilds Recreation Team and this report. Each crew should be comprised of persons with skills and training to operate a variety of equipment, such as chainsaws, ATVs, heavy equipment, and a variety of hand tools. The crews should receive training on trail maintenance techniques and established quality guidelines. Trail crews can be supplemented with volunteer maintenance. The involvement of trail support groups (clubs) in trail maintenance is an important outreach effort on the part of the agency. However, Fermata recommends that agency trail crews train, direct, and monitor volunteer efforts to ensure quality and consistency. DCNR may also consider supplementing trail maintenance efforts with Pennsylvania Conservation Corps crews with the professional trail crews training, directing, and monitoring their work.

Interpretation

Interpretation is the communication process that links meanings of resources to the experience and background of visitors in order to provoke a deeper understanding and appreciation of those resources. Interpretation services are either personal (naturalist programs) or non-personal (exhibits or panels). Providing both will serve a wider diversity of visitors, as some people will seek out facilitated experiences and others will prefer independence. Regardless of their preference, there are many conservation messages that need to be communicated to visitors to increase their awareness, influence their behaviors, and enhance their experience. Simply stated, all recreational programming with the Wilds should include an interpretive component.

Considering the conservation history of the Pennsylvania Wilds, Fermata recommends that particular attention be focused on developing a series of interpretive messages through both personal and non-personal interpretation that communicate the critical role that DCNR and its predecessors played in its restoration and renewal. Current visitors to the public lands in the region may well believe that the lands there are “wilderness” rather than the result of a century of conservation effort. Fermata has written extensively about Pennsylvania being the “cradle of conservation” in American history, and the Pennsylvania Wilds represents the finest example of that concept. Yet without a concerted effort to communicate these facts to the visiting public DCNR risks being overlooked and underappreciated.

DCNR Conservation Panels

Priority: High

To this end, Fermata recommends the development of interpretive signs for all state parks and forests that describe the Pennsylvania Wilds, the “cradle of conservation” story, and the DCNR role and responsibility in the conservation of these lands. Fermata recommends placing these signs in an outdoor setting in a location that will intersect with most visitors to a site. This could be an area near the park office, at a trailhead, or where there are information bulletin boards that orient visitors to the site. We recognize that the Bureau of State Parks has begun with this effort. We applaud the initiative, but we urge caution in the development of the important conservation messages to be incorporated in the panels before the firm establishment of the Wilds Recreation Team.

Implement the Lumber Heritage Region Interpretive Plan

Priority: High

The Lumber Heritage Region Interpretive Plan (LHRIP) is one interpretive component of this Recreation Strategy. The LHRIP identified a number of DCNR sites as priority sites for interpretation. Fermata recommends starting with the LHRIP recommendations for Cook Forest State Park and the Pine Creek Valley, and using these projects as model sites. More detail on the model sites for Cook Forest State Park and Pine Creek Rail-trail is located later in this chapter under Model Site Recommendations.

The following DCNR sites were also identified as priority sites for interpretation within the LHRIP:

Anders Run, Cornplanter SF: old growth

Babb Creek, Tioga SF: acid mine drainage remediation

Black Moshannon SP: CCC history, wetlands

Cherry Springs SP: CCC history, dark skies

Clear Creek SP: Clarion River

Colton Point SP: Pine Creek Valley (conservation, new deal, lumber, transportation)

Cook Forest SP: old growth, Clarion River

Elk Scenic Drive: forest rebirth

Elk SP: Lost towns (Towns of Instanter and Straight), flood control

Hyner Run SP: CCC history

Kinzua Bridge SP: viaduct history

Leonard Harrison SP: CCC history, Pine Creek Valley (conservation, new deal, lumber, transportation)

Ole Bull SP: Norwegian colony site

Parker Dam SP: CCC history

Pine Creek Rail-Trail: conservation, new deal, lumber, transportation

SB Elliott SP: CCC history

Sinnemahoning SP: wildlife viewing

Wayside Memorial, Elk SF: CCC history

The LHRIP recommends integrating the interpretive framework into state park “prospectuses.” Fermata suggests that DCNR review the recommendations in the prospectuses and revise each prospectus to reflect the LHRIP recommendations. However, Fermata does not recommend eliminating prospectus ideas that fall outside the LHRIP. The LHRIP identified many important stories and sites to interpret and should be used to help (but not limit) recreational and interpretive priorities.

Recreational Programming

The world of outdoor recreation within the Pennsylvania Wilds is, for the most part, a self-serve offering. Hunting, kayaking, hiking, and wildlife viewing, a few of the recreations that occur presently within the region, are generally practiced on an individual, unassisted basis. In order to expand and diversify outdoor recreation in the Pennsylvania Wilds, particularly among the growing urban, uninitiated population, DCNR will need to develop a broad-based strategy for recreational and interpretive programming. The benefits of such programming will extend beyond simply expanding recreational opportunities to the public’s enhanced appreciation of DCNR lands. Such programming should be offered in two specific ways – by the agency itself, and in cooperation with the private sector, non-profit organizations, and public recreation professionals. We note that such agency programming is consistent with agency goals and efforts throughout the state.

DCNR Recreational Programming

Priority: High

The Wilds Recreation Team, working in concert with recreation and interpretation professionals from across the recreation spectrum, should be given primary responsibility for developing DCNR recreational programming within the Pennsylvania Wilds. Fermata initially addressed the need for programming in its Cherry Springs State Park early implementation plan. We believe that the opportunity exists to capitalize on this early success and to develop a broad-based strategy for recreational and interpretive programming within state parks and forests. From guided hikes to orienteering workshops, from wildlife photography clinics to wildflower field trips, DCNR should facilitate and nurture the experiences of recreationists who may well be in the outdoors for the first time in their lives. “Learn to” programs that offer first-time recreationists the skills they need as they attempt new activities such as fly fishing, kayaking, canoeing, etc., will be critical to developing an expanded recreational population. More importantly, DCNR staff should design recreational and interpretive programming that incorporates the DCNR conservation message in all of its

programming in the region. Recreational programming developed by the Wilds Recreation Team should be implemented at the unit level by the unit recreation planners.

Private-Sector Recreational Programming

Priority: High

DCNR recreation staff is (and will be) limited, and there exists the opportunity to work with the private sector in developing recreational programming as well. The nature tourism incubator initiative at Sinnemahoning State Park is being organized specifically with this need (and opportunity) in mind. Fermata urges DCNR to complete the development of the Sinnemahoning facility and to aggressively recruit the private sector to develop a more diverse set of recreational products for the region. In addition, Fermata recommends that DCNR consider additional opportunities that may exist for the private sector to offer recreational programming on public lands.

Non-Profit Organization and Public Recreation Sector Programming

Priority: High

From Trout Unlimited to local municipal park departments, there are a variety of non-profits and public agencies that are willing to partner with DCNR to provide recreational programming. Fermata recommends that the Wilds Recreation Team openly solicit the participation of these organizations and agencies in developing recreational programming in partnership with DCNR on public lands. An early opportunity for such cooperation will be in the development of the elk interpretive center near Benezette by DCNR and the Rocky Mountain Elk Foundation (RMEF). Fermata recommends that the Wilds Recreation Team work closely with the RMEF in developing a diverse recreational and interpretive strategy for that important facility.

Recreation Information

DCNR Printed Recreation Information

Priority: High

As has been stated previously, the Pennsylvania Wilds has traditionally been known by a small cadre of avid recreationists. For the most part these recreationists have operated independently and have required little in the way of recreational information from the agency. However, to expand the recreational population traveling to the Pennsylvania Wilds, particularly among uninitiated urbanites, will require a more sophisticated and broad-based communications strategy. Surveys in the last two Pennsylvania State Comprehensive Outdoor Recreation Plans indicated that lack of information is a barrier to recreation, with other significant limitations being a lack of time, a lack of money, and crowded facilities (*Pennsylvania's Recreation Plan 2004-2008*). Clear and detailed information is needed to facilitate and nurture the visits of those for whom the Pennsylvania Wilds has been little more than a void on the map. More importantly, the absence of information can be construed as a negative, leading to a sense insecurity and unexpected danger. Fermata is therefore placing a high priority on the development of a diverse set of informational tools and products.

Fermata recommends the following improvements to printed materials:

❖ **State Forest Public Use Maps**

- Fermata recommends larger scale maps to reduce clutter and provide more detail.
- Display all roads and designated trails on maps. Recreationists are challenged to navigate through state forests if important roads and trails are absent from maps.
- Use road and trail names on maps, and insure that they agree with on-the-ground signage.
- Provide detailed information on what to expect within state forests. Many visitors arrive with expectations that cannot be met. Fermata believes that it is the visitor's responsibility to assume the normal risks associated with recreational use of the forest, to inform themselves about the potential hazards, and to take appropriate actions to prevent injury or damage. Let visitors know where cell service is available, the location of emergency services, the typical condition of roads in each season, and the remote and secluded nature of the Pennsylvania Wilds.
- Provide interpretive information on local history, land management, and conservation practices.
- The DCNR website indicates there are four designations of trails: National Scenic, State Forest Hiking Trails, local district trails, and interpretive trails. However, state forest maps only display two of these classifications - "Special Trails" and "Trails." State Forest Trails are shown on the maps as "Special Trails." Fermata suggests that the language should be consistent in referencing specific classifications of trails. All designated trails should be shown on state forest maps. Map symbols should be used to distinguish between different designations.
- Remove trails from state forest public use maps that are no longer visible (or viable) on the ground.

❖ **State Parks**

- Again Fermata recommends a larger map format because it provides more detailed information on specific trails and resources.
- For parks with extensive trail networks, a stand-alone, larger scale trail map is warranted. The map should be based on GPS data and should include topographic lines, allowable trail uses, trail difficulty level, trail mileage, and trail features/attractions. The Cook Forest State Park pamphlet is an example of a map that has become too cluttered with trail information. Fermata recommends stand-alone maps for the following parks: Black Moshannon, Chapman, Clear Creek, Cook Forest, Kettle Creek, Little Pine, Lyman Run and Parker Dam.
- Insure that maps provide interpretive information on local history, land management, and conservation practices.

DCNR Website

Priority: High

Fermata recommends that the DCNR website be enhanced to provide detailed information on specific recreation facilities and experiences available on public lands within the Pennsylvania Wilds. The objective is to provide detailed information that would not only entice people to visit but to facilitate and nurture their travel as well. An effective website should incorporate redundancy that

guarantees that viewers will find what they are looking for regardless of the way they search. *Pennsylvania's Recreation Plan 2004-2008* recommended providing comprehensive internet information on outdoor recreation and heritage opportunities (Chapter 7, page 29). The plan also recommended creating an interactive Discovery Map, an Internet-based application that could more efficiently and effectively present a complete inventory of outdoor recreational opportunities in the Commonwealth. Fermata sees value in applying this same approach to the Pennsylvania Wilds. Fermata has reviewed existing website content and organization, and has these recommendations:

- ❖ **General Organization:** Fermata recommends structuring the website by park and forest units as well as by recreational activities. Information about state park recreational opportunities presently can be obtained by either identifying the park or the activity (for example, the “find some fun” feature). The state forest website should mirror this structure. However, Fermata recommends that the activity component encompass all DCNR activities and not be separated by bureau. A visitor looking for information on the Kettle Creek Equestrian Trail should be able to find it by going through the Kettle Creek State Park page, the Sproul State Forest page, or the Horseback Riding web page.
- ❖ **Trails:** Fermata recommends expanding the state forest pages that detail hiking trails (<http://www.dcnr.state.pa.us/forestry/hiking/index.aspx>). Each trail system should have its own page (backpack trails, ATV trails, equestrian trails, snowmobile trails, cross-country ski trails, and State Forest hiking trails). For state parks, Fermata recommends creating a page that provides details about each trail in the park. For each trail Fermata recommends providing the following information: trail length, trail difficulty, trail type (loop or point-to-point), trailhead locations and amenities (telephone, parking lot size, winter plowing, restroom, etc.), descriptions of how each trail is marked, descriptions of the trail landscape and unique natural features (wild and natural areas, waterfalls, rock outcrops, unique wildlife, catastrophic events like fire or tornado), presence and locations of trail shelters, the names the DCNR units the trail passes through, the names of volunteer organizations who maintain the trail, and a high quality pdf map of the trail itself. Use either miles or kilometers – do not mix and match. Provide a trail condition page that provides detail on the condition of each trail and the last date the trail was inspected. Be prepared to close trails that have unsafe conditions and be sure to post such closures on the website.

The Uinta National Forest in Utah has an innovative Travel Access Map that is a GIS-based application (http://svinetc2.fs.fed.us/ta_jsp/r4/uinta/Map.jsp). South Carolina also provides a variety of ways to search for trail opportunities. An interesting feature is the clickable state map that takes the viewer to a county map with clickable recreation symbols. Eventually you reach a narrative description of each trail with an attached map that can be printed (<http://www.sctrails.net/trails/>). Fermata recommends that the Wilds Recreation Team work with DCNR IT staff to develop a robust web offering that incorporates similar features.

- ❖ **State Forests:** Within the state forest web pages, Fermata recommends providing similar information with similar detail for all forests. Consistency will be critical in meeting the expanded demands and expectations of travelers to the region. Fermata suggests the following general categories of information that should be provided for each state forest: history, recreational activities, accessibility, wild and natural areas, resource management, and a selection of state forest maps. The resource management section would be a new category that should provide details on the kinds of resource management practices a visitor might see during a visit, include activities related to timber, minerals, wildlife, and fisheries.

- ❖ **State Parks:** Within the state park pages, provide the same kinds of information at the same level of detail for all parks (consistency is the key). However, Fermata does recommend adding the Natural Resource, History, and Nearby Services sections to every park page.
 - Enhance pages that provide comparison tables with details on camping, cabins, and picnicking (http://www.dcnr.state.pa.us/stateparks/recreation/camplist_wilds.aspx). Reformat information into a matrix that allows users to sort data based on a column header. Provide additional columns that provide Y/N fields of typical park amenities, such as: swimming, game pits or fields, trails, restroom types, showers, electric hookups, etc. Include dates of season and specific fees.
- ❖ **Outfitters & Guides:** Providing links to private outfitters and guides is an important customer service piece. Some public agencies are restricted to only listing private businesses that have an agreement or permit. If this is the case, work with the local tourist promotion agency or Pennsylvania Wilds Corp. to create a website that lists outfitters and guides, and provide a link to that website. Be detailed as to what service the business provides and what geographic area it covers. This will be particularly important as the Wilds Recreation Team begin to implement additional recreational programming in partnership with the private sector.
- ❖ **Specific Recreations:** The following examples detail ways in which specific recreational information should be offered on DCNR websites. The list is not inclusive; it is intended to demonstrate the level of detail that should be available to the recreational public. Fermata recommends that the Wilds Recreation Team work with DCNR IT staff to develop an informational template for each recreational activity to be developed in the Pennsylvania Wilds.
 - **Hunting & Fishing:** Fermata recommends that DCNR enhance the hunting and fishing sections of the website with lists of special designated areas (such as Wilderness Trout Streams), providing details on record fish or wildlife harvested, and by describing any specially managed areas for wildlife habitat (ex: food plots, fish structure). The key will be to provide the kind of detail that will entice people to travel to DCNR lands and to focus their activities once they have arrived.
 - **Photos:** Include more photos of general scenes, specific facilities, and historic photos. Be sure to identify the subject of each photo, and enable visitors to click on a photo to enlarge it. More importantly, Fermata recommends the liberal use of real or near-real time imagery.
 - **Rail-to-Trails:** Fermata recommends aligning the Rails-to-Trails regions to reflect the creation of the Pennsylvania Wilds. <http://www.dcnr.state.pa.us/railtrails/default.aspx>
 - **Floating:** Fermata recommends that DCNR provide detailed information on the most popular rivers and streams for floating (canoe, kayak, raft). For each stream, describe the landscape, public lands, access points, and scale of difficulty (American Whitewater). The American Whitewater website provides a summary of paddling waters by state with current status (<http://www.americanwhitewater.org/content/River/state/PA>). Provide links to the USGS river gages for each stream (<http://waterdata.usgs.gov/pa/nwis/rt>) and provide advice on reading and interpreting the data, such as the upper range for safe boating, and the lower range of when floating is still possible. See the Pine Creek Outfitters website for a good example (<http://www.pinecrk.com/weather/weather.html>). Provide this information for all commonly floated streams

regardless of the amount of DCNR land along its banks, as this information is not readily available for Pennsylvania streams and providing guidance for use along waterways will help insure that users have the information they need to act responsibly.

- **Winter Access:** Describe on State Park and State Forest pages what is accessible in winter. Identify the trailheads that are plowed. Explain which roads are open to common vehicles and which require chains. List the facilities that are closed and the dates of closure. Be clear about which restrooms are open, or if there are none. Indicate whether or not concessions are open in the off-season.

Visitor Information at Offices

Priority: High

Fermata recommends aligning hours of operation at recreational unit visitor offices with customer expectations, particularly during high-use seasons. For example, most recreational use is focused on the weekends, days when most state forest offices are closed. By establishing a single visitor service center for each recreational unit not all DNCR offices will be required to be accessible during these same periods. It is important to remember that not all visitors will research their opportunities prior to their visit. Many will rely on stopping by the office to obtain the necessary information. In truth, many visitors look forward to talking to the “ranger.” For many visitors to DCNR land, this may be the only interaction they have with an employee. Fermata believes it critical for reception employees, for many *the* public face of DCNR, have excellent customer service skills and be well informed of recreation opportunities in the region.

Fermata understands that it may be in certain cases challenging to maintain office hours that meet most visitors’ needs. Fermata recommends the collocation of such offices with local TPAs to mitigate the cost and to provide more staffing for the reception desk. The TPA staff will also know about private services in the area and can answer many of the visitor’s travel-related questions. Fermata recommends that DCNR provide a kiosk or service center outside the office with maps and pamphlets for visitors who are looking for information after hours. Such service centers should be lit at night and provide a pay telephone if cell service is not available in the area (as it often is not).

Signage

Priority: High

Signage, whether oriented to motorists on a road or hikers on a trail, is a critical and cost-effective component in enhancing the recreational experiences of visitors to the Pennsylvania Wilds. DCNR staff in the region will always be limited relative to the millions of public lands available. The signs that greet and inform visitors may well be the only DCNR “voice” that visitors hear. As stated before, DCNR must facilitate and nurture recreation in the region if it wishes to expand and diversify its audience. More importantly, the Pennsylvania Wilds conservation story and the role of DCNR in its restoration, if not explained through interpretive signage, will likely be left untold.

