TRENDS

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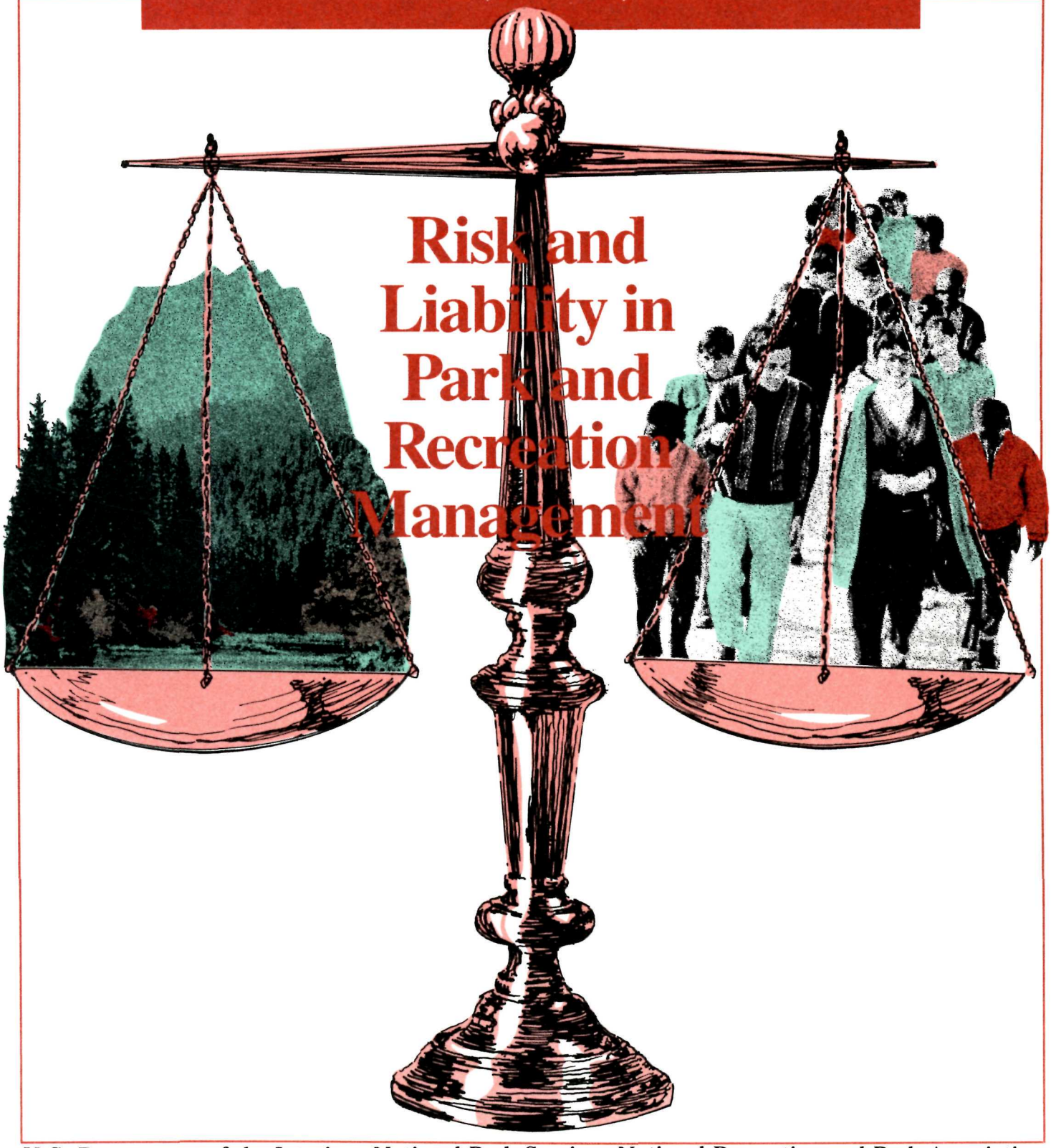

Risk and Liability in Park and Recreation Management

U.S. Department of the Interior • National Park Service • National Recreation and Park Association

TRENDS

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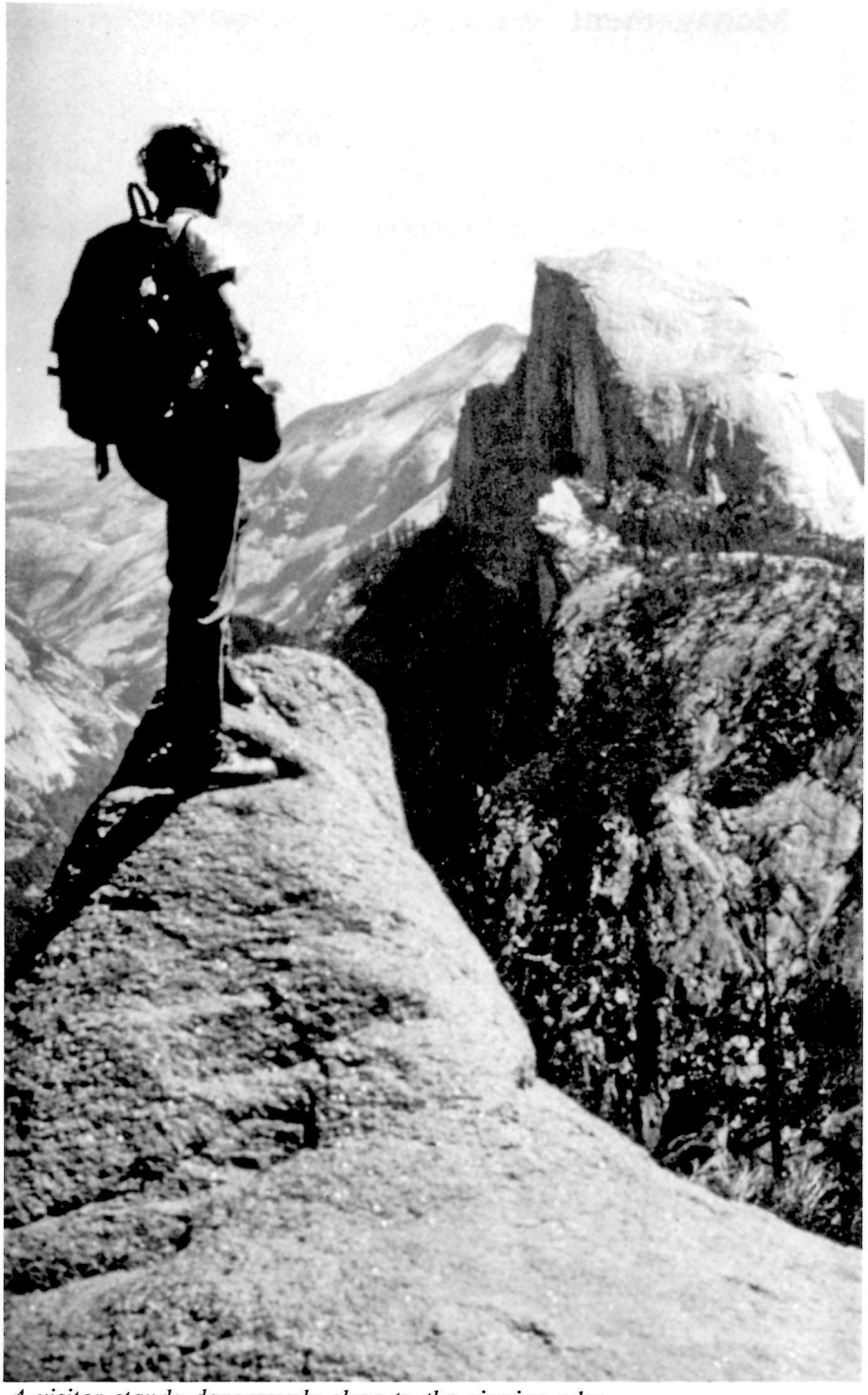
Introduction