Many new travelers will simply stay away rather than face the challenge of navigating in such an undeveloped “wild” area. Many of the DCNR recreation facilities that Fermata staff visited during site assessments were minimally signed (if at all). One can only imagine that challenges faced by an uninitiated public if experienced Fermata staff found it difficult to find some DCNR sites.

One objective of signage is to direct visitors to their destination. The way finding signs developed and installed by PENNDOT for the Elk Scenic Drive provides an excellent model for directional signage. Fermata recommends developing sign plans for each Pennsylvania Wilds recreation unit. By planning at the unit level DCNR will insure that signage programs will transcend bureau or management unit boundaries. In addition, unit-level signage plans will insure consistency in graphics and design throughout the region. The signage components of the plan should include:

- ❖ **Tourist Oriented Directional Signing** helps visitors find services. Fermata recommends partnering with PENNDOT and local tourism promotion agencies to erect Tourist Oriented Directional Signing. These signs should provide consistent and predictable travel information, and should diminish the need for billboards and sign pollution at intersections.
- ❖ **Directional signs** help move travelers to DCNR sites from the state highways. Fermata recognizes that a directional signage strategy necessitates thinking about how visitors may access the site. Important questions to consider include where DCNR might properly intercept travelers with signage and where signage is important to keep travelers on the proper path.
- ❖ **Site Approach Signs** should give drivers notice that a recreation site is ahead. Such signs also serve an important traffic control function. Such signs prepare drivers for the slowing, breaking and turning maneuvers necessary for safe entry to the site. They can also reduce traffic impacts because some drivers may overshoot their destination and need to double-back (doubling the amount of traffic along a given stretch of highway).
- ❖ **Site Identification Signs** should mark the entrance of specific recreation facilities and sites. Such signs should clearly name the site and indicate specific recreational uses through the use of universal recreation symbols.
- ❖ **On-site Signing**
 - The signs include interior guide signs to direct visitors to various activities or facilities within a specific recreation site. Recreation symbols are preferable to word messages whenever their meaning is clearly understood.
 - Visitor Information Boards should provide essential detailed information to minimize the need for information signs elsewhere. These information boards should focus necessary information to a single location where visitors can be oriented to using the specific forest or park. Recreation activity information to be displayed include registration requirements (if appropriate), environmental messages (Leave No Trace), user etiquette, program or event schedules, regulations, and safety and emergency information.
 - Fermata recommends the avoidance of “fine print” regulation signs. Regulations should be posted at Visitor Information Boards but should be avoided throughout the site. DCNR should develop regulatory signs that address common regulatory problems with a positive tone. Words such as “don’t” not only challenge vandals, but also identify potential targets. When space permits, explain the reasons for protecting the area. Use graphics to support the friendly tone. Use signs specific to an issue at problem sites. Examples include - “Please take nothing but pictures, leave nothing but footprints,” “Please prevent erosion by staying on the trail,” and “Please keep dogs on a leash.” Signs with short clear message have a greater chance of being read and complied with than the fine-print posters.

- ❖ **Trail Signing** should be the primary method by which trails are officially designated. The Wilds Recreation Team should discuss what constitutes designation and how trail signage should be used to demarcate that designation. Fermata recognizes that the Pennsylvania Wilds offers a wide variety of trails and roadways, many of which have never been designated as such by the agency. It is important to note that once a trail has been designated, DNCR quality guidelines should apply to ensure a rewarding and safe experience. In practical terms, once a map has been produced, the level of expectation and attention increases greatly.
 - Signs identifying the name of the trail should be posted along intersecting roads and trails to aid in wayfinding. Use the name of the trail and not the historic name of the route (primarily an issue on state forests).
 - Mark trail segments with signs which show acceptable and unacceptable uses at entry points. Such signs can also display trail difficulty level. Carsonite has an adaptable decal system. These signs are typically posted at all trail and road intersections.
 - Install reassurance markers along all trails. Marking intensity will vary by difficulty level, but all trails should be marked.
 - Provide “you are here” map signs at intersections on trails that have a spaghetti-like network of trails. Another effective method is identifying trail intersections with unique letters or numbers that correspond to a map. The Denton Hill Cross-country Ski Trail is signed in this manner.

Collateral Materials

Priority: High

Collateral materials provide essential information for trip planning, will enhance the visitor’s experience during their visit, and can memorialize their visit once they return home. Fermata recommends that DCNR develop an online store where visitors can purchase maps and guides specific to the DCNR units. Fermata suggests the following:

- ❖ **Develop detailed trail maps and guides with a consistent style across DCNR recreation units.** Consider a set of detailed topo maps that span the Pennsylvania Wilds and include all hiking trails. Maps should be available on waterproof, durable paper. Fermata also recommends that DCNR closely monitor emerging technologies and offer maps in a variety of media (DVD, iPod, GPS).
- ❖ **Develop wildlife checklists** for each state park and forest (based on actual sightings, breeding bird surveys, etc). Include information about relative prevalence in each season (rare, occasional, common, and abundant). These checklists should form the basis for a wildlife watching guide for the Wilds. The guide should include viewing techniques, explain common species by habitat type, describe rare and unique habitats, and explain how viewing opportunities vary by season.
- ❖ **Develop expanded recreation guides.** DCNR should consider a series of recreation guides, modeled after the Elk Scenic Drive guide, that cover byways, old growth tours, U.S. Route 6, state parks, natural areas, and wild areas. These *explorer’s guides* should provide details on flora and fauna, historic sites, unique natural features, and interesting local lore.

- ❖ **Interpretive Signage:** There is no single Fermata recommendation that would have more immediate impact on the public than the development of comprehensive interpretive plans at the recreation unit level. A key component in any such strategy will be the development and installation of interpretive signs that deliver a consistent and concise set of DCNR messages. At present there are few interpretive signs on DCNR lands, and in the absence of interpretive staff visitors are left to their own devices.
- ❖ **Video/DVD:** As stated above, Fermata believes it critical that DCNR be aware of emerging technologies. More importantly, we recommend that the agency become “early adopters” in putting these new technologies to work. For example, we recommend enlisting the help of Pennsylvania public television in developing programs specific to the Wilds. Such programming can be made available through a variety of media (for example, as DVDs available in a local gift shop).

VisitPA Website

Priority: High

The VisitPA Website serves as a portal for many visitors looking for recreation opportunities in the Pennsylvania Wilds. It is critical that DCNR work with the PA Tourism Office to insure that the information being provided there is timely and accurate. For example, a review of the camping options listed on the website led us to the Bloody Skillet ATV Trail and to the Bucktail Scenic Byway among many other non-camping facilities. Fermata recommends that DCNR staff, particularly the Wilds Recreation Team, review this information to insure its accuracy.

Information Packets

Priority: Medium

Fermata recommends that the Wilds Recreation Team develop DCNR Pennsylvania Wilds information packets for TPAs and local establishments. These partners will need assistance in adapting to new recreation populations that will be attracted to the Pennsylvania Wilds. The development and provision of these packets insures that the DCNR conservation message will be consistently and accurately communicated at the local level.

Planning

Quality Guidelines

Priority: High

Quality guidelines, also referred to as standards or best management practices, provide the foundation for effective recreation planning. Recreation guidelines may be viewed as an “official” indication of how the agency expects recreational opportunities to be provided on public lands. Guidelines assure that facilities and experiences are of the highest quality consistently across the recreational units. Fermata recognizes that not all DCNR staff will have recreation planning or management experience, but all staff will be able to benefit from guidelines that were developed by a team of dedicated DCNR recreation specialists.

To this end Fermata recommends that Wilds Recreation Team review existing DCNR recreation guidelines and to revise these to reflect the changing recreational environment within the Pennsylvania Wilds.

The following should be incorporated into DCNR's guidelines:

- ❖ Difficulty levels
- ❖ Distribution of facilities by difficulty or development level
- ❖ Maintenance frequency
- ❖ Physical parameters (steepness, size, capacity)
- ❖ Compatible uses (shared use or single use)
- ❖ Seasonal closures to protect resources or reduce conflict
- ❖ Degree of hazard mitigation
- ❖ Appropriate resource management
- ❖ Appropriate level of development
- ❖ Signing
- ❖ Accessibility

Of particular concern to Fermata are the DCNR guidelines for trails. Fermata staff hiked approximately ten percent of the non-motorized trails on DCNR land in the Pennsylvania Wilds. A significant percentage of these were in poor condition due to ineffective trail design. Guidelines need to serve both user safety and environmental sustainability. The challenge to users should not come from the trail condition itself, but from the remoteness and ruggedness of the landscape. For instance, even though the Chuck Keiper Trail traverses an isolated and rugged landscape, the trail should provide a stable hiking surface that enables the user to enjoy the scenery rather than have to watch every foot placement.

In state parks, where one would expect to find less demanding trails that appeal to more general recreationists, Fermata encountered trails at high difficulty levels or trails that did not meet established guidelines. Fermata has reviewed the state park trail guidelines and finds them to be appropriate for the expected visitor and responsible to the environment. However, guidelines are only effective if they are followed. For example, the Panther Run Trail at Little Pine State Park is a wonderfully scenic trail, but getting there required hikes on trail grades that ranged from 45-90%. Although the landscape is rugged, it would be possible to provide a trail with grades below 12% (the recommended maximum grade for state park hiking trails).

Fermata recommends revising the existing trail guidelines to better serve the uninitiated recreational public that the agency hopes to attract to the region. In our opinion, the guidelines do not represent the current best management practices for trails. Of particular concern is the grade of the trail tread. Trail grade is a key factor influencing tread stability. Trail grades must be moderate to promote a stable, maintainable tread and a more pleasant recreational experience. To avoid erosion, the slope should normally be less than 10%, even in steep terrain. State forest guidelines indicate that grades of 20% are acceptable for easy trails and grades 30% or more are acceptable for more difficult trails. At this steepness, soil erosion is common and will carve the trail grade to below normal ground

level. In severe cases, the trail can intercept runoff and begin flowing with water. Trail erosion can occur even more quickly on trails open to equestrians, bicycles, and ATVs, so moderate grades are especially important to limit erosion and reduce maintenance needs in such a diverse use setting. Beyond damaging the trail's tread, erosion can deposit sediment in streams and in low lying areas. Such erosion can also lead to tree damage or loss when roots are exposed (such as is seen in the Longfellow Trail at Cook Forest State Park).

In general, Fermata found most trails to be best suited to the hiking enthusiasts, which is about 10% of the hiking population (*Outdoor Recreation for 21st Century America*, Cordell, 2004). There was little indication that modern trail design techniques were employed in the design of these trails. Further, the condition of trails is often neglected which further reduces their suitability to most hikers.

In Appendix 10 Fermata has included trail standards from the North Country Trail (<http://www.nps.gov/noco/pphtml/documents.html>), New York State Parks (<http://www.nysparks.com/agency/scorp/>) and the Pennsylvania Trail Design Manual for Off Highway Vehicles (<http://www.dcnr.state.pa.us/brc/PaTrailDesignManual.pdf>). In Fermata's experience, the standards described within these reports represent the best management practices for trails in Pennsylvania. These standards display a good understanding of ecological sustainability and of designing trails to meet user's needs. Fermata recommends adopting these trail standards as the guideline for DCNR trails.

The University of Minnesota Cooperative Extension Service has also produced a Recreational Trail Design and Construction Guide that provides good guidance on managing trails (<http://www.extension.umn.edu/distribution/naturalresources/DD6371.html>).

Recreation Opportunity Spectrum

Priority: Medium

The ROS Classification System is a land management tool used to classify lands based on the different recreation settings they provide. It is based on the premise that people expect certain types of recreational experiences on public land, and that land managers should be able to direct people to appropriate places for those experiences. ROS allows the land manager to provide recreational opportunities across a spectrum, or continuum, of five land-use classes so that the user may find satisfying recreational experiences for a variety of recreation activities. The Recreation Section in the Bureau of Forestry has developed a manual that includes guidance on applying ROS on state forest land. The Pennsylvania Recreation Plan supports developing management tools, such as those used by the U.S. Forest Service, that define recreation environments within the resource in order to customize resource management and establish limits of recreation if necessary (Chapter 7, page 26). Fermata recommends this system be expanded to include all DCNR land.

The land-use classes identified in the Bureau of Forestry manual include: primitive, semi-primitive non-motorized, semi-primitive, semi-developed, and developed. Within each of these classes, setting indicators describe what is appropriate in each land-use class. For instance, a highly developed paved trail is not appropriate in a primitive setting. The setting indicators provide guidance in the following areas: access, naturalness, site management, and visitor impacts. Within each land-use class, the characteristics of the setting are described, such as minimum size, distance from roads, degree of isolation, appropriate recreation activities, appropriate resource management activities, and the degree of management controls.

Across the Pennsylvania Wilds, the state parks should serve as nodes of development and concentration of use. Opportunities at this end of the spectrum are more engineered, provide a managed atmosphere, are suited to families and beginners, and provide more social interaction. This includes facilities such as full service campgrounds, marinas, and swimming beaches. As you move away from the developed nodes, settings in state parks and forests offer semi-developed experiences such as rail-trails, fishing, and tent campgrounds. Semi-primitive settings range from motorized to non-motorized and are essentially related to the proximity to roads and motorized trails. Activities in this setting include ATV trails, hiking trails, equestrian trails, hunting, dispersed camping, and gathering forest products. At the other end of the spectrum are primitive settings, generally including the designated natural and wild areas. In this setting the experience is one of independence, remoteness, and challenge in natural landscapes where the hand of man is minimal.

The ROS system lays the groundwork for developing the quality guidelines recommended earlier. Frequency of maintenance will vary across the spectrum in keeping with the desired experience and expectation of challenge and risk. Trails in primitive areas are expected to be more difficult, and different construction and maintenance techniques are warranted to maintain a natural setting (see Appendix 10 for an example of trail standards defined by ROS class). The kind and frequency of signing will vary in developed settings versus primitive settings.

Accessibility

Maintenance

Priority: High

DCNR has made commendable efforts in offering accessible facilities and programs for persons with disabilities. Incorporating universal design into all improvements and new facilities is the best way to provide accessibility. What has been overlooked is the need to maintain accessibility. Maintenance personnel may not understand all accessibility requirements and should be trained to recognize common problems and to take corrective action.

The most common accessibility issue identified by Fermata staff was the settling of accessible pathways creating thresholds between the pathway and the facility in excess of one inch. Another issue identified during Fermata field visits was the installation of toilet paper dispensers mounted too closely above a grab bar. The placement of garbage cans within the accessible toilet stall can also hinder accessibility.

The installation of signs and information on bulletin boards should closely follow accessibility guidelines. An interpretive sign at the Hicks Run Wildlife Viewing Area, for example, was mounted higher than the 30 inches required for accessibility. A kiosk or information board should be mounted with the center of the display space at about 48 inches. Signs with smaller text should be placed at the bottom of the kiosk display area with larger text near the top. Signs for warnings and other important information should be developed that are high contrast, with a brief message that is simple and clear, and produced on a durable material.

Information

Priority: High

Recreational information provided the public can be improved with more detail. Fermata found that a few state park maps show accessible facilities with a blue symbol. We recommend that this approach be expanded to all state park and state forest maps. Within the text on the pamphlet, we recommend including a detailed description of each accessible facility. It is not enough to say that campsites, picnic areas, and restrooms are accessible. Be specific about locations and also note what is available in the shoulder seasons and winter.

Fermata recommends that DCNR follow the same format on the DCNR website. The accessibility page should include both state park and state forest facilities, organized by recreation unit. The accessibility page should provide a list of facilities by region, by park or forest, or by activity. DCNR should provide a link on this first page to a matrix on the accessible features for each park and state forest recreation facility (facility in the first column, recreation activities across the first row). Clicking on a cell should take the viewer to a webpage that provides detail and a description of the accessible facility. Incorporate accessibility details on the primary pages for each state park and forest.

Private Sector Strategy

It is neither desirable nor feasible for DCNR to provide all aspects of a visitor's recreation experience. Partnering with the private sector to enhance experiences on public land is cost effective and will share the anticipated economic impacts with area communities. Fermata recommends developing a comprehensive strategy and procedures for private business operations on public land.

Outfitters and Guides

Priority: High

Fermata first recommended the development of additional outfitter guide services in the Sinnemahoning Nature Tourism Business Incubator feasibility study. Fermata views outfitters and guides, if properly trained and monitored, as extending the efficacy of the agency in providing recreational programming to a diverse audience. Outfitters and guides assure that the general public has reasonable access to DCNR recreational opportunities, that the use resulting from it is of the highest quality, that the resources are protected, and that the public gains an appreciation for the unique attributes of the environment and the role that DCNR plays in protecting these attributes.

Regardless of the equipment used (bicycles, snowmobiles, ATVs, or skis) ease of access to recreational opportunities is critical. Consumers are more apt to patronize a business that offers service and convenience, even at a higher price. Visitors may also make the decision to experience a new adventure or participate in an activity simply because the opportunity exists. Guided recreational activities will help visitors navigate the thousands of acres of public lands safely and confidently. A guide for any activity will provide knowledge about the rules, regulations, and the licenses or permits required for specific activities. Fermata believes that expanded recreational programming and guide services will attract more people from outside Pennsylvania who are otherwise hesitant to "go it alone."

Fermata recommends that DCNR work with the Pennsylvania Wilds Corporation and the North Central Pennsylvania Regional Planning and Development Commission to identify gaps in outfitter guide and recreation services where credible opportunities exist for successful business ventures. Fermata recommends establishing an outfitter/guide association to set standards of behavior and help to ensure the quality and integrity of guiding in the region. Fermata also recommends a central booking facility that can serve as the vehicle for connecting outfitters and guides to the visitors they serve.

Concession Operations

Priority: High

Concessionaires operate government-owned facilities. Concession services are an important customer service tool that provides services that are either too expensive for the agency to provide or that the agency does not have the expertise to provide. Current concession operations on DCNR land are primarily for food, store, and marina services. Other land management agencies have used concessionaires to operate campgrounds as a way to keep facilities open during tough fiscal periods. Because concessionaire operations serve so many people in vital areas of the agency's mission, a detailed operation plan is advised to insure that concessionaires will adhere to quality guidelines. Concessions can also provide equipment rentals and Fermata recommends pursuing this avenue if private outfitters do not exist in an area and visitor feedback indicates a particular service is needed (such as canoe livery or rental).

Permits and Procedures

Priority: High

Private business operations on public land operate under permit to insure service quality, to disperse use, and to protect sensitive resources. Procedures for issuing permits should specify when a permit is needed, the application process, the timelines for submitting an application and getting approval, the evaluation criteria, the insurance, bonds and related permits required, the permit term, limits on party sizes and annual use, fees, and guidance on the kinds of appropriate activities. The procedures should also outline the process for non-commercial permits such as non-profit group outings or events, which can have similar impacts to the natural resources. The U.S. Forest Service has a wealth of information on their website that can help DCNR craft a strategy and procedure manual. <http://www.fs.fed.us/recreation/permits/>

Revenue

Recreation Fee Program

Priority: Medium

Pennsylvania's Recreation Plan 2004-2008 recommended that options be explored for generating revenue on state lands used for recreation (Chapter 7, page 7). A funding strategy should detail the potential sources of revenue, the regulatory foundation for keeping revenue within the unit, and the objectives that are served by charging new fees. Central to a funding strategy is the authority to keep all or a portion of fees generated within the unit and to protect appropriated funding from diminishing as a result. Without this protection, there will be little incentive to carry out a fee program that can be controversial and time consuming.

Revenue

Priority: Medium

The following are examples of potential revenue sources that should be considered by the Wilds Recreation Team. Fermata recognizes that recreation fees can be a controversial topic. However, we also are aware that there are a variety of revenue sources other than entrance fees that are worthy of exploration. The strength of any revenue program is based on its diversity and adaptability. Examples might include the following:

- ❖ Sales areas in park and recreation unit offices.
- ❖ Collectible pins or patches that show DCNR support and gives discounts on sales and fees.
- ❖ An expanded relationship with Pennsylvania Parks and Forests Foundation to raise funds for field projects.
- ❖ Heritage expeditions, involving DCNR staff leading multi-day trips, some involving backcountry travel, to find Native American trails, restore historic structures, or learn backcountry skills.
- ❖ A fee structure for commercial permits. As recreational programming is developed in concert with the private sector, it will be important for DCNR to sustain its efforts by sharing in the proceeds.
- ❖ Rent out meeting rooms at offices for meetings. Consider renting visitor/interpretive centers for after-hours receptions and parties.

MODEL SITE RECOMMENDATIONS

Webster defines *model* as an excellent example that deserves to be imitated. Within each recreation, the site assessment scores and field notes were analyzed to rank each site relative to each other. The Model Sites are recommended as a priority for implementation and should serve as examples to guide the design and implementation of the Signature Sites, which are listed in the table below in order of quality and priority.

A critical quality in a model site is found in its connection to surrounding communities. For example, the Pine Creek Rail-Trail is now (based on the recommendations in the Pine Creek Early Implementation Plan) being extended into Wellsboro and Jersey Shore. The Cherry Springs Dark Skies program may now influence lighting regulations in Galeton. Ridgway is now involved in a riverfront strategic planning effort to enhance its connection to the Clarion River. Therefore we urge DCNR to continue to look beyond its own boundaries and to consider how to connect these model sites (those recommended here, and those developed in the future) to local citizens, local business, townships, counties, and communities. We recommend that a strategic trail development plan (both land and water trails) be developed to more strategically connect the considerable DCNR resources in the region with the communities of the Pennsylvania Wilds.

In addition to being integrated with surrounding communities, it is critical to these recreational activities within model sites be integrated as well. While we are emphasizing certain recreations at certain sites (serving as models) it is understood that a strength of model sites is to be found in how well these specific recreations are integrated with others at the site. For example, while rail-trail

hiking is emphasized along Pine Creek, cross-country skiing along the same trail will benefit from the enhancements being recommended.

We also note that DCNR offers certain recreational activities, such as hunting, virtually throughout its extensive lands in the Pennsylvania Wilds. In addition, hunting is generally regulated by the Pennsylvania Game Commission, even when the activity takes place on DCNR land. Therefore we have made no model site recommendation for hunting. However, as we have stated throughout this report, we do believe that there are opportunities to expand on this traditional base. Black bear, white-tailed deer, Ruffed Grouse, and Wild Turkey abound within the region, and wapiti (elk) have reached a population level where a limited hunting season is now offered. Working with its sister agencies, as well as not-for-profits such as the Rocky Mountain Elk Foundation, National Wild Turkey Federation, and the Ruffed Grouse Society (to name a few), DCNR is offered an opportunity to expand on this traditional base and to attract new hunters to the activity as well as the region.

Most of the model sites have recommendations, although a few are already excellent models and need no further enhancement. Recommendations fall into several categories, such as programming, information, interpretation, capital investments, maintenance, planning, and policy. At the end of this chapter, a summary table is provided to give readers a quick view of the level of investment needed for each model site. Refer to Chapter 3 for a description of the assessment process, and Appendix 4 for the resource assessment reports.

Summary of Site Recommendations

Category	Recreation	Model Site	Signature Sites			
Camping	Developed Camping	Black Moshannon SP	Ole Bull SP	Clear Creek SP	Hills Creek SP	Little Pine SP
Heritage Tourism	Visit Historic Sites	Implement Lumber Heritage Region Interpretive Plan				
	Visit Prehistoric, Archaeologic Sites					
Sight-seeing	Visit Interpretive Centers	Sinnemahoning SP Portal	Cherry Springs SP Portal	Leonard Harrison SP Portal	Cook Forest SP Portal	
		SB Elliott SP Gateway				
		Rocky Mountain Elk Foundation Center at Benezette (tentative)				
	Driving for Pleasure	Elk Scenic Drive	Bucktail Scenic Byway	PA 44/144 Scenic Byway Proposal	Clarion River Byway Proposal	US Route 6
	Sightseeing	Implement Lumber Heritage Region Interpretive Plan				

Category	Recreation	Model Site	Signature Sites			
Trails and Roads	Day Hiking	Cook Forest SP	Mount Brodhead Trail: Susquehannock SF	Fred Woods Trail: Elk SF	Ole Bull SP	Black Moshannon SP
			Clarion River Trail: Allegheny NF			
	Backpacking	Quehanna Trail: Elk and Moshannon SFs, Parker Dam SP	North Country National Scenic Trail: Cook Forest SP, Kittanning SF	West Rim Trail: Tioga SF	Black Forest Trail: Tiadaghton SF	Chuck Keiper Trail: Sproul SF
			Susquehannock Trail: Susquehannock SF	Allegheny Front Trail: Moshannon SF		
	Visit a Wilderness or Primitive Area	Hammersley Wild Area: Susquehannock SF	Quehanna Wild Area: Moshannon & Elk SFs	Letterman & Burns Run Wild Areas: Sproul SF	Pine Tree Trail Natural Area: Elk SF	Tamarack Swamp Natural Area: Sproul SF
			Cranberry Swamp Natural Area: Sproul SF	Squaretimber Wild Area: Elk SF (Proposed)		
	Mountain Biking	Eagleton Mine Camp Trail: Sproul SF				
	Railtrail Biking	Pine Creek Rail-Trail				
Horseback Riding	Kettle Creek Equestrian Trail: Sproul SF and Kettle Creek SP	Thunder Mountain Equestrian Trail: Elk SF	Keystone Mountain Country Trail System: Tioga, Tiadaghton, Susquehannock & Sproul SFs			
Viewing Activities	View/Photograph Other Wildlife	Sinnemahoning SP	Hills Creek SP	Bald Eagle SP	Elk Scenic Drive	
	View/Photograph Natural Scenery	Hyner View SP	Beartown Rocks: Kittanning SF	Leonard Harrison SP	Colton Point SP	Fish Dam Overlook: Sproul SF
	View/Photograph Wildflowers, Trees	Forest Cathedral Natural Area: Cook Forest SP	Bald Eagle SP			
	View/Photograph Birds	Bald Eagle SP	Cook Forest SP	Sinnemahoning SP	Black Moshannon SP	Susquehanna River Birding & Wildlife Trail

Category	Recreation	Model Site	Signature Sites			
	View/Photograph the Sky	Cherry Springs SP	Fish Dam Overlook: Sproul SF			
Water Activities	Visit a waterside	Black Moshannon SP	Wykoff Run Road: Elk SF	Pine Creek and tributaries	Rattlesnake Rock: Tioga SF	
	Coldwater Fishing	Kettle Creek	Pine Creek and tributaries	Fishing Creek (Clinton County)	Clarion River	Allegheny River
	Flatwater Paddling	Clarion National Wild & Scenic River	Pine Creek State Scenic River	Allegheny Wild & Scenic River	West Branch Susquehanna River	
	Whitewater Paddling	Pine Creek State Scenic River				
	Swimming in Natural Waters	Parker Dam SP	Bald Eagle SP	Chapman SP	Hills Creek SP	
	Warmwater Fishing	Sayers Lake: Bald Eagle SP	Hills Creek SP			
Winter Activities	Cross-country Skiing	Denton Hill Cross-country Trail: Susquehannock SF	Black Forest Area Cross-Country Ski System: Tiadaghton SF	Quehanna Cross-Country Ski Trail System: Elk and Moshannon SFs		
	Winter Activities	Chapman SP				

Model Site Recommendations

Camping

Developed Camping

Attributes of a Model Facility

- ❖ Wooded setting with partly shaded campsites.
- ❖ Accessible restrooms that are well kept, low odor and lighted at night.
- ❖ Bulletin board with night security light that displays: park map, campground map, emergency information, program and event calendar, regulations.
- ❖ Level, hardened campsite spurs of varying length.
- ❖ Accessible picnic table and fire ring.
- ❖ Lantern holders at each campsite. Important to reduce damage to trees around campsites.
- ❖ Accessible pathways to restrooms, playgrounds, bulletin boards and other ancillary facilities in the campground.
- ❖ Pay telephone in a central or prominent location.
- ❖ Firewood available for fee or free. Important to reduce damage to trees around campsites.
- ❖ Variety of other recreation activities and programming in close proximity, ideally within easy walking distance on accessible pathways.
- ❖ Campground host.

Black Moshannon State Park

Priority: High

Black Moshannon State Park is recommended as a model for developed camping. It has well designed and maintained facilities with a rustic CCC character and fascinating wetland habitats. A variety of lodging options appeals to a broad base of recreationists. Modern accessible restrooms with flush toilets and showers serve campers and cabin occupants. The campsites provide lantern holders and hardened parking spurs to protect the site from tree damage and soil compaction. An attractive, well designed amphitheater is located along an accessible pathway linked to the campground. The park has a good selection of recreation activities to serve campers – concession (store and prepared food), boat rentals, swimming beach with modern bathhouse, 20 miles of trails, fishing pier, and naturalist programs.

Recommendations

Fermata has no recommendations for the campground but recognizes that campers will engage in a variety of activities while in the park.

- ❖ Most facilities are accessible to persons with disabilities, although some of the pathways have settled and are no longer accessible (transition to boardwalks, fishing pier and buildings greater than one inch).
- ❖ Interpretive exhibits that explore the variety of wetland habitats in the park would enhance the experience for all park visitors.

Restroom Facilities

Priority: High

The *State Parks 2000* report recommended replacing pit latrines with flush or composting facilities. Since the *State Parks 2000* report was completed, sanitary engineers have found composting toilets to be an unattractive option. A composting toilet can be twice as expensive as a vault toilet to install and demand 5-10 times more time to operate and maintain. Composting toilets depend on mechanical processes. Frequent and timely maintenance is necessary to keep composting toilets functioning properly. The regular mixing and eventual disposal of the composted waste can expose employees to pathogens. Disposing of the waste is not straightforward. A permit may be needed to spread the waste on the ground, or it can be set to a landfill or sewage treatment plant.

Composting toilets have been sold to the public as an environmentally friendly solid waste disposal option. Actual experience has proven this to be fictional. The bottom line is that waste is still likely to go to a treatment facility, although personal handling will be necessary to deliver it there. The end product from the sewage treatment process is water and neutral solids, which is a more environmentally safe product than what is typically hauled out of a composting toilet.

It is easy to understand what visitors find objectionable about pit latrines. They are typically small, dark, and smelly. The U.S. Forest Service has developed a modern vault toilet design that provides a cost effective solution for sites without municipal sewage service. The new sweet smelling toilet (SST) design virtually eliminates odor from the inside of the toilet building. Placement of the building takes advantage of the sun and wind to aid in odor control. Buildings are located with concern given to what lies down wind. The buildings are easier to clean resulting in a more sanitary and pleasing environment for users. Choosing low maintenance options saves time and money, and spreads your limited resources more effectively. The Allegheny National Forest has been using this design for 15 years with good success and visitor satisfaction.

Heritage Tourism

Visit Historic and Prehistoric Sites

The Lumber Heritage Region Interpretive Plan (LHRIP) identified nineteen itineraries and five stand-alone sites as phase one priorities. As a means of demonstrating the implementation process and final product, two sites have been chosen to serve as models. The Pine Creek Valley Itinerary and the Cook Forest State Park portion of the Old Growth Forests Rediscovered Itinerary are recommended as model sites for immediate implementation.

Pine Creek Valley

Priority: High

Pine Creek was chosen as an early action project for the Pennsylvania Wilds. The early action report recommended implementing the LHRIP for Pine Creek and adjacent state parks: Leonard Harrison and Colton Point. The Pine Creek Valley Itinerary was rated the highest during the LHRIP evaluation process. At present, interpretation is limited to panels at Leonard Harrison State Park and intermittent personal interpretation at various sites. As one of Pennsylvania's natural crown jewels, interpretation will enhance visitor experience and encourage positive environmental ethics. The LHRIP recommended the Conservation, New Deal, Lumber, and Transportation storylines for interpretation in the Pine Creek Valley. Refer to the LHRIP for a description of each of the storylines.

Recommendations

Both the LHRIP and the Pine Creek Early Action Plan recommended developing an interpretative site plan. The early action plan also recommends the development of collateral materials such as maps and trail guides. The interpretive signing along the bike trail at Oil Creek State Park serves as a good example to follow for the Pine Creek Rail-trail.

The LHRIP provides these recommendations:

- ❖ This site should interpret the conservation story in the LHR. It should illustrate the declaration of the valley and its guardian parks, Leonard Harrison and Colton Point. The story should focus on the fathers of conservation, their purchase of the land, wildfire control, and the rebirth from denuded landscapes to National Natural Landmark status.
- ❖ Most of the conservation storyline should be told on the Leonard Harrison side due to the greater visitation and the rare quality within the LHR of being able to see down over a broad forested landscape. With signage bearing early photos of deforestation and fires, the contrast with today's forests will be a powerful tool to interpret how conservation has affected the landscape.
- ❖ The conservation storyline alludes to the CCC role but should direct visitors to Colton Point for the in-depth story (see Northeast CCC Itinerary).
- ❖ The rail-trail should be interpreted for this story including the recovery of the Pine Creek fishery and valley history.
- ❖ The rail-trail should tell the same story with non-sequential waypoints since visitors come from both directions.
- ❖ On the northern end, signage should interpret the acid mine drainage of Babb Creek. Because there is subtlety about how the acid mine drainage recovery works, the Pine Creek Valley environmental educator should offer personalized interpretation of acid mine drainage in the context of the larger conservation storyline. DCNR should work with private tour operators and other institutions to offer a menu of fee-based interpretive programs throughout the year, bringing a diversity of groups to Babb Creek.
- ❖ To the extent possible the trail system within the area will link up with other trails and use the junctures as opportunities to reinforce DCNR messages about the agency's efforts in conserving public lands in Pennsylvania.

Cook Forest State Park

Priority: High

Cook Forest is recommended for early action because of the outstanding old growth forests and the need to rehabilitate the trails in the Forest Cathedral to provide sustainable trails that are appropriate for the intended visitor. The present interpretive focus at Cook Forest is on naturalist programs. The Cook Trail has a few low-tech laminated posters on various old growth and forest issues spaced along the trail. There is no interpretation along the Longfellow Trail or at the trailhead, which is the most visited old growth stand in the park. With the highest annual visitation among state parks in the Wilds and the largest remaining old growth white pine in the eastern United States, DCNR has a tremendous opportunity to enhance the experience at Cook Forest State Park and reach a large volume of DCNR visitors with high quality interpretive exhibits. Cook Forest State Park is also recommended for inclusion in the Old Growth Forests Rediscovered itinerary in the LHRIP along with Hearts Content Scenic Area and Tionesta Scenic Area (Allegheny National Forest), and Ander's Run Natural Area (Cornplanter State Forest).

Recommendations

Fermata recommends developing an interpretive site plan for Cook Forest State Park that describes the stories, media and sites for interpretation. The LHRIP provides the following recommendations:

- ❖ The Old Growth Forests Rediscovered driving tour is a smaller version of the DCNR old-growth auto-tour. DCNR personnel helped the interpretive planners choose sites for variety and proximity. The tour should interpret old-growth stand ecology, how each of these sites survived, how much is left, and what makes them so special. It should also emphasize that old-growth, like all forest types, is changing, matching the underlying current of change in the LHR.
- ❖ In general, interpretive signage should be located on stands' edge, near trailheads, so as to minimize interruption of the visitor's experience of virgin forest. This tour should also include a walking booklet with trail maps, again to minimize visual distractions on site.
- ❖ Cook Forest State Park has a great conservation story as well as four different old-growth stands, one of which is hardwood. The tour should visit the hardwood site, the only one on the itinerary. Perhaps most relevant is that the park is planning a major overhaul of the trails and interpretation to make it world-class. This is an ideal opportunity to dovetail the interpretive plan with the site.

Sightseeing

Visit Interpretive Centers

Interpretive centers with professionally designed exhibitry and thematic focus are lacking in the Pennsylvania Wilds. A few state parks have nature centers with a variety of touchy-feely exhibits that are more oriented toward environmental education. Exhibitry that provides information, interpretation and education on the vast natural resources and issues in the Wilds is needed to enhance experiences and communicate conservation messages to visitors. Interpretive centers function as either Portals, which is a site designed to expose or introduce visitors to immediately accessible resources, or as Gateways, which function as an entranceway to

a tourism region that offers guidance and navigation to visitors about recreational opportunities and is usually located along major transportation routes.