by Connie Kurtz



A visitor stands dangerously close to the viewing edge.

Richard Wilburn, NPS

From the first day of an infant's life, he or she is taught to avoid danger and risks. Medicine and household cleansers are put out of reach, the toddler is repetitiously cautioned about what is "hot" and the child is taught to cross the street at the crosswalk and with the light. Even in adulthood there are warning signs in the job environment informing the worker to "Watch Your Head" in low ceiling areas and the skull and crossbones emblem on toxic material containers. We try to make the working and living environment as safe as possible to insulate and protect the individual.

But in park and recreation environments, that same cocooned person is encouraged to partake in activities that have high risk elements. In many parks, the attraction is the risk. As a city dweller, the individual is conditioned not to get too close to the edge of a platform because he or she might fall off. In a park, the visitor is encouraged to get right up to the viewing edge of a thousand-foot precipice.

How, then, do park and recreation managers weave between the lines of preserving the natural or cultural resource, providing access for the visitors and minimizing accidents and injuries to visitors and employees? The umbrella issue that hovers over the above concerns is liability, both agency and personal.

In this issue of TRENDS, Richard Wilburn, Marty Sterkel and Stephen Griswold point to

the agency or organizational liability and how it can affect and can cause change to the policy, procedures and theories of park management. Wilburn's article stresses the role of leadership and the establishment of measurable standards to minimize liability. In Sterkel's article, we see how the "baggage" that results from the desire to minimize liability can influence park planning. Griswold's discussion of the maintenance of wilderness and developed areas provides insight to the park manager as to what is reasonable and realistic maintenance that will lessen liability.

In the management of public risk taking, Mary Bean not only covers the growing trend of using public lands for risk recreation but also presents ideas on how the risk can be managed and minimized. Bean presents a thought-provoking look at real versus perceived risks.

These higher risk activities like climbing and swimming can result in visitor injury or death. The key question of whether the park is negligent in these accidents is the basis for many tort claim suits. Janna Rankin's article on the discussion of negligence, the Federal Tort Claims Act and on recent decision trends provides essential information for the park manager.

There is increasing usage of park and recreation facilities by the handicapped. Accessibility to riskier activities for the handicapped is addressed by Dave Park's "A Risk Or A Right" article. Activities that were once barred to the handicapped are now being re-evaluated and opened up for use. New legislation, advocacy groups and evolving attitudes have brought about these changes.

Even risks to employees involved in very high hazard activities can be minimized through proper planning and equipment. Art Jukkala, Bob Hensler and Ted Putnam's article on "Making the Wildland Firefighter's Job Safer" illustrates the point very well. With the unprecedented rash of wildland fires that have been occurring in the recent past, this article is very appropriate for the park manager whose park is under siege as well as for the manager who sends his or her employees to fight the fires.

Under the new environmental protection laws, liability does not stop with the agency or head of the agency as it does with most other legislation. In fact, any park manager or supervisor that has responsibility for hazardous waste management can be held personally and criminally liable for non-compliance. The articles by Cathy Davidson and Connie Kurtz discuss major hazardous waste laws and provide information on the legislative requirements that will help managers stay in compliance.

In the last article of this issue Dr. Seymour M. Gold points out the importance for public agencies to develop and update their risk management libraries.

We would like to recognize the late Richard Wilburn for his substantial involvement in the development and coordination of the subject matter for this and other issues of TRENDS magazine. He served as Branch Chief, Loss Control Management from August 1983 until his sudden death on July 11, 1989. Throughout his 39-year National Park Service career, Dick always had a keen interest in the advancement and promotion of safety management through training and education. We in the National Park Service's Washington Office will miss him.

Connie Kurtz is an Industrial Hygienist in the Branch of Loss Control Management, National Park Service's Washington Office.

Policy Compliance—An Examination of Some Side Issues

by Richard L. Wilburn

Why a Policy/Standard?

Did you ever have this kind of experience? You are driving down a highway—perhaps thinking of the job, home or your upcoming vacation. Your reverie is abruptly interrupted by a siren and a red light in your rear view mirror. The officer informs you that you have been clocked as driving 70 mph in a zone posted at 55 mph. Yes, you will probably be required to pay a penalty for negligently violating this standard of behavior.

The 55 mph speed limit is a standard that is based on a policy developed by the highway authority for a specific purpose. The officer's function is in part to monitor highway users for compliance with the policy and related standard. One of the objectives of the policy is to protect the safety and health of the user, in some instances against their own beliefs of how to use the public highways.

In the day-to-day working world of park and recreation areas, our managers face the same types of problems. The manager must analyze the degree of potential hazard and determine if some form of policy and formal controls are in the best interest of the public, the employee or the resources. The people the policy is directed at may not fully understand the need for controls nor agree with them. For example, we impose leash controls on dogs, a policy which many visitors find reprehensible for their pets. After all, their dog is not like any other dog and would never harm park wildlife.