Sinnemahoning State Park Portal

Priority: High

This site is recommended as a model for an interpretive center. A nature tourism portal for Sinnemahoning was recommended in the *Elk Watching and Nature Tourism Plan*. Visitor center space is incorporated in the new office/incubator facility that is currently in the planning stages. Sinnemahoning State Park is one of the premier places in the Wilds for wildlife watching. The park is featured in the Elk Scenic Drive guide and wildlife viewing areas have been enhanced as part of that project. What makes Sinnemahoning special is the wide variety of viewing opportunities available. The park offers a variety of habitat for bird watching that includes a nesting Bald Eagle pair. The park is within the Pennsylvania elk range and a viewing area has been established on the north end of the park. The high quality streams and waters make for good amphibian and insect viewing opportunities. The scenic lake and stream setting provide ample opportunities for viewing scenery and nature photography.

Recommendations

- ❖ Fermata recommends interpretive exhibitry in the visitor center that focuses on wildlife watching and wildlife conservation issues in the Pennsylvania Wilds. Visitors should be able to gain information on good wildlife watching sites, techniques for successful watching and have a better understanding of wildlife conservation needs as a result of visiting the center.
- ❖ A secluded bird feeding station visible from a window in the center would provide up close viewing of bird and small mammals with nearby exhibits to help visitors identify common species. Include seating at the window and a microphone outside so that visitors can hear the birds at the feeder.
- ❖ A small sales area could provide junior and full size identification guides, as well as other publications on wildlife watching in Pennsylvania.

Rocky Mountain Elk Foundation Center at Benezette

Priority: High

The *Elk Watching and Nature Tourism Plan* recommended a major interpretive center in the Winslow Hill area. The Plan recommended improvements such as restrooms, additional parking, interpreted viewing and photography trails, blinds and platforms, staff prepared to answer questions and direct visitors to local goods and service providers, as well as personnel to help manage visitation to the region.

The Rocky Mountain Elk Foundation (RMEF) has expressed interest in a public-private partnership under which they would operate the facility if the Commonwealth would support the development of the facilities with Capital Budget Funds. RMEF has acquired a 250 acre parcel in the Benezette area that is suitable for this development. The Commonwealth has authorized Capital Budget financing for the project. There have been no formal agreements yet for the center as each party continues to study options and feasibility.

S.B. Elliott State Park Gateway

Priority: High

A gateway center to the Lumber Heritage Region and the Elk Scenic Drive was recommended in the *Elk Watching and Nature Tourism Plan*. S.B. Elliott State Park was suggested by Fermata and DCNR selected this site and has begun the design stage of this project. The gateway, established along I-80, will promote the entire gamut of resources within the Pennsylvania Wilds, rather than be limited to the natural resources. The gateway should be staffed by general tourism information specialists who would receive near real-time sightings and condition updates from site managers. The gateway center includes a welcome center, interpretive center and rustic lodge.

Recommendations

- ❖ Fermata recommends the interpretive center be focused on the broad array of opportunities in the Wilds. Rather than provide a high level of detail on one subject, the exhibits would provide an overview of the experiences, facilities and conservation issues of the region. The exhibits should entice visitors to venture further into the Wilds.
- ❖ This would be the ideal place to educate visitors on Pennsylvania's influential conservation history.
- ❖ The welcome center should be prepared to meet all a visitor's information needs, such as recreation opportunities, lodging availability, community services, historic sites, shopping and events.

Driving for Pleasure

Attributes of a Model Facility

- ❖ Frequent developed or undeveloped waysides where people can pull over to take a photo, explore the area, have a picnic or just stretch their legs. Example: Blue Ridge Parkway
- ❖ Roads that are wide enough to provide two lanes of traffic.
- ❖ Signage that provides direction to nearby public and private services and facilities.
- ❖ Above average scenery – consider both public and private land.

Elk Scenic Drive

Priority: High

This 127-mile drive is recommended as a model facility for driving for pleasure. During field assessments, Fermata staff had an opportunity to review the Elk Scenic Drive to evaluate the implementation and identify missed opportunities. The addition of visitor infrastructure to this region of the Wilds constitutes a remarkable step forward. During our assessments, we were surprised to find visitors at the viewing sites on weekdays and were pleased to watch how visitors reacted to the improvements. The following suggestions and comments are minor in nature and serve as the finishing touches for this great opportunity.

Recommendations

- ❖ Wallace Sphagnum Bog
 - Sign missing after turn off of PA 153.
- ❖ Beaver Dam Run Wildlife Viewing Area
 - Apply a layer of finer gravel on the pathway for accessibility. All pathways should use a finer grade of gravel at each site on the Elk Scenic Drive.
- ❖ Hoover Farm Wildlife Viewing Area
 - The gravel on this pathway is ideal.
 - Install a gate on the old road past the parking area. The large log is not a suitable barrier.
 - We noticed that people are walking the road instead of the pathway. Need to discourage this use through a sign (Shhhh! Wildlife ahead – Walk this way), or by design (plant grass on the road).
- ❖ Wykoff Run Natural Area
 - Remove abandoned Curtiss-Wright buildings and restore site. The ruins encourage vandalism and parties.
- ❖ Gilbert Farm Elk Viewing Area
 - The information on the bulletin board is very technical and wordy.
 - The height and design of the bulletin board is not accessible to persons with disabilities.
- ❖ Dent's Run Elk Viewing Area
 - Public parking should be restricted to the lot directly off the road (except for persons with disabilities). Allowing people to park among the trees will compact soil and eventually kill the trees.
 - Install permanent vault restrooms and supplement with portable toilets during peak periods.
 - Information on the bulletin board is wordy and type too small for accessibility. Need professional signs with appropriate text and engaging graphics.
 - Signs posted on the other side of the overlook ask people not to go beyond overlook. But the text is too small to read, and some people go beyond the overlook to read them. Suggest a new positive-worded sign with concise text to encourage compliance, such as "For your safety, stay on the overlook."
- ❖ Pine Tree Trail Natural Area
 - The trail is too steep where it leaves the Hicks Run Road, install steps to control erosion.
 - Need to sign intersections with other trails. Hikers may inadvertently take the wrong trail.

- ❖ Hicks Run Wildlife Viewing Area
 - Move One-Way sign to island. When roadway is covered with snow, drivers may drive off the road, as one-way signs are typically posted on the far side of a road as you approach.
 - Interpretive signs have been mounted in a wooden frame that covers some of the graphics and holds water and debris. The wooden frame is also showing signs of weathering and mold.
 - Some of the low profile signs have been mounted too high for accessibility (30 inches from trail to lower edge recommended).
- ❖ Bucktail Path Trailhead
 - Need a sign at PA 120 that directs people to trailhead.
- ❖ Lower Jerry Run Natural Area
 - Signs that direct visitors from PA 120 do not point people in the same direction as the text in the brochure. The signs direct people to use Jerry Run Road, which is a narrow and steep road.
 - A sign is needed at the end of the trail. The trail marking stops, but the trail continues.
 - Trail rough though the laurel with roots that catch your boots, and branch stubs that twist your ankles.
- ❖ Cranberry Swamp Natural Area
 - Access road is primitive and requires four-wheel drive and high clearance. Suggest that a better road is warranted for a site on the Elk Scenic Drive.
 - Need to provide improved parking at a trailhead.
- ❖ Two Rock Run Scenic View
 - Suggest installation of a modern vault restroom at this site. There are no restrooms south of Renovo (except for a poor condition facility at Jesse Hall Picnic Area). Porta-potties are not permanent or aesthetic solutions. Concrete units may be a good solution if vandalism is a concern.
http://www.romtec.com/product_detail.php?id=39&category=waterless&familyID=
- ❖ State Game Lands 100
 - Directional signs are not located at the right road intersection.
- ❖ German Settlement Reclamation Project
 - Evidence of vehicle use on food plots. Need to block vehicles from leaving the parking area.
 - Existing parking area does not give you a good view of the food plots. A location off the German Settlement Road provides a better view of more varied habitats.

Trails and Roads

Day Hiking

Attributes of a Model Facility

- ❖ Loop system that provides a half-day (¼ -5 miles) and full day (5-15 miles) excursions. Loop patterns avoid backtracking requirement of linear trails and allow you to incorporate more trail miles into a small area. You can design the loops with internal cutoff trails to offer different lengths and user experiences.
- ❖ Directional signing at road and trail intersections.
- ❖ Mount signs on posts rather than trees.
- ❖ Maintain trail grades at less than 10%.
- ❖ Trails are marked with reassurance markers.
- ❖ Interesting landscapes, unique natural features, historic sites and good wildlife watching opportunities with interpretation signs on site or text on the trail map. Interpretive signs are more appropriate in areas of higher development.
- ❖ Developed trailhead with information, site entrance sign, and off road parking.
- ❖ Restroom at trailheads with high use.
- ❖ Detailed trail map, especially for systems with a spaghetti-like network of trails. The weather conditions and site conditions may make it confusing to navigate the trail system. A good sign plan and map will ensure visitors do not get lost. Show GPS coordinates for trailheads.
- ❖ Periodic maintenance.
- ❖ Provide higher developed trails in state parks. As you move farther away from nodes of development, trails should be more primitive, with most primitive trails being in designated wild areas. Trails within state parks should not be challenging and should traverse interesting landscapes with varied habitats to encourage learning and exploration.

Cook Forest State Park

Priority: High

Cook Forest State Park offers over 30 miles of trails that provide an ideal way for visitors to explore the distinctive landscapes and is recommended as the model for day hiking. Many of the trails were built for an easier level of difficulty. The trails traverse scenic and interesting landscapes. The four old growth stands can be experienced up close and personal on trails. The River Trail provides a peaceful scenic hike along an undeveloped portion of the Clarion River and a hike through a mountain laurel thicket. The Liggett Trail follows along an old road and offers scenic views of a moss-shrouded valley. A winter hike along the Ridge Trail may surprise you with a view of a White-winged Crossbill.

The Cook Trail provides the premier old growth experience in the park. The western part of the loop follows an intermittent stream that is draped in moss and large woody debris. It has a very rugged and western feel. Impressive tree specimens can be found throughout the trail. Large American chestnut snags still stand in the old growth forest, 80 years since they perished from blight. The trail follows a good design: easy gradient, defined tread, scenic trailside, adequate maintenance and consistent marking. Home grown interpretive signs can be found along the whole length of trail (2 miles). The signs cover old growth topics, identify tree species, effects of deer browsing and history. The trail passes a dynamite shack that was built and used by the CCC, which had a camp nearby.

The River Trail starts at Seneca Point and travels down slope to the Clarion River then returns to the plateau by climbing up a rocky intermittent stream valley. The section of trail below the firetower is one of the most scenic trails in park. The trail passes through an extensive thicket of mountain laurel and is breathtaking in mid-June. However, the trail on this side slope is not well designed and has not been maintained. This part of trail has a few switchback sections that follow gentle grades and are in good condition, but users have created shortcuts that go straight down the slope which has resulted in trail erosion and vegetation loss. Some of this trail section does not follow sustainable grades and soil erosion has made the trail rough with roots and rocks, and difficult to follow because users have branched out to find a smoother or more direct path. Due to the steepness on this side slope, most of the trail should be switchbacked in order to maintain acceptable grades and reduce soil erosion.

Currently, the trail system is more suited to experienced hikers because of its deteriorated condition. The trails are minimally signed, reassurance markers are inconsistently used, and the state park map does not display the true relationship between the trails and other park facilities, so it is easy for the less experienced to get turned around (Fermata staff has encountered lost hikers in Cook Forest).

Recommendations

- ❖ Fermata recommends the development of a large scale trail map to aid visitors in navigating the system. A topo map at 1:12,000 scale will reduce clutter and provide enough space to identify unique scenic, historic and geologic features along the trails. Trail and facility locations should be based on GPS data.
- ❖ Develop and implement a sign plan that is oriented toward providing clear and consistent signing for novice trail users. The trails in the park are marked with a variety of reassurance markers and some trails are not marked at all.
- ❖ The traffic on the state roads that traverse the park can make crossing the roads hazardous. Install “trail crossing ahead” signs on PA 36 and Forest Drive.
- ❖ Evaluate trails to identify problem areas and realign sections that have erosion problems because of excessive trail grade.
- ❖ Correct drainage problems on trails with new culverts and improve trail surfaces.
- ❖ At the Seneca Point area, efforts should be taken to keep visitors on hardened surface and improved pathways. Soil compaction has reduced vegetative cover and will affect tree health eventually.

Backpacking

Attributes of a Model Facility

- ❖ Loop system that provides both weekend backpack trips (15-20 miles) and longer than two day backpack trips (30+ miles). Loop patterns avoid backtracking requirement of linear trails and allow you to incorporate more trail miles into a small area. You can design the loops with internal cutoff trails to offer different lengths and user experiences.
- ❖ Trailheads at state parks or other supervised locations that provide security for vehicles left overnight, and services such as showers, visitor center, and telephone.
- ❖ Directional signing at road and trail intersections.
- ❖ Mount signs on posts rather than trees.
- ❖ Maintain trail grades at less than 15%.
- ❖ Trails are marked with reassurance markers.
- ❖ Interesting landscapes, unique natural features, historic sites and good wildlife watching opportunities.
- ❖ Developed trailhead with information, site entrance sign, and off road parking.
- ❖ Restroom at trailheads with high use.
- ❖ Detailed trail map with topographic lines, trailheads, GPS coordinates for trailheads, services (telephone, post office, food, lodging), unique natural features identified on map, intersecting trails and roads, streams with names, campsites, and mileage between road and trail intersections. Trail location should be based on GPS data.
- ❖ Periodic maintenance.
- ❖ Provide Adirondack shelters along the trail at locations that are not accessible by open public road, but do have gated road access for construction and maintenance. Oil Creek State Park has an excellent model.

Quehanna Trail

Priority: High

Among backpack trails, the Quehanna Trail received the highest rating in our assessments and is recommended as a model backpacking trail. This is primarily due to the variety and quality of natural habitats and wildlife watching opportunities. Reassurance marking is good on the sections that were assessed. There is limited signage at road crossings and limited parking at most crossings. The trail is generally cleared of brush, but some sections are overgrown. Most of the trail tread is in good shape, but there is some erosion on steep sections and need for sidehill trail construction. There is a waterproof map available and there is also a guide to the trails of Moshannon State Forest that gives a good trail description as well as some historical information. Volunteers from the Quehanna Area Trails Club maintain the trail.

Most people who hike the entire trail start and finish at Parker Dam State Park. Two other sites serve as registration points; one is the Forest Headquarters along the Quehanna Highway and the other is on the Quehanna Highway near Piper. There are two cross connector trails that can be used to form smaller loops.

As described in the Broad Recommendations section of this chapter, Fermata recommends hiring a trail crew for trail maintenance. The professionally trained crew will have the skills and knowledge to maintain and rehabilitate the trail to quality guidelines. The crew can supervise and train volunteers, and ensure their efforts are effective. Relying solely on volunteers for trail maintenance is not in the best interest of the DCNR or the hiking public. DCNR needs to set the standard for trail design and maintenance to ensure safe facilities, sound stewardship and pleasant experiences. Any improved facility on the land requires active management to limit liability and this is not a role that should be left in the hands of volunteers.

The most sustainable trails maintain a grade that does not exceed 10% except for short sections where it is not avoidable. Trails should follow along the sidehill at a steady grade as a way of gaining or losing elevation. On sidehill locations, the tread should be constructed with hand tools to provide a benched trail surface. Trails located in the stream channel were not uncommon in the Wilds. Although the streams were absolutely dry during Fermata's assessments, it was obvious that occasional gully-washers scour the valleys and wash out the trail. A sidehill location beyond the reach of typical flood waters would provide a more pleasant hiking surface that is less susceptible to being washed out.

The trail is marked adequately with reassurance markers, but signing at roads is often absent or not prominent to motorists. Signing on trail serves two purposes, signing to help the user negotiate the trail, and signing to help users find the trail. Signing for the user on the trail uses smaller fonts and is primarily located within the trail system. An example is signing at each intersecting trail, where it is important to display the names of each trail and distance to the closest landmarks, like roads or streams. Signing to help users find the trail is erected at road intersections and uses a larger font size that is clearly visible to passing motorists.

Recommendations

- ❖ Sections of trail that exceed 15% grade and those that go straight up/down a slope should be realigned to provide a safer more ecologically sound trail.
- ❖ Realign stream channel trails to sidehill locations out of the reach of typical flood waters.
- ❖ Develop and implement a sign plan for the Quehanna Trail and intersecting trails.

Visit a Wilderness or Primitive Area

Hammersley Wild Area

Priority: High

The Hammersley Wild Area is recommended for improvements to serve as a model of how such sites are made accessible to the public. Improved facilities within wild areas should be minimal and at a primitive development level. Trails will be the primary facility. Improved trailheads are needed at the boundaries of the wild areas. Producing a large scale map of the wild area will provide a valuable tool for explorers and hikers.

A primitive trail still needs to be constructed to best management practices. Using best management practices is even more important within wild areas as there is an additional objective to preserve the integrity of the area. Maintenance will be less frequent so design techniques that minimize maintenance needs will keep the trail in good condition with less effort. The trails Fermata assessed did not exhibit good design and were in rough condition as a result. Trails going straight down steep slopes were eroded (fall-line trails). Trails followed valley bottoms and were subject to frequent trail wash-outs. Many properly constructed sidehill trails (likely constructed by the CCC) have not been maintained and were in rough condition. A high level of difficulty should not mean the trail is difficult to negotiate, it means the landscape is rugged, remote and poses hazards (poisonous snakes, sudden weather, etc.).

Recommendations

- ❖ Develop improved trailheads at the wild area boundary. Choose locations at well used trails or popular places for stream access. Consider the distribution of improved sites around the boundary. An improved trailhead at a minimum includes hardened parking, identification signs and a bulletin board with information. For trailheads with heavy use, a vault restroom is recommended.
- ❖ Provide bulletin boards at the boundary or trailhead with professional panels that include photos and graphics. One panel should focus on Wild Area regulations and Leave No Trace ethics. A second panel should be specific to the Wild Area, with information such as unique natural, cultural and historic features, wildlife and habitats, trails and other applicable recreations, map of wild area, and any cautions or hazards.
- ❖ Fermata recommends the development of large scale maps of each wild area. The format should follow the layout of the DCNR produced hiking trail maps. Displaying the mileage directly on the map between each road and trail intersection allows easier calculation of mileage regardless of the route traveled. Trail location should be based on GPS data. The text description of the trailheads should include information on level of accessibility, location, facilities and size of the parking lot. The map should display symbols for unique natural features (such as waterfalls, rock outcrops, etc) and name unique landforms if available. Any historic ruins or cemeteries in the area should be named. Use recreation symbols to identify features, such as campsites, restrooms and waterfalls. Add symbols to the map to show private services available (food, lodging, telephone, campgrounds) on the extent of the map. Offer the map on waterproof paper for a small fee to cover printing costs.
- ❖ Evaluate trails to identify problem areas and realign sections that have erosion problems because of excessive grade or fall-line trails. Realign trails to grades less than 15%.
- ❖ Move trails from valley bottoms to a sidehill location beyond the reach of typical flood waters to provide a more sustainable trail surface that is less susceptible to being washed out.
- ❖ Schedule regular trail maintenance.
- ❖ Erect directional signs along state highways to direct visitors to wild area trailheads.

Mountain Biking

State Forests

The vast network of roads and trails on state forest lands is an untapped opportunity best suited to mountain bikes. Fermata's site assessments found minimal evidence of mountain biking use across the Wilds except in the State College area, where there is an active biking group (<http://www.nittanymba.org/>). A quick tour through their forum indicates that riders tend to stick closer to home and that word of mouth is the primary method for learning about new trails. There seems to be a hesitance in venturing to an unknown area and possibly not have a good ride. Mountain bikers are also not a traditional recreationist in much of the Wilds and may perceive themselves to be unwelcome.

Chris Reese, manager at Black Moshannon State Park, is an avid mountain biker and sees unlimited opportunities for biking on state forest lands. The Black Moshannon area of Moshannon State Forest gets some mountain bike traffic from the State College area. They use a combination of roads and singletrack trails to form loops. The same road and trail facilities exist all across the Wilds. Fermata recommends promoting mountain biking on state forest roads and delaying the promotion of singletrack (trail) biking until there is more expertise in the Wilds for building and maintaining this kind of trail. Biking on trails can accelerate erosion and exacerbate poor trail design. Improving the state forest public use maps, as described in the Broad Recommendation at the beginning of this chapter, is the chief improvement needed to provide for the needs of mountain bikers. The map text should include language about the kinds of allowable uses and suggestions as to where they can pursue their activity.

Attributes of a Model Facility

- ❖ Loop system that provides a half-day (5-10 miles) and full day rides (10-20 miles). Loop patterns avoid the backtracking requirement of linear trails and allow you to incorporate more trail miles into a small area. You can design the loops with internal cutoff trails to offer different lengths and user experiences.
- ❖ Trails are marked with reassurance markers.
- ❖ On single-track trails, single direction trails are preferred due to the dangers involved with bicycle passing.
- ❖ Directional signing at road and trail intersections.
- ❖ Mount signs on posts rather than trees.
- ❖ Maintain trail grades at less than 10%. Avoid steep downhill grades that will pose erosion problems from continual braking and skidding.
- ❖ Interesting landscapes, unique natural features, historic sites and good wildlife watching opportunities.
- ❖ Developed trailhead with information, site entrance sign, and off road parking.
- ❖ Restroom at trailheads with high use.

- ❖ Detailed trail map with topographic lines, trailheads, GPS coordinates for trailheads, unique natural features identified on map, intersecting trails and roads, streams with names, and mileage between road and trail intersections. Trail location should be based on GPS data.
- ❖ Periodic maintenance.

Eagleton Mine Camp Trail, Sproul State Forest

Priority: High

This shared-use trail is a recent addition to the trail opportunities in the Sproul State Forest and is recommended as a model mountain bike trail. The trail is open to hikers, equestrians and mountain bikes, but based on tread wear, it appears that mountain bikers are the primary user. The trail is marked well and has routed signs at trail and road intersections. Two improved trailheads provide ample hardened parking and direct trail access.

Fermata’s site assessment noted that along all sections walked, that mountain bike use is creating a trench, or wheel rut down the trail. This rut is deeper on wet soils and on slopes exceeding 8-10%. When trails become entrenched, they often will flow with water during rain events, which further deepens and erodes the trail surface. When an entrenched trail is located near an existing stream course, the stream may start flowing down the trail if the channel is blocked with debris. The ability of any trail to manage water will determine how much maintenance the trail needs and the quality of the recreation experience.

A few bridges cross intermittent streams that would be easy to cross by walking across. The bridges are overkill on streams this small (no evidence of water during the assessment). It would have been easier and less expensive (to build and maintain) to improve the approaches to the streams. Some bikers are bypassing the bridges. Further, the bridges were not built to sustain horse use.

The Scalded Meadows Trail section shows frequent signs of soil erosion where the trail goes straight up and down slopes (a “fall-line” trail). The best way to prevent erosion in hilly terrain is to construct the trail on sidehill locations and maintain moderate grades. Even on moderate slopes, the trail should never go straight up the slope of the hill. Winding the trail across the face of the hill, gradually gaining altitude by using sidehill trail construction and broad, sweeping switchbacks, provides for a more stable trail because surface water does not run down the trail. This area provided many opportunities for a trail layout that follows sustainable grades on sidehills. Mountain bike and horse use have a greater impact on trails, so good trail design is critical to reduce environmental impacts. Waterbars and trail hardening will have a short term affect on slowing erosion, and will be little more than a band-aid. Employing trail design principles takes more time during layout phase, but pays dividends over the life of the trail in lower maintenance costs and environmental impacts.

The section of trail following the Eagleton Railroad is fascinating in that sections were built above and below normal ground surface in order to maintain a steady 2% grade. After the trail leaves the old grade, it travels on a good sidehill location and maintains a sustainable grade. However, parts of the trail have not been benched and walking on the rough sidehill is tiring. A switchback on this section is poorly constructed and eroding severely under biking use. A small bridge crosses an intermittent stream that should have been crossed with an improved ford. Many horses will not use bridges, so improved fords are the stream crossing of choice on trails open to horse use.

This trail will not hold up well under mountain bike and horse use. Evidence of horse use was not apparent during the site assessment, but the trail has been written about in horse guides and websites. Soil impacts are quicker to manifest themselves on trails open to horse and bike use. Since many sections of the trail are located in the bottoms of stream valleys, a wetter than average season is likely to result in gullied or washed-out trails. The only permanent solution is realignment of valley bottom and fall-line trail sections. Water bars and trail hardening are maintenance intensive and short-lived fixes.

Good trail design protects the environment, enhances the trail experience and reduces landowner liability. The design of the trail dictates how often trail maintenance is needed. For most agencies, there is always more than enough money to build new facilities, but never enough to maintain them. An investment in good trail design will reduce future maintenance needs.

Recommendations

- ❖ Evaluate trails to identify problem areas and realign sections that have erosion problems because of excessive trail grade.
- ❖ Realign fall-line trails to grades less than 10%.
- ❖ Move trails from valley bottoms to a sidehill location beyond the reach of typical flood waters to provide a more sustainable trail surface that is less susceptible to being washed out.
- ❖ Reconsider policy that encourages horse use and mountain bike use on the same trails. Bicycle use is typically incompatible with horse use because bikes tend to travel quickly and quietly which can spook horses and pose a great danger to the horse, rider, and biker. Incidental and light use from both user groups may not pose a problem. It is important to evaluate other trail uses on trails that are designed for a specific user group. The incompatibility between horse and mountain bike use is one of the more serious because of the safety risk.
- ❖ A directional sign is needed on PA 120 to direct users to the trail system.
- ❖ Fermata recommends DCNR request a Trail Care Crew from the International Mountain Bike Association (IMBA) to improve trail design and train employees (<http://www.imba.com/tcc/>). The trail care crews have been traveling across the United States since 1997 providing trail expertise to local clubs and agency personnel. IMBA also provides Trailbuilding Schools that include classroom and hands-on learning in the field. There is no better resource on mountain biking trails than the IMBA.

Rail-Trail Biking

Pine Creek Rail-Trail

Priority: High

The Pine Creek Rail-Trail offers superb scenery, accessibility for persons with disabilities and easy difficulty level, and is recommended as a model of rail-trails in the region. The trail is well designed and maintained. All of this combines to offer one of the best trail experiences in the Wilds.

Recommendations

The Pine Creek Early Action Plan was completed in August 2005 and implementation has been initiated. The plan made recommendations on signing, linking area opportunities together, interpretation (see recommendation in the Heritage Tourism section above), visitor centers, revenue strategies, developing quality standards, and strategies for managing recreation use. Additionally, Fermata staff identified a new need of adding benches and picnic tables at regular intervals along the trail.

One of the early action plan recommendations was developing a comprehensive recreation map for the whole valley. The trail map for the West Rim Trail is a good example of the kind of map needed for the entire length of the valley. During our exploration of the rail-trail, we found this map to be useful in identifying interesting landscapes and in pinpointing our exact location. A map of this kind is also very useful in trip planning. Displaying the mileage directly on the map between each road and trail intersection allows easier calculation of mileage regardless of the route traveled. Trail locations should be based on GPS data. The map should also display symbols for unique natural features (such as waterfalls, rock outcrops, etc) and name unique landforms if available. Any historic ruins or cemeteries along the route should be named. The text description of the access areas should be enhanced with information on level of accessibility and size of the parking lot (mention if site regularly fills on popular weekends - like Blackwell). Provide a similar description of all designated camping areas. Use recreation symbols to identify features, such as campgrounds, restrooms and waterfalls. Add symbols to the map to show private services available (food, lodging, telephone, campgrounds) on the extent of the map. Offer the map on waterproof paper for a small fee to cover printing costs.

The bike trail at Oil Creek State Park is a good model to follow for bike trails. There are frequent benches along the trail at scenic views, interpretive signs tell the visitors more about the fascination history of the area, and hiking trails intersect with the bike trail which creates a multitude of loop hiking opportunities.

Horseback Riding

Attributes of a Model Facility

- ❖ Loop system that provides half day trips (3-5 miles), full day trips (7-10 miles) and weekend trips (15-25 miles). Loop patterns avoid backtracking requirement of linear trails and allow you to incorporate more trail miles into a small area. You can design the loops with internal cutoff trails to offer different lengths and user experiences.
- ❖ Directional signing at road and trail intersections.
- ❖ Mount signs on posts rather than trees.
- ❖ Trails are marked with reassurance markers.
- ❖ Maintain trail grades at less than 10%.
- ❖ Mountain bike and horse use are generally incompatible on the same trail system. Encouraging both in areas with light or incidental use can work with good information signs about sharing the trail (provides detail on etiquette and safety).

- ❖ Interesting landscapes, unique natural features, historic sites and good wildlife watching opportunities.
- ❖ Spacious developed trailhead that allows for use of large vehicle-trailer combinations, ideally a parking arrangement that allows for pull-through parking similar to what is commonly found at motorized boat launches. Site should include bulletin board (trail map, emergency information, regulations and warnings), site entrance sign and a restroom at trailheads with high use.
- ❖ Provide horse tying structures at trailheads, camping areas and scenic features, or provide prominent information on correct way to tie horses. It is not acceptable to allow horses to be tied to trees or to be stabled on soft soils or where horses can damage tree roots and chew trees.
- ❖ Detailed trail map with topographic lines, trailheads, GPS coordinates for trailheads, services (telephone, post office, food, lodging), unique natural features identified on map, intersecting trails and roads, streams with names, campsites, mileage between road and trail intersections.
- ❖ Periodic maintenance.

Kettle Creek Equestrian Trail

Priority: High

The Kettle Creek Equestrian Trail is recommended as a model site. The trail connects a system of roads, pipelines, CCC trails and closed roads in the Sproul State Forest. Upgrading the trail to a model site would involve the cooperation between staff at the state park and the forest district. The trailhead/camping area is located at Kettle Creek State Park. The trail samples a variety of upland and valley ecosystems. This 20-mile trail system is open to all non-motorized uses and parts are open to snowmobiles. The trail was found to be in good condition and to have good sidehill trail design. There were signs of horse use on the trails and at the trailhead, but intensity of use was light.

The trail follows old roads and CCC trails that provide a suitable base for horse use. Sections of trail to link these established routes needs to be built at grades below 10%, which will minimize maintenance needs and soil erosion. The preferred method to cross streams is with an improved ford. A good ford has a smooth stream bottom on a straight section of stream to reduce scouring effects. Choose a stream section with low or gradually sloped streambanks to reduce disturbance to the streambank. Harden the approaches to the streambank to reduce sedimentation into the stream. The trail will also need to be hardened where the trail crosses wet or poorly drained areas. The Pennsylvania Equine Council has been using a geocell and geotextile system which provides a durable base that still permits water to flow through.

The lack of trail signs and reassurance markers is a problem. It took quite a bit of trial and error to locate trails and this was done by using the topographic map to identify landforms. It is simply not enough to provide a map without also signing and marking trails. Some of the trail intersections were signed with diminutive trail signs that were not in plain sight. Most of these intersection signs were not visible or oriented to every trail entering the intersection. At the end of the Crawford Road, there are several trails that branch out, including the Donut Hole Trail. There were no signs for the equestrian or hiking trail, which probably results in some equestrians traveling down the Donut Hole Trail, which is not open to horse use.

Fermata's site assessment found that there were no signs where the trail leaves Beaverdam Road and climbs Left Fork Beaverdam Run. It took about a half hour to investigate possible trails before finding the trail. There were numerous places where equestrians had wandered the area looking for the trail. The trail is not marked, which made locating the trail more difficult. In fact, this stretch of Beaverdam Road had many more road intersections than shown on the maps, and coupled with the lack of trail signs and markers, it was difficult to figure out where the trail was.

The absence of trail reassurance markers makes it difficult to navigate the trail system. What would happen if a trail user accidentally left the trail and found themselves miles from their intended destination as daylight dwindled?

The trailhead/campground is minimally developed. The access road (Beaverdam Road) has not seen any maintenance for a while and is eroded and potholed. Consider that equestrians will be pulling long trailers with equipment that can easily exceed \$50,000 in value. The trailhead/campground is in the floodplain of Beaverdam Run and is a large grassy area without roads or hardened areas. This is suitable when the weather has been dry, but could become unsafe during wet weather. No one pulling a heavy, expensive rig will want to risk getting stuck in the mud. Further, not providing hardened surfaces for vehicles leads to soil erosion, soil compaction and tree injury. It is important for the health of the riparian area and the safety of users to provide adequate facilities for recreation use. The intensity of use is low and there is little evidence that soil compaction and erosion are occurring, but this will not be the case if use increases, or during wet periods. As equestrian use increases at the campground, the impacts to Beaverdam Run will increase. Equestrians will want to water their horse directly in the stream rather than carry water to the horse. Protect Beaverdam Run by limiting horse use in the stream and provide a manure bin to protect water quality.

An important consideration at any equestrian camping areas is method of tying or stabling horses. Horses will need to be secured at the site for extended periods. Allowing horses to be tied to trees is not acceptable and will result in damage to tree bark and roots from chewing and pawing. It does not take long for serious tree damage to result when horses are kept in a wooded environment. At present, the state park website encourages tying to trees (<http://www.dcnr.state.pa.us/stateparks/recreation/equest.aspx>). There are a number of options:

- 1) Roofed, open tie stalls with hardened ground surface. Keeps horses out of direct sun in a minimum amount of space on a surface designed to withstand the impact.
- 2) Highline attached with tree saver straps. Low cost option. This option takes up a lot of space as riders prefer to keep their horses out of reach of other horses. Need to consider hardening the ground beneath the highline to protect soils and trees.
- 3) Allow campers to erect portable electric fences. Low cost option. Uses most space per horse. As horses can roam freely within the fence, a larger ground surface will be chewed up. Need to restrict where portable fences are allowed in order to protect wet soils and trees. Not an effective use of space.
- 4) Hitching rail. Only appropriate for short time periods. A good option at trailheads and scenic features along the trail.

The final consideration for horse use is whether horse use will be permitted year-round or only seasonally. Many public land managers impose seasonal restrictions as a tool to reduce trail impacts. During the spring thaw and the fall wet seasons, trails are very susceptible to damage.

The trail map is black and white photocopy of a topo map with the trails overlaid. The map was sufficient to help in wayfinding, although it was difficult to differentiate between roads, streams and topo lines because all lines were black.

Recommendations

- ❖ Fermata recommends signing at every trail and road intersection that identifies the trail name and the directions of travel. To aid in wayfinding, where a trail comes to a road or named stream, the name should be identified. Signing should be consistent between the state forest and park (it is not at present).
- ❖ Install reassurance markers along trail.
- ❖ Display all roads on maps so that visitors can navigate effectively.
- ❖ Improve the trail map. A color map similar to that provided for the West Rim Trail would assist trail users in navigating this system more efficiently. Fermata recommends adding narrative information to the map such as a trail description, trailhead description, mileage, difficulty level and relevant regulations. All roads should be shown on the map, as well as other trails that intersect with the Kettle Creek Equestrian Trail. Trail location should be based on GPS data.
- ❖ Beaverdam Road needs to be widened and improved to the trailhead/campground to accommodate the intended user.
- ❖ At the equestrian camping area in Kettle Creek State Park, a hardened loop road with campsite spurs needs to be developed. Campsite spurs should be wide and long to accommodate a variety of horse camping equipment (18 by 60 feet is a good dimension). Camping should be limited to established campsites to protect sensitive soils and vegetation.
- ❖ The sign plan for the trailhead/campground should include a prominent sign at the intersection of Beaverdam Road and SR 4001 to direct equestrians to the site, a site entrance sign where the campground roads leaves Beaverdam Road, and a bulletin board with detailed information on trails, etiquette, and regulations.
- ❖ Provide a manure collection bin to protect water quality.
- ❖ Provide an accessible vault restroom in a central location in the campground.
- ❖ Provide direction for tying horses at the trailhead/campground and along the trails. Consider constructing horse tying structures at the camping area to control resource impacts.
- ❖ At the trailhead/campground, limit horse use in Beaverdam Run by either developing hardened pathways to the stream and restricting horse use to these paths, or not allowing horse use in the stream at all.
- ❖ Equestrians have noted that they are not able to access the Kettle Creek State Park office because of tight turning radii and the small parking lot. Visitors pulling large campers or boats may also have difficulty. Visitor centers need to be designed to accommodate all types of expected visitors.
- ❖ Consider seasonal restrictions to protect trails during wet periods. The DCNR policy for horse use should specify if trails will be open year-round or seasonally.