Manager's Role

The role of a park and recreation manager is not a simple uni-faceted function, but rather is characterized by multi-faceted responsibilities. One could cite the responsibility to protect a resource which may be irreplaceable. Or one could cite the protection of the park user (customer) as paramount; after all, without the user (customer) the manager would not be a critical need. And who can deny the critical role of protecting the needs and welfare of the park staff? Few managers personally carry out the day-to-day assignments that satisfy organizational objectives. These objectives are accomplished by trained and dedicated employees who are directed and monitored by management.

Thus, it can be argued that perhaps the most important role of management is one of leadership (management and leadership are not necessarily synonymous concepts). Management can be defined as getting the job done through other people, whereas effective leadership ensures that the work accomplished is done in accordance with desired goals and that it satisfies organizational objectives as well as legislative and statuatory requirements. A manager's personal credibility as well as that of the organization may be affected by how well he/she carries out the role of getting the job done right and with a minimum of exposure to losses and liabilities.

Other articles in this issue will concentrate specifically on tort liability and personal liability under the Federal Managers Liability Act. In this article we will examine some of the side issues relevant to the park and recreation manager in the application of policy and standards—or in the failure to apply policy and standards.

Key Concept Analysis

Costly accidents happening to employees or visitors often result from a failure to conform to accepted standards. A rock climber who does not set the piton securely, perhaps because of fatigue, risks a severe penalty of a bad fall that is obvious to all. When a worker takes short cuts or uses "make do" procedures, the penalty may also be severe and is frequently equally obvious. It sometimes seems strange that although the possible consequences of short cuts or make-do are acknowledged, so many employees and managers are willing to circumvent standards in order to save time, funds or because it seems expedient. The consequence may be injury, property damage or tort liability. It is certainly a lowering of efficiency, effectiveness and productive quality.

Loren West, NPS

This crack in a high limb is not immediately visible to the untrained eye from the ground.

Another consequence of such failure, especially if repeated, may be a loss of credibility. Credibility, as defined by the *American Heritage Dictionary,* refers to plausibility, being worthy of confidence and a capacity for being believed. Managers may establish personal and organizational credibility through the formation of sound policy and the follow-up to ensure that it is applied. Receiving that traffic ticket may result in more than a fine. It could result in loss of a driver's license and it could result in a question of your driving credibility by others. The organization's internal control and the manager's credibility may also suffer if he/she routinely allows or encourages slip-shod work practices, make-do work or procedural short cuts to save time or dollars. These practices are violations of the Financial Integrity Act and established organizational and trade policies. Thus, the manager has increased the potential for liability by the failure to comply with known legislative, regulatory and/or trade standards.

A policy may be defined as a course of action, a guiding principle considered to be prudent, expedient or advantageous. Setting policy is arguably one of the more critical functions of management. But policy alone is not sufficient to get the job done right. There must be some established set of criteria to guide the work, some acknowledged measure of comparison for quantitative or qualitative evaluation. There must be an established level of requirement—a base on which authority is determined.

These are definitions for standards; the specific practices and procedures for getting the job done right. Standards become the manager's guidelines for implementing policy and evaluating the end product. Accepted standards are often used by the courts as a means for evaluation of correct procedures and practices as well. Standards are usually developed around philosophies or concepts. The value of the standard bears a direct relationship to the relevancy of the concept.

We have now arrived at one of the major problems in day-to-day operations. Many, perhaps most managers are not knowledgeable of the standards they are expected to coordinate and control. Peter Drucker, a prominent business and management consultant, has studied the application of standards. He has written that a major problem in modern management is the lack of understanding by responsible managers of the standards that apply to their operation or business. He states that this phenomena is almost universal.

If this is true in any organization that is responsible for public and employee health and safety, it is patently obvious that liability for negligence increases—both personal and organizational. At the same time, credibility as a manager and/or a leader suffers. These factors related to knowledge of one's work responsibility are often the points on which accountability is based. "Accountability" for proper performance is a basic factor in a manager's role and function. Accountability implies acting in a credible manner, the capacity to be trusted and encompasses being answerable for actions or omissions. Thus, one may be found to be accountable for standards that he/she did not

know, understand or even accept as reasonable.

What to Do

It certainly makes sense for managers and their employees to take the time needed to become familiar with the policies and standards that reference their work. Managers would be well advised to ensure that all employees are provided with orientation to pertinent organizational and trade policies and standards. All employees should know the basic objectives and mandates for their organization and how their assignment contributes.

Consider the findings described in an issue of *Business Week* dated June 8, 1987, which highlighted "quality." The authors pointed out that a typical American factory invests as much as 25 percent of the total operating budget on locating and correcting mistakes. Other studies have repeatedly shown that job errors (accidents) are often the result of violation of work standards—of make-do or short cuts. In these austere times, can we afford to tolerate these kinds of mistakes? The same issue of *Business Week* also pointed out a need for major changes in design, manufacturing processes and in management thinking.

The question is, 'are government operations and government managers essentially similar to those in the factories?' Do we spend an inordinate

Loren West, NPS

Protection from liability caused by this tree fall may rest with the Hazard Tree Policy and its implementation.

amount of our resources, funds, equipment and people in the correction of mistakes? One has only to read the daily news or listen to television reports telling of waste, fraud and abuse in many government operations to see a similarity. There is no real reason that we can see to believe that we are not in the same circumstances as the factories described in *Business Week*. If this is true, government management practices do need rethinking. Leaders need to instill vision, meaning and trust in their followers; elements that are all too frequently missing according to Bennes and Nanus in their book, *Leaders*.

Some managers have complained that there are too many safety, health and environmental control standards. This takes away from a manager's flexibility and impacts on budget and operations. This is probably true. Compliance with specific standards, such as the disposal of infectious waste, does impact on budget, personnel and the way operations can progress. But so do other laws and regulations such as traffic standards for speed and stopping at intersections. Who among us can select which standards (laws) we should stringently enforce and to which we can give only lip service or ignore? Those that are by-passed may come back to haunt us!

Historically, American managers have not given attention to

standards of safety and health, such as fire codes, on a voluntary basis. A direct result of this failure has been the establishment of the Occupational Safety and Health Act (OSHA) with broad requirements. Initially government agencies were not required to comply with OSHA standards, but were authorized to develop their own programs that simply had to meet the intent of OSHA. After about 10 years, punctuated by government agencies failing to develop in-house standards or in which they repeatedly violated their own standards, the President signed Executive Order 12196 in 1980 that requires full compliance with OSHA.