- ❖ Fermata recommends partnering with the Pennsylvania Equine Council (PEC) to provide training on sustainable horse trails to DCNR personnel. Since 2002, the PEC has hosted several trail stewardship workshops for volunteers and agency personnel with the objective of advancing the understanding and awareness of good trail management and responsible trail riding behaviors. Fermata staff has attended this training and finds their techniques and methods to be the highest quality. The PEC is also willing to work with agency personnel to evaluate and improve horse facilities and we recommend forming a close partnership with the PEC to improve horse trail riding opportunities on DCNR land (<http://pennsylvaniaequinecouncil.com/>).

State Forest Roads

Priority: High

The road systems within state forests are well designed and maintained, and represent most obvious recreation investment on state forest lands. Forest roads are the primary vectors to recreation destinations within the state forests. This road system provides access to a vast undeveloped forests and their wealth of dispersed recreational experiences. State forest roads, however, were initially developed for purposes other than recreation. While these roads may have once offered timber companies and foresters access to the deepest recesses of the Pennsylvania Wilds, they must now meet the needs of the recreationists who travel them to recreate in this undeveloped landscape. Just as state parks offer a variety of recreation experiences in a developed setting, the state forests offers the same range but in a more remote and dispersed setting. These dispersed recreationists do not demand extensive facilities, but they do need safe access to their preferred destinations.

Fermata believes that the state forest road system is not prepared for significant expansion of recreational use. In fact, there are specific roads that do not offer safe passage for recreationists already visiting the region. For example, horse trails within state forests have trailheads and camping areas situated along narrow forest roads that provide few turnouts for passing vehicles. Equestrians trail riders, who are typically pulling large horse trailers, have noted that access can be very difficult and unsafe if they encounter oncoming traffic. The message is simple - access roads to recreation facilities need to be designed to accommodate the intended user.

As recreational use of the state forests expands and diversifies DCNR should prepare for a concurrent growth in the use of state forest roads. Fermata recommends that DCNR and the Bureau of Forestry develop a comprehensive road strategy for the forests in the Pennsylvania Wilds. We believe that public use of forest roads will always be discontinuous, with roads that closely parallel streams, those that border natural and wild areas, and those in areas where there is heavy hunting pressure receiving a disproportionate amount of traffic. Fermata recommends that in cases of high use (current or anticipated) that roads need to be adapted to accommodate this recreational use. For example, more frequent pull-offs may be needed to provide safe passing areas. The construction of hardened parking spurs would offer a safe place for recreationists to park off the road surface. Such spurs also lessen resource damage by providing an alternative to pulling off the road. Providing small, hardened parking areas at gates and other popular sites communicates that vehicles are only welcome on hardened surfaces. Allowing vehicles to drive off the road in some circumstances and not in others is confusing to recreationists and makes it harder to enforce parking regulations.

Decommissioning

Priority: Medium

Decommission trails that have poor design, low use, and traverse common landscapes. Strive for a high quality trail system through interesting landscapes. By critically evaluating each unit's trail system, you can focus your limited maintenance efforts where it matters the most. On some decommissioned trails, it may be necessary to install structures to stabilize erosion.

Interconnected Statewide Trail System

Priority: Medium

Hikers have long seen the benefits of connecting trails to one another to provide additional opportunities for hiking. This trail system has traditionally been a network of more difficult, long-distance trails, but there is no reason why they cannot provide the backbone of a system that interconnects separate systems and takes connectors into communities. Many health professionals are also seeing the benefit of trail connections that reach into communities. Persons living close to recreation facilities are more apt to engage in outdoor recreation because it is convenient. The Clarion Little Toby Rail-Trail is used for fitness by local residents but it also attracts trail users from farther away who come to enjoy the scenic beauty. Imagine that this trail was connected to the state's backpacking network and you could see how this trail could also serve as a means for backpackers to stock up on supplies and access services. By no means is it the typical backpacking experience, but access to services via trails is much more desirable than hiking on the shoulder of a state highway to reach the closest town. By designing the community trail connections to be easy, it serves a broader constituency of needs. Evaluate the trail systems across the Wilds, where are easier-level trails appropriate to meet broader needs? At a minimum trails in state parks and communities should be easier, with difficulty increasing as you move farther away from these nodes.

Off-road Driving

Priority: Medium

Managing for off-road vehicles (OHV) is challenging. The first line of defense is information. Fermata reviewed the information available in print and on the web regarding off-highway vehicles. We found the information to be inconsistent, incomplete, and at times confusing. Providing clear and detailed information will help ensure trail users comply with regulations.

Develop a consistent set of maps for every ATV trail on state forest lands. Each map should be displayed at the same scale and show topo lines, all intersecting trails and roads, trailheads, difficulty level of each segment, GPS coordinates for trailheads, and services (telephones, offices, etc). Offer a map on waterproof paper for sale in addition to a free map of similar design. Specify the trail open season on the map. Also, the maps and website were not clear about summer and winter trails. It was unclear if "winter trails" means ATV or snowmobile or both. Specify what kinds of OHVs are allowed in each season.

Provide text on the map that provides the following information: trailhead locations, size and amenities, describe trail (woods trails, old roads, strip mines, etc), open season, level of difficulty, provide detailed information about getting emergency help (911 availability, cell service availability, location of closest pay phone, location of closest hospital, etc), regulations, safety tips, and permit or registration requirements.

It is also important to provide detailed information at the trailheads. A bulletin board should be provided at every trailhead and should display the following information: trail information (trail map, trail length, trail difficulty), environmental messages (Tread Lightly), user etiquette, program or event schedules, regulations, and safety and emergency information.

Viewing Activities

Viewing and Photographing Other Wildlife

Sinnemahoning State Park

Priority: High

Sinnemahoning is recommended as a model for viewing and photographing wildlife. Sinnemahoning is a strong location for wildlife watching of all kinds. Improvements to enhance the viewing experience are already underway as one of the primary sites along the Elk Scenic Drive. After assessing wildlife viewing opportunities all across the Pennsylvania Wilds, this site still ranks as one of the best places to view and photograph wildlife.

Most of the park is undeveloped, which really provides great opportunities for nature study and wildlife watching. This parks strength lies in wildlife watching opportunities. Bald Eagle watching is a popular activity at the boat launch area and volunteers are often available with spotting scopes for visitors to look at the nest. A new viewing area has been established for elk viewing. There is more potential to enhance wildlife viewing opportunities in this area of the park. A small pond located near the viewing platform would be a good location for a concealed blind. Currently wildlife watchers must bushwhack through the thick vegetation to get a glimpse of the pond. An improved trail that allows watchers to quietly and covertly approach the pond would provide good viewing of herons, Wood Ducks, frogs and dragonflies. There is also an opportunity to introduce native wildflowers in the field areas near the viewing platform. An emphasis on flowers that draw butterflies, hummingbirds, and other birds would diversify the wildlife watching opportunities further.

Recommendations

- ❖ Improve the small pond near the elk viewing area with an improved path and concealed blind to observe aquatic life. Provide interpretive signs to help visitors identify common species and include conservation messages.
- ❖ Introduce native wildflowers in the field areas near the viewing area to enhance insect and bird viewing.
- ❖ Develop wildlife checklists and detailed information on wildlife viewing in the park.

Viewing and Photographing Natural Scenery

Hyner View State Park

Priority: High

Hyner View is recommended as a model for viewing and photographing natural scenery. The forested landscape in the Wilds offers few extended views. Hyner View State Park boasts one of the longest and widest views. The CCC constructed overlook is a gem,

and Fermata recommends that future improvements to the site incorporate a CCC style. The main entrance road is narrow and winding which restricts large vehicle traffic. An entrance road suitable to buses and RVs may be possible from PA 44. A GIS analysis indicates that a route across the plateau may be feasible via Hyner Mountain Road, Ritchie Road and Old Hyner Mountain Road. The restrooms are old vault toilets. Although they are well maintained, modern vault restrooms would be a nice complement to the beautiful site.

Fermata staff attended a hang gliding event sponsored by the Hyner Hang Gliding Club on July 2, 2005. There were dozens of hang glider and paraglider pilots set up for launching when we arrived at 1:30. During our two hours at the site, several hundred spectators rotated through the park. The designated parking area at the park is small, and most vehicles parked along the entrance and exit roads. Overflow parking was safe and motorists traveled through the site with care and caution. Fermata questions as to whether parking would be as safe and easy if soils had been wetter. Surprisingly enough, no one was parked in inappropriate places. No one was directing traffic, nor were there any signs directing people where or where not to park.

There were no additional restrooms set up for the event. The restroom was not adequately sized to handle this kind of volume and supplementing with portable restrooms is advised if events are expected to draw a lot of participation or spectators.

Recommendations

- ❖ Fermata understands that renovations to the parking, restrooms and access road at Hyner View are underway. We support these improvements and feel they are necessary to elevate this site to model status.
- ❖ Supplement with portable restrooms during high attendance special events or club activities.
- ❖ The overlook would be enhanced by a few low profile signs that identify landscape features. This would also be a good place to interpret the geology of the Allegheny Plateau and the thermals that enhance hang gliding and viewing raptors.

Viewing and Photographing Wildflowers and Trees

Cook Forest State Park

Priority: High

Cook Forest is recommended as a model site for viewing and photographing wildflowers and trees. Where Bald Eagle and Sinnemahoning State Parks offer unparalleled wildlife viewing opportunities, Cook Forest State Park offers great opportunities for viewing distinctive ecosystems. Cook Forest has the second largest old growth stand in Pennsylvania. The Clarion National Wild and Scenic River winds for miles through a landscape of forested hillsides with only a few scattered small communities. Once polluted with the effluent of industry, the river has become one of the more popular floating rivers in the state and is starting to be known for its good fishing. The park offers a large trail system that traverses a variety of interesting landscapes.

Cook Forest is the most visited state park in the Wilds. The old growth forests are some of the most rare and precious resources in the state. These facts combine to create an urgent need to ensure the resources are protected from recreation use and an opportunity to reach a large audience with conservation messages. The only way to experience the old growth forests is via the trail system. The Longfellow Trail passes through the Forest Cathedral, a National Natural Landmark, and has the distinction of being the

most used trail in the park. The trail is in desperate need of rehabilitation to bring it up to modern trail standards, to provide a world class experience, and to protect the old growth forest. A trail of this prominence should be designed to accommodate a wide range of people at an easy difficulty level. The Forest Cathedral area has an extensive and confusing network of trails.

Recommendations

- ❖ Fermata recommends making the Longfellow Trail into a loop that starts and ends at the Log Cabin Inn.
- ❖ Redesign of the trail should strive to keep grades below 5% to maximize accessibility and reduce maintenance needs.
- ❖ The trail tread should be level and firm to provide quality experiences year-round.
- ❖ To protect this priceless resource, the design should include strategies for keeping hikers on the trail.
- ❖ Develop and implement a sign plan that is oriented toward providing clear and consistent signing for novice trail users.

Viewing and Photographing Birds

Bald Eagle State Park

Priority: High

Bald Eagle State Park is much different in character than most of the Pennsylvania Wilds and Fermata recommends a series of improvements to capitalize on its value as a model bird watching location. Located between the Allegheny plateau and the ridge and valley province, the dramatic forested mountains provide a scenic frame to a park dominated by a large lake and extensive shrub habitat. The habitats at the park are varied and offer excellent wildlife viewing opportunities. The bird, reptile and amphibian watching at the park are remarkable.

The park has a great diversity of habitats. The field and shrub habitat is most noteworthy and efforts should be made to keep these areas from converting to woodland. Several miles of mowed pathways wind through the fields offering good bird, butterfly, and wildflower viewing. Most of the fields are filled with common Pennsylvania wildflowers (goldenrod, Queen Ann's lace, crown vetch) but a few uncommon wildflowers were present (wild bergamot, Turk's-cap lily, blazing star). This would be a great place to plant and encourage a wider diversity of field wildflowers that would in turn attract a greater diversity of birds, butterflies and insects. Efforts at controlling and eliminating invasive plants should continue (purple loosestrife, autumn olive). There are few places in Pennsylvania to see great wildflowers. A demonstration project at the park would encourage their conservation and appreciation. Jennings Environmental Learning Center can provide some guidance on restoring wildflower habitat and techniques to maintain habitat. Fermata believes there is an outstanding opportunity here to involve citizens in this effort and believes this kind of interactive, hands-on programming is an effective way to engage visitors.

The park yielded more species and diversity of species than most other sites Fermata assessed. The bird life was especially abundant due to the extensive shrub and wetlands habitats. More can be done to develop the park for birdwatching. The water habitats also provide good wildlife viewing opportunities. The boardwalk at Hunters Run Cove provides an opportunity to view

painted and snapping turtles. The small pond along the Butterfly Trail was full of frog life that was fascinating to watch. Reptile and amphibian watching opportunities are few in the Wilds. The dragonfly and damselfly activity at these places was also noteworthy.

Restrooms in the park support all recreational activities, including viewing that can occur throughout the park. The facilities in the campgrounds, beach and marina are modern and accessible to persons with disabilities. The vault restrooms at Hunter Run Cove and at some of the picnic areas are in poor condition and unpleasant to use. A number of restroom buildings are closed to help stretch lean budgets. Does the current or projected level of use support this amount of infrastructure?

Recommendations

- ❖ Enhance waterfowl habitat with nest boxes and aquatic plants.
- ❖ A bird blind along the lake in the Greens Run Recreation Area would provide a sheltered spot for birders to watch waterfowl and shorebirds.
- ❖ Develop a bird checklist for the park and provide a place where birders can note recently sighted species.
- ❖ Provide programming that highlights seasonal changes such as waterfowl, songbird and hawk migration, nesting birds, and winter residents.
- ❖ Offer free rentals of inexpensive binoculars to support novice bird watching in the park.
- ❖ Continue efforts to control invasive species and initiate a demonstration project to establish a greater diversity of native vegetation.
- ❖ Establish a viewing blind at the pond on the Butterfly Trail would enable visitors to approach the pond without disturbing the aquatic life.
- ❖ Provide interpretive panels to enhance viewing activities. Panels at the Butterfly Trail pond and the Hunters Run Cove can educate visitors on the value of wetlands and to help them identify common species. Panels along the lake shore can focus on waterfowl and Bald Eagle viewing, and conservation issues.
- ❖ Evaluate restroom facilities throughout the day use portion of the park for rehabilitation, replacement or decommissioning. Modern vault toilets, like the ones at the Summer-Winter Launch are a cost effective solution.
- ❖ Develop a sign plan for the park. Additional signing along roads and trails would help visitors find they way. At each site (example: Hunter Run East Launch), a site entrance sign should identify the site name and use recreation symbols to indicate the major services at the site. Signs should identify trails whenever they cross roads or other trails. Because some visitors use the trails to travel to other facilities in the park, signs at trail intersections should direct people to facilities (example: campground, marina, beach). Signing for facilities on the east side of the lake should state the park's name and the site name (Bald Eagle State Park – Primitive Campground), since visitors arriving from this direction do not pass a Bald Eagle State

Park entrance sign. A sign naming the Skyline Drive and the facilities along this route is needed where the Skyline Drive leaves the concrete road along the lakeshore.

Viewing and Photographing the Sky

Cherry Springs State Park

Priority: High

Cherry Springs State Park offers a truly unique experience and offers an obvious choice for a model site to view dark skies. There are no other sites in Pennsylvania that match the brilliance of their night sky. This affords the opportunity to develop exceptional opportunities for professional and amateur astronomers, as well as distinctive experiences for general recreationists.

Execution of the *Cherry Springs Early Implementation plan* is well underway and already bearing fruit with more visitation and programming. Now with a perspective that covers all aspects of the Pennsylvania Wilds, Fermata can confidently say that Cherry Springs is still a significant resource that warrants DCNR's continued investment. Fermata recommends that subsurface rights be acquired to protect this unique resource. We understand the mineral rights have recently changed hands which may signal an interest in extracting the minerals. Acquisition of the airport property would provide more space for events and provide a buffer from incompatible uses. To support staffing and other programs in the park, require payment for Special Activities Agreement events.

Recommendations

- ❖ Fermata recommends expanding night sky programming to other sites in the Wilds. We have noted that night programming has gotten more prevalent in the state parks. Move beyond offering educational experiences. Programming can introduce visitors to new recreation activities and provide opportunities for learning new skills or for advancing their skills.
- ❖ To provide or enhance night sky programming and events, develop strategic partnerships with regional astronomical associations and institutions.
- ❖ Acquire subsurface rights to protect this unique opportunity.

General Viewing Recommendations

Priority: High

Fermata recommends the development of real time wildlife imagery and videography capacity. Provide links on the DCNR website to the elk cam on the Visit PA website (<http://www.visitpa.com/visitpa/webcams.pa?wc=elk>). Develop web cams for some of the premier resources in the Wilds, like the Pine Creek Gorge or the viewing blind at Sinnemahoning State Park. Provide a way for wildlife watchers to record their recent sightings at the park office and make this available for visitors to browse. Develop a page on the DCNR website to post current sightings.

Fermata recommends the development of a canopy viewing facility within the region. Firetowers provide a great way to get a bird's eye view of the landscape. The firetower tours at Cook Forest State Park are very popular with the public. Develop a fee tour of other firetowers in the Wilds for small groups. Tours could take place during the spring warbler migration and offer a unique way to view birds that are not all that easy to view from ground level. Another tour could introduce small groups to the fire prevention program in

Pennsylvania. The tour could include a trip up the tower to learn how spotters monitor for fires then travel to a fire scarred landscape to learn about the dynamics of fire and how the ecosystem recovers. Including specialists in the tour will enhance the experience by relating personal experience and knowledge, such as a firefighter who worked on the fire or an ecologist to talk about the biological effects of fire.

Improve wildlife habitat in viewing areas, along trails and byways, and in state parks. Work with Pennsylvania Game Commission and sportsmen's groups to improve habitats, control invasive species, create fish structure, and plant mast and fruit trees.

Encourage the expansion of the elk herd in a northeasterly direction. The elk have the power to attract visitors like few others do. More frequent elk sightings in this area could create an anchor attraction that would bring more use to an area that sorely needs economic stimulus.

Wild and Natural Areas

Priority: High

The Wild and Natural Areas are the premier places to view and study nature in the Pennsylvania Wilds. They constitute the most unique and rare landscapes in Pennsylvania. The Pennsylvania Wilds contain about 65% of the state and federal natural and wild areas in Pennsylvania. These areas appeal primarily to naturalists, photographers, avid hikers and recreationists looking for a remote undeveloped experience. The undeveloped and rugged nature of these sites is likely not to appeal to a broad constituency. This will serve to protect the sites from overuse. The natural areas within state parks are improved for public use. The facilities in these natural areas should restrict use to improved facilities (primarily trails) to protect the unique habitats.

A minimum level of development is warranted to provide safe and ecologically sustainable experience. Almost half the natural and wild areas within the Pennsylvania Wilds are not prominently identified on the ground (Bark Cabin, Black Ash Swamp, Dutlinger, Hammersley, Johnson Run, Lebo Red Pine, Miller Run, Tamarack Swamp, and Reynolds Spring), and just as many do not have parking available (Algerine Swamp, Bark Cabin, Cranberry Swamp, Dutlinger, Hammersley, Johnson Run, Lebo Red Pine, Miller Run, and Tamarack Swamp). Fermata recommends developing an improved access area for each wild and natural area. The wild areas may warrant more than one access area due to their large size. The access area should provide a modest amount of hardened parking (based on existing or potential use), a site identification sign and a bulletin board describing the place, the facilities, the sensitivities and the regulations. Identify on state forest maps the location of the access sites.

Water Activities

There are few natural resources that have the power of attraction like water does. Where there is water in the Wilds, you will find a concentration of use. Unfortunately, riparian and wetland areas are also some of the most sensitive resources in Pennsylvania. Highly dispersed recreation use has little effect on riparian areas and wetlands. Concentrated use is another matter. Recreation facilities planned within these areas needs to be designed to protect the resource. Where there is easy access to streams and wetlands, managers need to monitor the recreation use to protect this resource. As a proactive measure, providing improved facilities in places suited to recreation use is advised in the general forest environment. A stream with a road running parallel is susceptible to

recreation induced impacts. Providing parking at regular intervals and blocking possible pathways where vehicles can leave the road are good preventive measures to protect water resources.

Concentrating use where it can be managed and monitored is an effective tool to protect natural resources. Allowing for unimproved dispersed recreation works when visits are infrequent, group sizes are small and the resource is durable and abundant. A forested environment on the plateau can take a lot more use than a wetland. How many recreation visits does it take to produce a noticeable change the resource condition? Any concentration of use calls for providing improved facilities to sustain the recreation use. The kind of facility will be based on the type and intensity of use. Recreation use in water environments requires active management to protect the resource.

The Limits of Acceptable Change (LAC) process was designed to establish thresholds of conditions in specific environments. This is an adaptation of carrying capacity that focuses more on resource condition as indicators of the need for management action. For instance, an LAC for campsites may dictate that once the number of dispersed campsites increases beyond a certain number in one concentrated place that a restroom is needed to manage human waste. Or an LAC for streambanks may specify how many feet of eroded and denuded bank is acceptable before more developed facilities are warranted. The Aldo Leopold Wilderness Research Institute provides lots of reference materials (<http://leopold.wilderness.net/>) that have applications beyond wilderness settings. Using LAC to establish thresholds in riparian areas can help managers monitor conditions and know when further action is warranted.

Plan on scattering water-oriented recreation across the Pennsylvania Wilds. Concentrating improved recreation access on just a few large streams will inevitably lead to lower water and riparian quality in those watersheds. Where there is easy access to a large stream, improved access should be provided as a proactive measure. By providing opportunities everywhere across the Wilds, you limit the impacts to those that can be easily managed. Those places far from roads or within wild areas will still maintain their primitive qualities and can provide the more challenging experiences some recreationists will seek. Addressing water quality issues, such as acid mine drainage, will provide more recreational opportunities that will further scatter this impact across the landscape. This approach also helps spread the economic benefit.

Visit a Waterside (besides beach)

Black Moshannon State Park

Priority: High

Black Moshannon is a naturalist's state park and is recommended as a model for visiting a waterside in the Pennsylvania Wilds. Fascinating and extensive wetlands, and a designation as an Audubon important bird area provide ample and quality opportunities for nature study and environmental education. There are no other bogs in the Wilds that are developed for recreation use. Exploration of the bog can be a facilitated experience such as a naturalist program or the Bog Trail, or an independent experience on the Moss-Hanne Trail or in a canoe.

The quality of this habitat does attract specialists. How can services or programming meet their needs as well as general recreationists who have a rudimentary knowledge of wetlands? Boat rentals are an important service that serves both groups. Naturalist programs will not appeal to specialists, but can be a wonderful tool to expose visitors to the importance and wonder of this

habitat. There is no better place in the Wilds to reach visitors with conservation messages about wetlands and this should be the focus of programming at the park.

Recommendations

- ❖ Develop exhibits for the park office that focus on the uniqueness of the park's wetlands and on the importance of wetlands in the ecosystem.
- ❖ Consider multiple day programs that utilize the park's cabins for lodging.
- ❖ Provide interpretive boat tours of the wetlands geared toward typical visitors. Tours via canoe can incorporate paddling skills as part of the program.
- ❖ Develop a wetland habitat guide for visitors wanting to explore the area independently.
- ❖ Provide expert lead tours for a fee by foot and boat on bog/wetland related themes.
- ❖ Given the quality of this natural environment and the opportunity for sharing important conservation messages about the value of wetlands, Fermata recommends increasing the term of employment of the Environmental Education Specialist. The existing five month term only covers the high visitation months. The proximity to State College makes Black Moshannon a good candidate for more environmental education programming. The Watershed Education program would be very applicable here because of the quality wetlands. Additional winter programming could also draw from the nearby population centers.

Coldwater Fishing

There is a great abundance of cold water fishing opportunities across the Pennsylvania Wilds. There are over 690 miles of Class A Wild Trout streams in the Pennsylvania Wilds, which represents 52% of the Class A streams in Pennsylvania (the Wilds are 22% of the land base in Pennsylvania). Potter, Centre and Clinton Counties have the most miles of Class A streams. A Class A stream is a designation by the Pennsylvania Fish and Boat Commission that means that the particular section of stream has a healthy population of reproducing native brook trout and/or wild brown trout. Class A streams are not stocked with trout.

The design and maintenance of roads is the single most important activity to protect this resource. According to the Center for Dirt and Gravel Road Studies at Penn State University, sediment from roads, farms, construction sites, logging, and a host of other sources is the largest single contributor of pollution of the state's waters. A road design element often overlooked on state forest land is providing hardened parking areas. Further, roads are often narrow which makes it difficult to find safe parking. Where there is road access close to streams, it is important to provide improved parking to keep vehicles off soils. Riparian areas have sensitive soils and are easily damaged. Some visitors are not shy about driving as far as they can off roads to get closer to their destination. Accommodate their need for access by providing improved parking. Block access off parking areas and roads with large boulders.

Recommendations

- ❖ Develop hardened parking at popular fishing access areas.

- ❖ Protect riparian areas by blocking vehicle use off roads with natural barriers such as boulders.
- ❖ Partner with the Pennsylvania Fish and Boat Commission to identify additional special waters designations. The Catch and Release, Delayed Harvest Fly-fishing only, Heritage Trout Angling, and Trophy Trout programs attract anglers from outside the immediate area and will bring new money to fuel local economies.

Kettle Creek

Priority: High

Over 85% of the Kettle Creek watershed is contained within state forest land. There are over 65 miles of Class A Wild Trout streams within the watershed. A number of streams in the watershed have special classifications such as Heritage Trout Angling. Kettle Creek watershed also boasts as having the largest portion of any watershed in the state designation of “exceptional value” (PA DEP water quality designation).

The Kettle Creek Watershed Association (KCWA) was established in 1997 by citizens concerned about the protection and improvements of the Kettle Creek watershed. The KCWA has since developed many partnerships and accomplished a number of stream habitat improvement projects, worked on acid mine drainage remediation efforts and involved many people through their various educational programs. The KCWA's watershed program focuses on four main goals: 1) Develop a watershed management and conservation plan; 2) Reclaim the lower watershed through treatment of acid mine drainage; 3) Improve aquatic habitat throughout the watershed; and 4) Implement a community environmental education program. The KCWA joined with Trout Unlimited through its Home Rivers Initiative. This partnership was created in 1998 when Trout Unlimited accepted the Kettle Creek watershed as the third Home Rivers Project.

The KCWA has completed several watershed conservation plans that identify habitat protection and enhancement needs throughout the watershed. Acid mine drainage remediation is ongoing in the lower Kettle Creek watershed. The organization has also been active in stream channel stabilization and stabilizing stream banks with native plantings. In 2002, the KCWA published the *Kettle Creek Watershed Conservation Guide: a Landowner's Handbook*. The guide provides guidance and advice on good conservation practices for watershed landowners.

The KCWA has focused little on the need for public access and properly designed facilities in riparian areas. Their focus has been on big water quality issues. The good work they are doing has put Kettle Creek in the state and national limelight. The Trout Unlimited magazine has written about Kettle Creek in more than one issue of this national publication. This publicity will draw more people to the watershed, and it is not apparent that anyone has a plan on how to manage this. DCNR and the PFBC need to devote more effort to providing facilities in the watershed that provide access and protect the water quality. Providing hardened parking areas in areas with heavy fishing pressure will protect user safety and reduce environmental impacts. At these sites, graded and graveled pathways to the water's edge are needed to protect streambanks from erosion. Interpretation at stream access sites will educate users on good conservation practices. There are sites more fragile and in need of active recreation management than riparian areas.

Existing sites with improved access are few along the main branch of Kettle Creek. All improved access is downstream of Oleona:

- ❖ Ole Bull State Park: The streambank has been protected from erosion with gabion baskets and hardened pathways to the stream's edge. A fish ladder is part of the CCC dam.
- ❖ PFBC access site just south of Oleona: shallow roadside pull-off along PA 144. Room for about 10 vehicles. The pathway leading to the stream is steep and gullied at the streambank. Need to improve path and provide stable steps down the streambank. There is a sign that identifies the site, but no site-ahead signs on PA 144.
- ❖ PFBC access north of Cross Fork where PA 144 crosses over Kettle Creek: a nicely developed parking area for about 15 vehicles. Did not see any streambank erosion from recreational use. There is a sign that identifies the site, but no site-ahead signs on PA 144.
- ❖ Kettle Creek State Park: There is an opportunity for improved access (expanded parking and stream access pathway) near the Leidy Bridge. A boat ramp and ample parking for non-motorized boating are available in the beach area. There is a need to provide hardened lakeside access and re-establish bank vegetation. The park property below the dam provides access to the stream, but parking is limited because most of the site is a campground.

Recommendations

- ❖ Develop an access plan for Kettle Creek that provides for improved facilities in places of known use.
- ❖ There is an opportunity for additional stream access along PA 144 north of Cross Fork (N 41.49629, W 77.77666). A primitive road on the Susquehannock SF ends at a small parking area. Several earthen mounds block vehicles from leaving the road and beyond these mounds is evidence of off-road vehicle use that leads to campsites. Blocking this use was a wise decision in protecting the riparian area from damage. The floodplain is wide here and the wooded riparian habitat is very nice. This would be a great site to provide improved pathway through the riparian zone and to the stream's edge. The access road would need to be improved and widened, along with expanding the parking area (5-10 vehicles capacity). The KCWA could erect some interpretive signing here that would promote good conservation practices and explain the value of healthy streams. Efforts to stabilize and revegetate the old vehicle paths should occur as part of the site's development.

Flatwater Paddling

Attributes of a model facility

- ❖ Provide improved access areas with a hardened launch and parking, information and restrooms.
- ❖ Designated camping sites in places that can sustain recreation use.
- ❖ Identify access areas with signs along the stream for paddlers.
- ❖ Mount signs on posts rather than trees.

- ❖ Design launches to prevent vehicle use in the water or on the streambank.
- ❖ Develop a detailed water trail map (the West Branch Susquehanna guide is a good model).
- ❖ Provide a bulletin board that displays the following information: name of access area, river map (access areas, roads, tributaries, campsites, hazards, services, etc.), regulations, emergency information, a list of access areas including amenities and river milepoint, safety and Leave no Trace information, and required permits.

Clarion River

Priority: High

Within just a few generations, the Clarion River has transformed itself from a cesspool unfit for recreation to one of the most heavily visited corridors in the Pennsylvania Wilds. In 1996 the Clarion River was designated a National Wild and Scenic River. The designation starts just downstream of Ridgway and ends 52 miles downstream at the backwaters of the Piney Reservoir (upstream of Clarion). Seventeen miles are designated as “scenic”, and 35 miles as “recreational“. This river meanders through a largely undeveloped narrow valley of hardwood forests. Wildlife, intermittent riffles, and large rock outcrops provide constantly changing scenery. The Clarion is popular for family canoeing, as well as for trophy brown trout and smallmouth bass fishing. Outstanding features include a nationally recognized area of old growth white pine and hemlock.

Developed facilities along the river are limited outside of state parks. Many of the canoe launches are unimproved with limited parking and no support facilities like restrooms. In this condition, many of the launches are expediting sedimentation into the Clarion River. The developed launches at Cook Forest and Barnett Township have erosion problems from poorly designed roads and unhardened launches. Interpretation is limited to naturalist programs at Cook Forest and Clear Creek State Parks and a few interpretive panels. Management of river use is needed in the Allegheny National Forest to reduce streambank impacts from camping and fishing. Few of the dispersed campsites provide hardened parking and some user-created campsites are located in places not suited to camping. Property lines are not well marked, and this leads private property trespass and visitor confusion because rules and regulations vary between agencies.

The Western Pennsylvania Conservancy has initiated a greenway plan for the scenic and recreational portions of the river that will serve as the local voice as to how wild and scenic river objectives will be achieved. The Clarion River Greenway Plan will be an effort to unify information and management efforts of landholding entities within the 52 mile Wild and Scenic River Greenway. The plan will incorporate local opinion and encourage long term public involvement in the development of the greenway as a place for natural, historic and scenic resource protection, recreational adventures and economic prosperity. The draft Greenway Plan will be released in early in 2006. The draft makes recommendations to help guide planning and use of the river corridor. The following Greenway Plan recommendations closely relate to Fermata recommendations:

- ❖ A Clarion River Greenway Land Managers Committee should be formed to coordinate activities among the various land managers along the greenway.
- ❖ Current, successful efforts to educate visitors to respect private property and pack home trash should be increased, and additional efforts should be explored.

- ❖ More education signage should be developed at public land boundaries, explaining what agency manages the land, and outlining their goals; other media, such as information brochures, should be created.
- ❖ Stakeholders along the Clarion, the Lumber Heritage Region, and the Pennsylvania Wilds effort should develop a cooperative relationship to promote the region's rich history.
- ❖ The Clarion Greenway should be carefully promoted to stimulate economic growth in the region, while protecting the natural resources and community values of the region.

Unlike many places in the Wilds, the Clarion River has been discovered and immediate actions are needed to protect its resources from further impacts from unmanaged recreation use. The Allegheny National Forest has recently initiated a project to regulate parking and camping, and to address human waste and littering along the Clarion River between Irwin Run and Millstone. Implementation of this project is expected to start in the spring of 2006. Partnerships with DCNR and other river interests may help by providing additional resources to comprehensively manage river use.

The Clarion's story of recovery was chosen as one of the phase one itineraries in the Lumber Heritage Region Interpretive Plan. There are plentiful historic, cultural and natural sites in the river corridor that are ripe for interpretation. Most visitors to the valley get no conservation messages. They use the area as they see fit with little intervention or conscience about their actions. Interpretation can ensure people understand the significance of this place and use it wisely.

Clear Creek State Park offers the only riverside camping along the Clarion River. Riverfront cabins are offered at Clear Creek and Cook Forest State Parks, as well as private cabins in the Cook Forest area. Dispersed camping sites are in very high demand along the river. When management develops a comprehensive plan to address dispersed camping, it will result in fewer campsites. Much of the suitable land for camping is in private ownership and many user-created campsites will be eliminated because they are not suitable. A joint plan by the land management agencies should be developed to address this situation.

The Clear Creek State Park campground offers a rustic experience. The campsites do not have hardened parking spurs and campers are permitted to set their RV and drive anywhere on the site. This has resulted in soil compaction, exposed tree roots and muddy campsites. Hardening the campsite spurs would protect trees from root damage and would provide safe parking when soils are saturated. The vault restrooms in the campground are in poor condition and unpleasant to use. Since showers are available elsewhere in the park, replacing the restrooms with modern vault toilets would maintain this rustic camping experience at a lower capital and maintenance cost.

Programming and services enhance the visitor experience. There are canoe livery services in the Ridgway and Cook Forest areas. Bicycle rentals are available in Ridgway. Cross-country ski rentals are available in Ridgway and Cook Forest. Programming is limited to Clear Creek and Cook Forest State Parks. River Sojourns are a great way to increase awareness of river issues. The Clarion River has been a frequent host to River Sojourns. The Pennsylvania Organization of Watersheds and Rivers hosts several River Sojourns every year. The sojourns are educational, multi-day canoeing and float trips held throughout Pennsylvania since the 1980's. A wide variety of organizations, agencies and corporations are involved in each sojourn.

Recommendations

- ❖ Provide additional river access sites and improve existing access sites with hardened parking and improved launches along the National Wild and Scenic River section.
- ❖ Develop a management and law enforcement partnership between the ANF, PGC, PFBC, and DCNR. Regular presence is needed along the river to educate visitors about wise use and to discourage inappropriate behaviors.
- ❖ Expand interpretive efforts along the river to educate and inform.
- ❖ The land management agencies along the river should develop a joint plan to address the demand for campsites and the displacement that will occur when dispersed campsites are brought under control.
- ❖ Fermata recommends that the campground at Clear Creek State Park be marketed to river users to reduce impacts at unimproved sites.
- ❖ Improve the campground at Clear Creek State Park with hardened parking spurs, and replace pit restrooms with modern vault restrooms.
- ❖ Fermata recommends expanding the Watershed Education programming to engage adults as well as school children in a more interactive way, such as water quality monitoring and low impact camping techniques. Expand programs to public lands beyond state park boundaries. Involve DCNR, National Forest and Pennsylvania Fish and Boat Commission experts in helping conduct the programs. Initiate volunteer projects to restore impaired sites, such as planting vegetation on streambanks. Such hands-on programs will give participants a sense of accomplishment and will educate them on important environmental issues.