We therefore have come to believe that ideas such as flexibility are smoke screens and rationalizations for not conforming to safety and health standards. Much of the problem is centered around a lack of knowledge by responsible managers of the purposes and content of the standards they are accountable to execute. It is difficult to solve a problem that has not been clearly identified and analyzed. It is difficult to meet a standard that is not understood in purpose or content nor in which possible consequences are not objectively analyzed.

In closing, I will cite a case brought before the Supreme Court in 1981. A major textile industry had objected in court to fines imposed by OSHA following plant inspections. OSHA inspectors found that the high levels of cotton dust violated health standards and, in addition to imposing fines, asked that steps be taken to control the dust. The company complained that it would be too costly to make the needed corrections and that a cost-benefit analysis should be considered as part of the OSHA report.

The court ruled that the intent of Congress was to protect the safety and health of workers. Cotton dust possesses an acknowledged threat to health; therefore, the standard is "reasonably necessary and appropriate." The benefit to worker health is placed above other considerations; therefore, a feasibility analysis for correction is required but not a cost-benefit analysis. (American Textile Manufacturers Institute, Inc., et. al. v. Donovan, et. al.).

Conclusion

Many negligence/liability claims result from questions about appropriate policy and standards. Was there a written policy? Did employees know of and implement the policy? Were the standards appropriate for the circumstances? Were suitable authority and subject experts consulted in forming the policy and standards? Good written policies and implementation standards are important to assist managers in ensuring that organizational goals are met. Managers can help themselves and their organizations by becoming familiar with the standards that apply to their operations and ensure that other employees are also familiar. This way, managers can be sure that work is completed in accordance with consensus practices—in a correct, professional manner. Any increases in costs of doing the job right can be offset by the lowering of costly litigation and negligent claims. In addition, the credibility of the manager and his/her organization will receive a positive boost.

Loren West, NPS

The Hazard Tree Identification Standard calls for striking the tree trunk with a pole axe and listening for a "hollow" sound.

The late Richard Wilburn was Chief, Branch of Loss Control Management and Tort Claims Officer for the National Park Service. He died on July 11, 1989.

The "L" Word

by Marty Sterkel

Three billion dollars may seem like "small change" when you're talking B-1 bombers, but when the subject is outdoor recreation, it equates to a significant investment in the health and well-being of this country's citizens. Since the inception of the Land and Water Conservation Fund (L&WCF) program in 1964, the 25-year history of that program's $3 billion in appropriations has served to "fund assist" every imaginable outdoor recreational acquisition and development type of project. Whether it was rodeo bucking chutes in a Western state, an artificially created white water kayak course in the Midwest, development of an entire state park system or a wave pool a thousand miles from any ocean, this single program has provided more recreation opportunities than any other program of its type. When you note that the $3 billion is only the federal matching share of any grant, you can easily double that $3 billion to get an idea of what has been accomplished. Numbers tell us some of the story very succinctly. Over 2 million acres of land have been acquired under the program. Over 30,000 projects have been approved.

Recently the L&WCF authorizing legislation was extended for another 25 years. Although the program has enjoyed high approval ratings over the years, change is on the horizon. New pending legislation may provide for a major revision in this program as well as a more secure

Marty Sterkel, NPS

Marty Sterkel, NPS

Marty Sterkel, NPS

White water kayaking in South Bend, Indiana.

funding base. Funding, historically, has been provided by the congressional appropriation process and will continue in this manner. There have been lean years in the recent past with major "deficit" issues facing the nation. Federal, state and local recreation, acquisition and development projects have all felt the pain of reduced funding. The world of public recreation has undergone incredible evolutionary change in the same 25 years that the L&WCF has been around. New industries regarding the recreation field have been established. New fields of study have been created. In fact, the whole concept of recreation has changed and evolved and with it the language has undergone an evolution.

Leisure is the word today. Service area, program input, support facilities, marketing, strategic planning, private sector, corporate involvement and the big "L" word (liability) have become common at all levels of recreational management, provision of leisure services or whatever you want to call it today.

The variety of societal changes has been documented in many recent publications. Those changes have been analyzed a variety of ways on a myriad of issues. Only recently have I done some researching and reflected on some impacts of these changes and noted that perhaps one of the most significant is liability. There is no question that funding, policy and other characteristics of managing any leisure-oriented program or agency are extremely important. But the degree to which contemporary management of recreation resources and programs have been impacted by the liability issue, in many instances, is just as extreme.

Many new revenue alternatives have dealt with reduced federal sources of funding major or even minor local and state recreation, acquisition and development. The degree to which the "boat floats" is a factor of local and State commitment to provision of those recreation opportunities. What is in this "boat" is a factor of a sensitivity to the liability issue. This tendency to be targeted for litigation by folks injured while pursuing their leisure options is not a temporary condition. It is with us and has been for some time.

Legislative relief from major penalties is becoming more common each year. How has this impacted the recreation provider specifically? Let's look at some examples of change in the type of projects funded over the years under the L&WCF and note that the trend shows "liability" and its related "baggage" have been responsible to a significant degree for what is happening. This "baggage" is higher insurance rates, higher cost of development and maintenance to improve risk management and any steps or measures taken directly or indirectly to avoid being a target of litigation and comprising the image of a recreation provider.

The following examples are perceptions gained in my 18 years of association with the L&WCF. Although some examples listed are trends associated with financial concerns, liability has also been a major influence in managers' selection of options:

- Rehabilitation of old playgrounds to provide less risk of injury. New equipment standards and a significant amount of research on "surfaces" has been conducted to deal specifically with visitor/user protection.

- Less emphasis in recent years on intensive recreational development and more emphasis on passive use or a natural environment creates less risk from equipment injury and, in some cases, reduces maintenance costs for risk management.

- Related to replacing playgrounds and active options giving way to more passive ones is a move toward changing the "play value" of certain playgrounds in order to provide a safe play area. Equipment selection is a very scrutinizing process for today's managers who make procurement decisions.

- Less water-oriented projects. From pools to lakes, the risk of water-related accidents looms big in the minds of today's manager.

- A clear tendency to build or develop facilities capable of

generating adequate revenue to offset high insurance premiums for liability protection. (For example, water slides.) Self-sufficient facilities from the revenue standpoint. Not only because of narrow focus of recreation utility but also from a revenue offset cost standpoint.

- A much greater tendency to build a facility which is safe and accessible to persons with disabilities as opposed to several marginal facilities to meet the current crunch of overuse (e.g., a well-designed, complete ballfield complex instead of a variety of minimally developed fields spotted in many locations).
- Active vs. passive takes on a different meaning when we talk about trails. Although trails in the past have been traditionally considered "passive" facilities, with the current fitness trail and increased wellness concerns, this is no longer the case. Trail projects abound nationwide. They are common, comprehensive and appear to be increasing steadily. Self-use appears to be a means (with good maintenance) in the eyes of current managers to reduce an agency's risk as opposed to intensive facility development. This perception may be false, but the psychology of the user may be the most important factor in selecting this type of development.

The trends in what is not being funded would more likely deserve the title of the "Endangered Species Development." These are:

- Shuffle board courts (outdoor)
- Horseshoe courts
- Major picnicking pavilions (new construction)
- Outdoor handball courts
- Flooded ice-skating facilities (multiple-use courts)
- Conventional swimming pools (new construction)
- Shooting sports facilities

Certainly, capital and maintenance costs of facilities and changes in demand have played a large role in the demise of the above, but liability has also been an issue that has focused attention as far as grants projects away from this list.

What do all these trends tell today's manager who is getting ready to make decisions or applying for grants that *may* ultimately be affected by liability concerns and limited availability of funds?

1. Select less intensive development projects.
2. Rehabilitate old facilities if needed to reduce risk.
3. Select projects that may have higher risk potential but also have revenue-generating potential to offset higher protection costs.
4. Take a close look at strategic acquisition in order to develop complexes of complete facilities, e.g., ballfields as opposed to spotted locations without adequate development potential.

What does the future hold as far as new trends? Adverse rulings against recreation providers will determine to a large degree what new trends will surface. A change in the "tastes" of the recreating public will also determine future trends. The degree of public support through grant programs (federal, state and local) will also be a barometer of tomorrow.

Like many problems, much of what will happen regarding liability and its impacts on recreational facility development is *attitudinal*. Will the public begin to take more personal responsibility for their leisure activities? Perhaps the risk takers of tomorrow will also take personal responsibility for their actions, and the most important trend of all will be one of less litigation and a healthier citizenry. That would surely mean a wider variety of facilities with a much greater value to large numbers of recreationists.

Marty Sterkel is Chief, Project Administration, Recreation Grants Division, with the National Park Service's Midwest Regional Office in Omaha, Nebraska.

Fall In—No Come Back: Liability from a Backcountry Perspective

by Stephen Griswold

Wandering off the main trail on an overgrown rain forest path in a foreign national park, I came upon an old sign nailed to a tree. The tree stood in front of a makeshift cable and chain link bridge over a raging chasm of jumbled, jagged boulders. The bridge deck consisted of a few timbers held together by twisted fence wire. The rusty and chipped enamel sign warned the intrepid explorer about the hazards of this particular crossing and bridge. The sign read:

CHRISTI (big chip missing)
FALLS—DANGER
UNDERGROUND RIVER
Swift Current
FALL IN NO COME BACK

A Wilderness Attitude

This bridge and that sign summed up my perception of the management attitude toward wilderness liability in this distant country. Warn the visitor about the hazards of both the wilderness and the developed facilities within the wilderness and leave it up to the visitor to be prepared to safely deal with the hazards encountered.

Admittedly, this sign and bridge were not on the main trail. They were on an abandoned, nearly overgrown side trail, but the sign's message still rang clear and has stuck in my mind: "Hey pal. This is it. Wilderness. Foul up and it's all over. Fall off this dangerous old bridge and you won't come back."

As a visitor to that park and foreign country, I was impressed by the realistic "chances are taken" approach to backcountry liability and maintenance. But I know well, working as I do in one of *our* country's great wildernesses, that it's a heck of a lot more wild to visitors than it is to the park managers—the ones who see it as a *park*, a managed land contained within finite boundaries. On my trip I was taken by the perceived wildness of those foreign parks, in spite of an often heavy-handed management presence. There were huts, hut fees and hutkeepers: mandatory itineraries and "no stopping" zones where avalanche danger was high . . . as well as extensive trail systems, frequently constructed and maintained with intensive helicopter support.

Stephen Griswold, NPS

A warning sign in wilderness New Zealand.

Yet the wilderness expectation on the part of the visitor remained undaunted: a spirit of adventure, a spirit of wildness, a sense of unknown. It is this unforeseen quality of wildness, untamed, raw, even primeval, that a backcountry visitor must prepare for and anticipate.

This is the expectation that we as managers need to maintain, to encourage and perpetuate. This basic quality of wilderness, a spirit of place, is reflected in this country by the National Park Service's mandate to preserve and protect, as well as the Wilderness Act. A preservation of the wild landscape, and its wildness, is legislated; preserving the unexpected and unknown adventure is implied.

Fortunately, our courts have agreed. To some degree.

Backcountry Liability

The courts have upheld the notion that unimproved backcountry is indeed raw, untamed, wild nature where your fate is in God's hands, as well as your own. You take your chances, rely on your skill, your knowledge and on your preparation to have a successful, safe and enjoyable encounter with the primeval wilderness. You are on your own and we, the people of the United States, are not liable for all that happens within the bounds of our undeveloped wildernesses.

Yet, regarding the maintained features of that wilderness, the courts have not been as clear. As

with all maintained facilities, attached to constructed and maintained features in the backcountry is a reasonable liability and responsibility for upkeep. Liability depends on quantity and nature of use, remoteness and other undetermined and individual factors. It is our job in the field to maintain the facilities, but funding priorities and the unpredictable and dynamic qualities of the wilderness combine to often make response slow and results inadequate.

What if

What is our liability to the park visitor who blindly follows a prehistoric trail route through precipitous rockfalls, across seasonally raging rivers and over snow-buried passes which we, the park managers, recognize as a less-than-ideal alignment? What if a backcountry visitor is walking across one of our bridges and a piece of decking breaks, and they fall through, and . . . What if a stock party dislodges an outside wall rock on a steep pass switchback, the string steps off, and . . . Or a backpacker leading a group of novices follows a trail into the high country and leads the group up a snow closed pass, thinking that he is "following" a trail, and they lose their footing on morning ice and they slide, down . . .