Whitewater Paddling

Pine Creek

Priority: High

Pine Creek is the only place in the Wilds that provides a rafting experience and is recommended as a model site. Kayaking is more widely available in the Wilds, although this area is one of the more popular destinations. Pine Creek is generally rated as a Class I - II+ stream punctuated by some Class III rapids.

The Pine Creek Early Action Plan recommended a broad array of proposals that covered all aspects of recreation use in the Pine Creek Valley. In regards to kayaking and rafting use, the plan recommended improving signing and information, hardening boat launches, and limiting camping use to designated sites.

Recommendations

- ❖ Improving the launches is an important step in protecting Pine Creek from recreation induced impacts. The launches are constructed on unimproved bare ground and many are eroded and gullied. Some are not useable because of streambank

erosion. A hardened pathway down the streambank and into the stream channel will reduce sedimentation and will provide a slip resistant surface for launching and landing.

- ❖ The *Pine Creek Early Action Plan* recommended allowing camping only in designated campgrounds. This will protect areas not suited to camping and will concentrate use where impacts can be managed. Allowing visitors to disperse across the landscape is appropriate when demand is low, when resources are abundant, and where the land is suited. On Pine Creek recreation use is concentrated and places to camp along the creek are restricted by topography or land ownership. The existing state forest campgrounds along Pine Creek offer camping to hikers, bikers, and paddlers and are well distributed. The campgrounds should continue not to be accessible by vehicle. To offset the loss of campsites, we recommend expanding the capacity of each existing campground by 20-30%. Permits should only be issued for the number of campsites available.
- ❖ In addition to recommendations in the Pine Creek Early Action Plan, Fermata recommends developing a water trail guide for Pine Creek. The West Branch Susquehanna River guide is a good model because of the level of detail and waterproof maps.

Swimming in Natural Waters

Attributes of a Model Facility

- ❖ Lake setting because it provides warmer waters.
- ❖ Bathhouse with accessible restrooms, showers and private changing stalls.
- ❖ Concession stand for food services.
- ❖ Regularly groomed beach to remove debris and smooth surface.
- ❖ Picnic tables in vicinity.
- ❖ Shade trees in vicinity.

Parker Dam State Park

Priority: Medium

A new rustic-styled bathhouse graces the lakeshore at the swimming beach. A concession stand offers food and supplies. Fermata has no recommendations for this site.

Warmwater Fishing

Sayers Lake, Bald Eagle State Park

Priority: Medium

Sayers Lake offers crappie, yellow perch, tiger muskellunge, channel catfish, and large and smallmouth bass. The Pennsylvania Fish and Boat Commission website reports that record size rock bass and tiger muskellunge have been caught in the lake within the last five years. The lake is a panfish enhancement waterway for sunfish and crappie.

Fermata has no recommendations to directly enhance fishing at Sayers Lake, but a number of signing and restroom recommendations that will indirectly enhance fishing are detailed in the Viewing Activities section above.

Winter Activities

Snowmobiling

Priority: High

Attributes of a Model Facility

- ❖ Trails are marked with reassurance markers.
- ❖ Intersections on trail provide directional signs to towns and services located on the system.
- ❖ Mount signs on posts rather than trees.
- ❖ Large scale map that shows all snowmobile trails that are interconnected, trailheads, GPS coordinates for trailheads, location of services (gas, food, restrooms, lodging, telephone, repairs, and emergency), all roads and trails (label), named streams or waterbodies, town names, trail hosts, and land ownership. Trail locations should be based on GPS data.
- ❖ A groomed trail keeps riders on designated routes.
- ❖ On joint use roads, erect signs that warn all road users of mixed traffic.
- ❖ Trail maintenance performed before season opening and monthly thereafter to ensure the trail is free of obstructions.

The snowmobile trail system represents 51% of the trails on DCNR land in the Pennsylvania Wilds. As the biggest trail system, presenting trail information clearly and concisely can be challenging. It is important to work with local municipalities and snowmobiling clubs to ensure that all trails (on and off DCNR land) are shown on the map. Many riders will want to ride from their residence or seasonal home, or will park in a community because of services. Connections from the trail system into communities provide economic sustenance and provide important services to riders, like gas and food.

For each trail system (all trails interconnected with each other) it is important to display the system on one map. The trails south of PA 120 are broken up into segments that will fit on 8½ x 11 or 11 x 17 inch paper. The maps do not line up edge to edge and some trails are shown leaving the edge of the map with no indication of where they terminate. Fermata was pleased to learn that the snowmobile system in the Parker Dam area of Moshannon State Forest will be consolidated into one map similar to the North Central Snowmobile Trail Map. The same effort should be applied to trails in the southern Sproul State Forest and the Black Moshannon Area. The goal should be to have a set of maps that follow the same format, scale and style. Each map should show how it relates to other maps in the series (match lines). Once you have developed the new map set, discard the small versions. They are not adequate for trail navigation.

The features shown on the North Central Snowmobile Trail Map should be expanded to include: symbols for food, lodging, pay telephone and repair service and all intersecting roads and trails should be shown to aid in navigation. You may also want to develop the same map on Tyvek as a durable and waterproof option and charge a fee that covers printing costs.

State park maps need to show how their snowmobile trails connect to trails outside the park. On the extent of the map, designated snowmobile roads should be identified. Coordinate state park and state forest snowmobile trail maps to ensure they display the same trails. The Black Moshannon State Park map is good at showing how its trails connect to the larger system.

Reassurance markers need to be installed on all snowmobile trails. At present, riders in many areas would not be able to tell if they have left the designated system. It is important to remember that some recreationists choose public lands for quiet and solitude. To preserve their experience, it is important to keep snowmobilers on designated routes. Snowmobilers will often ask why they cannot go everywhere, often citing that they do not tear up the ground like ATV's do. This is the primary reason – to provide other types of experiences.

Evaluate isolated trail segments. Consider removing snowmobile designation if connecting to a larger system is not possible. Small trail systems simply encourage riders to trespass because what little they have ridden has whetted their appetite. The snowmobile trails in Kittanning State Forest in Jefferson County are a candidate for evaluation. The quantity of trails should provide an all-day ride as a minimum (50-80 miles), without requiring the user to ride over the same trail. For snowmobiles, with an average speed of 15 to 40 miles per hour, this could be several hundred miles (*Pennsylvania Trail Design Manual for Off Highway Recreational Vehicles*).

Cross-country Skiing

Attributes of a Model Facility

- ❖ Loop system that provides an easy warm up loop (less than 1 mile) and half day trips (4-8 miles). Provide several short loops ranging from ½ to 3 miles. Develop internal connector trails and cutoffs to allow different trail lengths and permit easy return access for tired skiers.
- ❖ Developed trailhead with information, site entrance sign, and off road parking.
- ❖ Detailed trail map with topographic lines, trailheads, GPS coordinates for trailheads, unique natural features identified on map, intersecting trails and roads, streams with names, difficulty levels for each segment, and trail mileage between intersections. Trail locations should be based on GPS data.
- ❖ Trails are marked with reassurance markers.
- ❖ Difficulty level signs posted at the start of every trail segment.
- ❖ Directional signing at road and trail intersections.
- ❖ Mount signs on posts rather than trees.

- ❖ Trail tread must be constructed with all rocks and roots removed and the tread graded to provide a smooth base for skiing. Turning radii should be at least 50 feet and ideally 100 feet.
- ❖ Normal trail grade at 0-5%. For sustained slopes, grades should not exceed 10%.
- ❖ At water crossings, use straight level approaches that allow skiers to stop before crossing. Bridges should have rails.
- ❖ Interesting landscapes, unique natural features, and good wildlife watching opportunities.
- ❖ Favor northeast-facing slopes, where snow cover remains the longest.
- ❖ Restroom at trailheads with high use. Make restrooms more spacious as people with bulky clothing will be using them. Provide hooks to hang coats or gear.
- ❖ Trail maintenance performed before ski season to ensure there are no obstructions or damage to trail.
- ❖ Provide information on snow and trail conditions on the website on one site that includes both state parks and forests, and expand the snowmobile hotline to include cross-country ski trail conditions.

Denton Hill Cross-Country Ski Trail, Susquehannock SF

Priority: High

This 23-mile trail system offers a variety of loops of different lengths and difficulty levels and is recommended as a model cross-country ski trail. The system follows a combination of logging roads, the Susquehannock Trail and simple woods trails. The trail is well designed and meets the needs of cross-country skiers – that is, grades are gentle, turns are widely sweeping, and the trail tread is constructed. The system is marked with signs at intersections and each intersection is identified with a number that corresponds to a map. On the north side of US 6, the trail needs more frequent reassurance markers (blue diamonds). In the winter of 2004-05 the trail was groomed by setting ski tracks. This area does fall within the eastern extent of the Lake Erie snow belt.

It is very important that trails whose primary purpose is cross-country skiing be constructed. The trail tread needs to be smooth and wide without roots, rocks and gullies. Simply marking a cleared path through the woods, as is done with many hiking trails, is not adequate to meet the needs of skiers. Grooming and setting ski tracks is not necessary, but doing so will attract more skiers and generally denotes a higher quality experience. As with snowmobile trails, if cross-country ski trails get a lot of use, track conditions may be rough and the level of use may necessitate grooming to maintain good conditions.

The scenery along the trails is average. The sections Fermata assessed were on the plateau and offered no extended views. The forest is Allegheny hardwoods, with a scant understory except for ferns. There is much active timber management along the trails. Some areas have been recently managed (slash still evident); others probably managed 15-20 years ago and are now a dense stand of saplings. The harvesting was done with sensitivity to the trails. Although it provided little shade on this hot summer day, it did provide a different variety of bird species to watch.

The trailhead is located on the grounds of the Susquehannock District Office. This trailhead also serves the Susquehannock Trail, Susquehannock ATV Trail and the Billy Lewis Trail. This is the ideal situation. Visitors can easily get information at the office, the

area is supervised so vandalism is minimized, and the proximity to the district office guarantees the area will be well maintained. Parking is ample. A few improvements in signing would add the crowning touches.

The University of Minnesota Cooperative Extension Service has produced a Recreational Trail Design and Construction Guide that provides good guidance on designing and maintaining ski trails, as well as other trail types (<http://www.extension.umn.edu/distribution/naturalresources/DD6371.html>).

The Art Roscoe Cross-Country Ski Trail at Allegany State Park in New York provides an example of a premier cross-country ski experience. The 25-mile loop system provides trails at all difficulty levels and specific trails for ski-skating. The trail is groomed regularly. The Summit Mountain Shop at the trailhead offers ski and snowshoe rentals, warm food, and retail sales. The high elevation and location in the heart of the Lake Erie snow belt provides good snow conditions. The park offers over 150 rustic winterized cabins, and the cabin colony near the ski trail system is booked solid on weekends soon after reservations open up. Many consider this trail system to be the best in the region. In the summer, the ski trail system is open to mountain biking.

Recommendations

- ❖ Improve traffic flow in the office/trailhead compound by providing signing that either directs visitors to information (office) or to trailhead (parking). This would improve traffic flow by reducing the amount of wandering trail users do as they search the compound for the trailhead.
- ❖ The addition of a central bulletin board with regulatory and trail information for all trail users (currently now just one for ATV trail riders) would provide users with necessary information.
- ❖ The direction to each trail should be clear from the bulletin board. Each trail should be prominently identified at their entrance with their trail name, as well as symbols on the allowed uses.
- ❖ The trail could be expanded on the south side of US 6 where the snow persists longer.
- ❖ On the north side of US 6, the trail needs to be brushed out and widened in the road right of way. The climb down the embankment was rough in the summer with hiking boots and would be more difficult with snow on the ground. The trails on this side of US 6 also need more frequent trail reassurance markers.
- ❖ Develop a contract or partnership that will provide for regular and dependable trail grooming.
- ❖ Construct a shelter at the trailhead that can be enclosed in the winter and serve as warming hut, or opened in the summer for picnicking.

Winter Activities – sledding, snowshoeing, snowmobiling

Chapman State Park

Priority: High

Chapman is recommended as the model site for winter activities in the region. The park offers camping, hiking and snowmobile trails, picnicking, fishing and boating. The park is well maintained and has newer facilities except for the beach bathhouse. The 68-acre lake is surrounded by forested hillsides. The park borders State Game Lands 29 and the Allegheny National Forest (ANF). The Allegheny Snowmobile Loop passes through the park, which connects Chapman to the 361-mile snowmobile trail system on the ANF. The park has a large sledding hill that is lit for night use.

Chapman is located on the edge of the heavy snow belt in Pennsylvania (most of Warren and McKean Counties are in this zone, about a quarter of Potter County). Chapman is located along the Allegheny Snowmobile Loop that serves the western Pennsylvania Wilds. Chapman also has the best developed sledding hill in the Pennsylvania Wilds.

The ANF gets frequent requests for cabin lodging, which is very limited in the area. The cabins in the Allegany State Park in New York are very popular year-round and during ski season the cabins are reserved well in advance. The addition of modern cabins that could be used year-round would serve a local demand for cabins. The cabin colony at Chapman should be directly accessible to snowmobile and cross-country ski trails.

Programming and services at Chapman could be expanded to enhance winter opportunities at the park. Contract with a local provider for hot food service at the sledding hill. A portable concession stand (trailer type used at festivals) may be best given the fluctuating snow conditions. Contract with local provider for cross-country ski, snowshoe and sled rentals at the park (Bike World of Warren does offer XC ski rentals). The park is presently served with a 3-4 month Environmental Interpretation Technician. Chapman is one of the few places that has a higher potential for winter recreation given its location in the Lake Erie snowbelt and its connections to the extensive winter trail system on the ANF. The Warren County Winterfest is held at Chapman in January and features sled dog races, figure skating exhibitions, cross-country ski lessons, free ski and snowshoe rentals, sledding events, food vendors, and ice safety demonstrations. Fermata recommends expanding programming opportunities further in the winter season. Programming on winter recreation techniques and winter wildlife watching (otters are known to use the lake in winter) could attract more visitors to the park during this typically low-use season.

Recommendations

- ❖ Add a modern camping colony to Chapman to supply winter lodging opportunities. Provide a direct connection to cross-country ski and snowmobile trails in the park.
- ❖ Contract with local vendors to provide hot foods and equipment rentals during the winter.
- ❖ Expand winter programming opportunities.

Level of Investment by Recommendation

Category	Recreation	Model Site or Recommendation	Size of Market	Level of Investment												
				Partnerships	Program-ming	Infor-mation	Signing	Inter-pretation	Main-tenance	Fees	Policy	Acces-sibility	Capital Low	Capital High	Planning	
Camping	Developed Camping	Black Moshannon SP	intermediate							X			X			
Heritage Tourism	Visit Historic and Prehistoric Sites	LHRIP - Pine Creek	broad	X					X							X
		LHRIP - Cook Forest	broad						X							
Sight-seeing	Visit Interpretive Centers	Sinnemahoning SP Portal	broad						X							X
		SB Elliott SP Gateway	broad						X							X
		Rocky Mountain Elk Foundation Center at Benezette (tentative)	broad						X							
	Driving for Pleasure	Elk Scenic Drive	broad					X		X						
Trails and Roads	Day Hiking	Cook Forest SP	intermediate			X	X			X					X	
	Backpacking	Quehanna Trail: Elk and Moshannon SFs, Parker Dam SP	narrow						X		X				X	
	Visit a Wilderness or Primitive Area	Hammersley Wild Area: Susquehannock SF	narrow			X	X								X	
	Mountain Biking	State Forest	intermediate			X										
	Mountain Biking	Eagleton Mine Camp Trail: Sproul SF	intermediate	X		X									X	
	Rail-trail Biking	Pine Creek Rail-Trail	intermediate	X	X	X	X				X	X			X	
	Horseback Riding	Kettle Creek Equestrian Trail: Sproul SF and Kettle Creek SP	narrow	X		X	X				X		X		X	

Category	Recreation	Model Site or Recommendation	Size of Market	Level of Investment												
				Partnerships	Programing	Information	Signing	Interpretation	Maintenance	Fees	Policy	Accessibility	Capital Low	Capital High	Planning	
		State Forest roadside parking	intermediate										X			
		Decommission Trails								X					X	
		Interconnected Statewide Trail System	intermediate												X	
		Off-road Driving	narrow			X	X									
Viewing Activities	View/Photograph Other Wildlife	Sinnemahoning SP	broad			X		X					X			
	View/Photograph Natural Scenery	Hyner View SP	broad					X			X		X	X		
	View/Photograph Wildflowers, Trees	Cook Forest SP	broad			X	X			X			X			
	View/Photograph Birds	Bald Eagle SP	intermediate		X	X	X	X					X			
	View/Photograph the Sky	Cherry Springs SP	narrow	X	X	X		X			X			X		
		Wild and Natural Areas	narrow			X	X							X		
		General Viewing Recommendations	broad		X	X						X		X		
Water Activities	Visit a waterside	Black Moshannon SP	intermediate		X			X								
	Coldwater Fishing	Kettle Creek	narrow	X		X	X	X					X	X		
	Flatwater Paddling	Clarion National Wild & Scenic River	narrow	X	X	X	X	X					X	X	X	
	Whitewater Paddling	Pine Creek State Scenic River	narrow			X	X				X		X			
	Swimming in Natural Waters	Parker Dam SP	broad													
	Warmwater Fishing	Sayers Lake: Bald Eagle SP	intermediate													
Winter	Snowmobiling		narrow			X				X					X	

Category	Recreation	Model Site or Recommendation	Size of Market	Level of Investment											
				Partnerships	Programming	Information	Signing	Interpretation	Maintenance	Fees	Policy	Accessibility	Capital Low	Capital High	Planning
Activities	Cross-country Skiing	Denton Hill Cross-country Trail: Susquehannock SF	narrow	X		X	X			X			X		
	Winter Activities	Chapman SP	intermediate	X	X									X	



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