I've learned enough in my "research" to date to know that I cannot predict what will happen when these questions go to court. In one case is a maintained structure, another is a maintained trail and in the final one is a maintained route. All are maintained in some manner, but many facilities may be in less than perfect shape at any time.

We'll leave to the experts the question of reasonable liability, but we can discuss what is reasonable and realistic maintenance. What really happens in the backcountry?

Trail Systems

All of our great wilderness parks have trail systems which, depending on terrain and use, are maintained to a variety of standards to promote resource protection and visitor safety. Our modern trail systems have typically evolved from historic or even prehistoric routes which, for the most part, did not take into account either resource protection or the safety of large numbers of inexperienced visitors. From a park manager's perspective, many of our trails do not meet basic NPS criteria for resource protection or visitor safety and are in need of reconstruction, rehabilitation and/or rerouting.

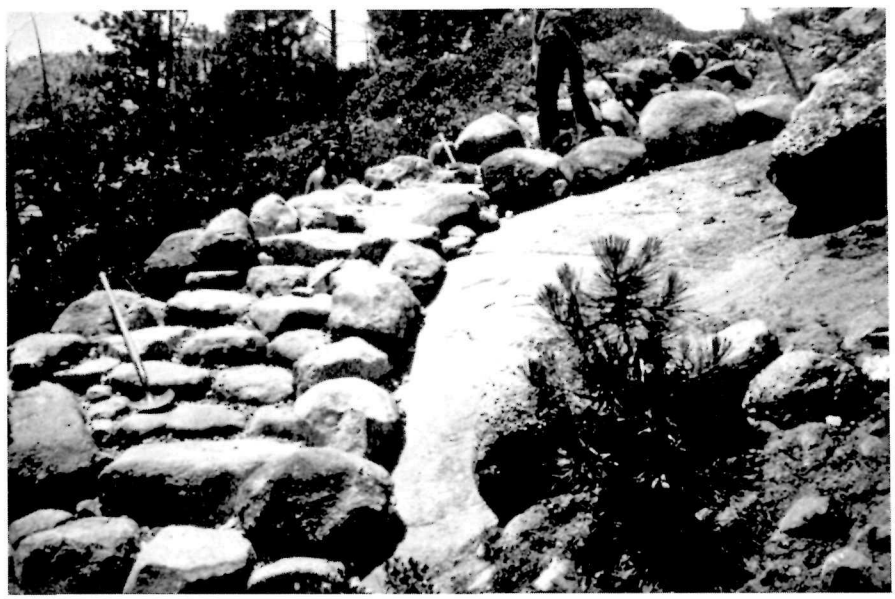
What are the factors in modern trail design? If historic routes did not exist, what would we look for in designing a new trail? Two basic criteria have already been mentioned: resource protection and visitor safety.

Resource Protection. A trail must have a minimum affect upon the backcountry resource. Above all, natural processes must be allowed to continue to prevail. Natural drainage patterns must be accommodated by a planned and constructed drainage system. The trail should steer clear of sensitive plants, wet or meadow environments where impacts may be easily amplified and sensitive cultural resources.

Visitor Safety. Trail routes should not expose the visitor to avoidable hazards; steep crumbling cliffs which may fall or off of which visitors may fall, treacherous water crossings or crevasse-filled snowfields. However, where does our obligation to provide visitor access to remote backcountry areas become overshadowed by our concerns for visitor safety? Our new trail alignment must reasonably meet a visitor's expectations for the "wilderness experience" as well as insulate them from the direst consequences of what that experience could truly become.

Other Criteria. The trail must be constructed to a sound standard and provide a satisfactory aesthetic experience. Scenic vistas such as high overlooks, views of water or falls or expanses of meadow should be used to advantage. Park standards for maintenance and protection of the resource along with park standards for safety are outlined in a trail handbook, a backcountry plan, a resources management plan and others. How are these implemented in the backcountry? How do our backcountry facilities match up to these standards?

Backcountry Maintenance and Reconstruction



Stephen Griswold, NPS

A reconstructed bedrock section in Yosemite National Park.

As a trail foreman, I supervise crews that construct, reconstruct, maintain and rehabilitate trails, bridges, cabins, fences, signs and other facilities in the heavily-used frontcountry areas as well as the remote backcountry areas of the park. We just do the best job that we can. We identify the problems, prioritize them and solve the ones that we can, as well as we can. Backcountry crews do an admirable job, enduring daily hardships and frustrations that would make the typical office worker take annual leave. The crews are underfunded, understaffed and may be forced to make do with inadequate tools and supplies. Funding for these crews is the first to go when park budgets are threatened. Backcountry problems must be solved within the constraints of limited time, threatening environments and often limited expertise. How does this stack up against our responsibilities for liability?

Each season we make an attempt to maintain all the trails (or entire trail systems consisting of officially maintained trails) in the backcountry. This includes trail opening (cutting logs, shooting boulders) as well as thorough drainage maintenance to prevent washouts and impede erosion, including digging clear the drains and replacing or reconstructing damaged drainage structures, mainly waterbars. We attempt to do this annually, and do a darned good job most years, but a few miles of trail are always left unrepaired or poorly maintained. Realistically, we just don't get everywhere every year.

In addition to this maintenance, we systematically reconstruct sections of trail as "repair and rehab" projects. These are the sections where resource damage is occurring, where historic trail construction is about to be lost and where safety hazards may exist. There are many of these projects waiting to be constructed. The list is seemingly as long as one's imagination, but realistically only the top ten or lower have a shot at funding in the foreseeable future. New projects will crowd onto the list faster than old projects are completed.

Each season is different: in the heavy winter with deep snow and avalanches and flooding we can't get into the backcountry until later when the damage is worse. Spend another season catching up and just catch your breath and here comes another one. And that's just backcountry opening and maintenance. It takes a drought year to get any kind of reconstruction done.

How do we decide what project to tackle next? How does that resource damage, or that safety problem, get on the list with all the rest? How does a proposal become a reality?

Backcountry facilities, in particular trails and bridges, should be inspected annually and their condition should be noted for future planning. Along trails drainages, waterbars, inside and outside walls and other structures should be inspected. At bridges stringers, decking, footings and abutments should be inspected

and conditions noted. Reports are used to prioritize projects with respect to safety, resource damage, available money and available crews, among many factors.

In a nutshell, potential projects are surveyed, reported on, planned, mapped and photographed and prioritized before they are proposed, reprioritized, replanned, remapped and rephotographed, and I hope someday finally funded. Then the funding must be used effectively to actually get the project accomplished. Funding is never adequate, and results are rarely as thorough as originally imagined. And that's just for the fraction of projects that make it that far.

Stephen Griswold, NPS

Over 400 yards of trail were buried beneath the avalanche in Kings Canyon National Park.

What's Out There

What this all means is that there are trails and facilities out there, in the vast wilderness, that are sub-standard, that are not in as good shape as we, the managers, would like to have them, or in some cases would like to think they are. It's a rough, hazardous environment.

Around any bend in the trail may not only be an icefall, rockfall, high water or low flying aircraft, but also a washed-out trail, or a slippery water crossing or a steep, eroded hazardous set of switchbacks. There may be a rockwall collapsing or a bridge in temporary disrepair. Not to mention the resource damage—the trails in fragile meadows, and the eroded gullies of abandoned trails.

In most cases, we know about these deficiencies, and we plan to get to them, someday. Meanwhile, it's a slow and never-ending process as new projects appear each season. We're making progress, in spite of it. We do what we can. The visitor must be prepared to FALL IN—NO COME BACK. That is why the spirit and the attitude of a cautious approach to the backcountry must apply to our maintained facilities as well as our undeveloped wilderness.

This attitude is communicated to the backcountry visitor with literature and signs—danger, cuidado, caution, FALL IN—NO COME BACK. We can't sign every danger, we can't tell them exactly where and what they will encounter, but we can tell them what to be prepared for.

Trailheads are signed and permit literature warns about hazards. Beyond that, visitors must accept the risk and approach the backcountry slowly and cautiously; as if around the next bend is a rockslide or fast water or slick, slippery rocks. Because around the next bend somewhere *are* all of these things, and WORSE!!! And the courts must continue to recognize all of these factors and uphold the concept and the challenge and the spirit of the backcountry. The spirit which the visitor embraces when he/she chooses to enter. **FALL IN—NO COME BACK**

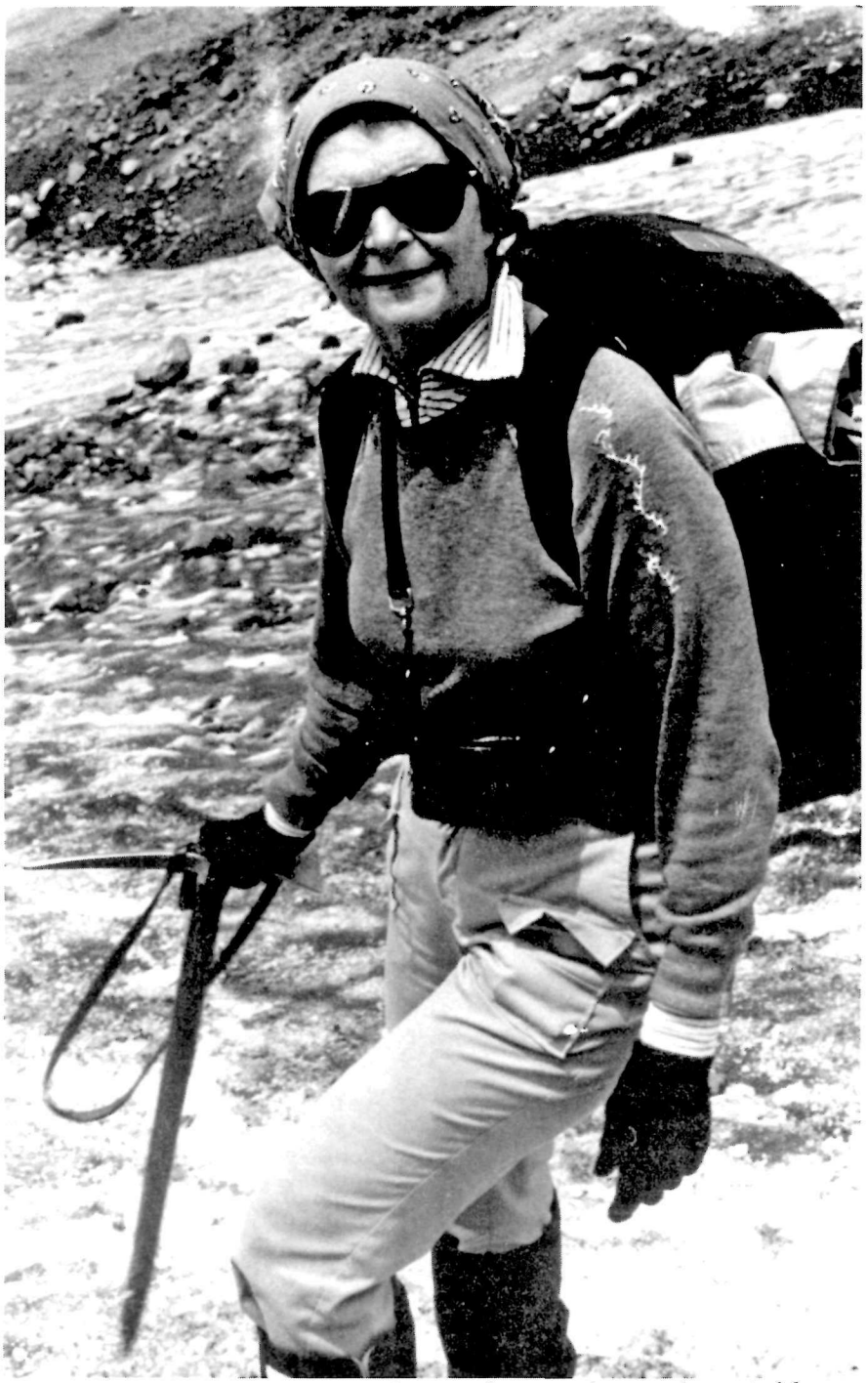
Stephen Griswold, backcountry foreman at Kings Canyon National Park, Calif., has recently completed an illustrated Trail Handbook for the park's backcountry crews.

Speaking of Risk

by Mary E. Bean

Vacation is a time to leave behind the mundane order and discipline of everyday life in search of exciting new places and pastimes. People often travel to national parks anticipating adventure and a change of scene, but the very qualities that attract people to parks may also put them at risk. Visiting a park often involves exposure to unfamiliar environments and activities. If visitors perceive park areas as risk-free environments or believe that park rangers will rush to the rescue in the event of a mishap, the results can spell trouble.

What types of risks are present in parks, and to what degree are managers responsible for the safety of park visitors? How can we enhance public safety without compromising the qualities that make parks appealing in the first place? In order to address these questions, we must consider the nature of risk, how people perceive risk and the implications for park managers.



Alan Ewert, USDA Forest Service

The very qualities that attract people to parks may also put them at risk.

The Nature of Risk

Risk is commonly defined as the probability of loss. This definition overlooks an equally important aspect of risk: the potential for gain. People take a multitude of risks in their everyday lives. Buying a home, playing the stock market and driving an automobile all involve some degree of risk. Few people would be willing to take risks if the potential for gain was not equal to or greater than the probability of loss. Therefore, a

more appropriate definition of risk might be: any activity in which there is some degree of uncertainty regarding the outcome.

Intentional Risk. Sports, like rock climbing, hang gliding and white water boating involve deliberate risk taking for the fun of it. People who engage in such activities are referred to by a variety of names: thrill seekers, daredevils, adrenaline junkies or worse. In more professional circles they are known as risk recreationists. They actively seek varying degrees of risk, based on their perceptions of their abilities and the probabilities for success.

White water recreationists surveyed on the Green and Yampa Rivers in Dinosaur National Monument, Colo., and Westwater and Desolation Canyons in Utah reported that the strongest and most consistently desired outcome of white water boating was the sense of action and excitement. People who intentionally seek risk through recreation often speak of benefits such as increased self-confidence, self-reliance and self-esteem. The potential for such benefits is what makes the risk worthwhile.

In recent years, public lands have increasingly become playgrounds for risk recreationists. Land managers are concerned about this type of recreation due to the potential for serious injury and liability.

Unintentional Risk. While one visitor may actively seek risk, another may stumble upon it unintentionally. A casual hiker, unfamiliar with an area, may suddenly find himself at the mercy of rapidly changing environmental conditions such as elevation and weather. A foreign visitor may see others approaching a herd of bison calmly grazing by the roadside, and assume it is safe to do the same. A youngster may wander off in an undeveloped area and fall into a stream and drown. Unlike risk recreationists who voluntarily engage in calculated risks, the unaware visitor may take extreme risks without even knowing it.

Whether park visitors intentionally seek risk as part of their recreation experience or find themselves exposed to unanticipated danger, park managers may ultimately be held responsible for their safety.

Perceptions of Risk

In addition to distinguishing between intentional and unintentional exposure to risk, how people perceive risk is also key to our understanding of the issue. In this context, two types of risk can be distinguished: subjective, or perceived risk, and objective, or actual risk. An individual may subjectively perceive an activity as involving a high degree of risk, when objectively, it does not. The sport of skydiving provides a good example.

Skydiving is perceived to be a high-risk activity because an accident usually has severe consequences. A look at the statistics suggests that this high-risk perception may not be accurate. On the average, one fatality occurs for every 70,000 jumps made. On the other hand, skiing, which may not be perceived as a high-risk activity, results in 3.8 to 10.3 injuries for every 1,000 ski days.

There are obvious risks inherent in activities like kayaking and hang gliding. But although an estimated 10,000 Americans die each year due to participation in some type of risk recreation, that number is low compared to fatalities from motor vehicle accidents, household and industrial accidents or deaths from natural causes.

Experts in the field of risk recreation argue that the degree of risk to participants in these activities varies and generally decreases with instruction, experience and the proper use of equipment. For example, *Canoe* magazine reports that of 94 boating fatalities occurring in Pennsylvania between 1971 and 1976, 89 percent had no Personal Flotation Device (PFD) in the boat. Of 25 fatalities on the Southeast's Chattooga River, 21 were attributed to a failure to wear a PFD or to wearing it improperly.

Nonetheless, public land managers may be reluctant to allow certain activities due to safety and liability concerns. A survey of public land managers in the northern Rockies revealed that water skiing, rock climbing,

skydiving, hang gliding and caving were perceived as high risk, difficult to manage and inappropriate activities on public lands.

While these concerns are legitimate, land managers' perceptions of risk may not be accurate. Peter Sandman, head of environmental communications research at Rutgers University argues, "The core of the problem is that the risks that kill people are often not the same as the risks that frighten people."

For example, due to safety concerns, the National Park Service (NPS) forbids kayakers to run Great Falls on the Potomac River, which runs through Great Falls Park and George Washington National Memorial Parkway. Maryland's Department of Natural Resources administers the river and the falls, so kayakers continue to run the falls by entering the river on the Maryland side.

Kayakers view the situation differently than park managers. Seventy kayakers have made more than 1,000 runs over the falls in the past 13 years, and none of those runs has resulted in a serious injury or fatality. Pope Barrow, a veteran kayaker of the area, told Terry Kilpatrick in a recent article for *National Parks* magazine: "If you were standing at the top of the falls and fell in, you'd probably die. But an expert boater can go through the first two drops and maybe not even get his face wet."

J. Bauermeister, USDA Forest Service

There are obvious risks inherent in activities such as kayaking.

Former George Washington National Memorial Parkway superintendent John Byrne realizes that risk is not an absolute, but varies with individuals and situations. He also expressed his concerns in Kilpatrick's article: "There are three kinds of people out there. First are the expert kayakers, second are the kayakers who think they are experts but, in fact, are not and third are the visitors to the parks who would like to play in the river but may not perceive the danger. It is the last two that worry me."

Byrne's concerns are well-founded. When risks are present

but not perceived, behavior based on these false perceptions may have serious repercussions. Two legal cases illustrate the point. In one case in Yellowstone National Park, a grizzly bear killed a camper after the NPS had closed several garbage dumps where the bears had been habitually feeding. The National Park Service faced liability charges on the grounds that they had created or exacerbated the grizzly bear hazard by closing the dumps and failing to inform park visitors of their actions and the possible consequences.

In a second case, the NPS was held liable for the death of an 8-year-old boy who was killed when the motorcycle he and his father were riding plunged down an abandoned mine shaft on a national recreation site. The court concluded that there was inadequate notice or safeguarding of the area, and called it a classic example of a "hidden peril." Although one might argue that the motorcyclists were engaged in a risky type of recreation, the fatality was the result of a risk that was not apparent to those involved.

Park visitors will be exposed to varying degrees of risk, either unintentionally or by their own design. How can managers enhance the probabilities of visitor safety, and lower the odds of liability suits? Proper construction and maintenance of facilities is one answer. Another is to regulate activities that pose threats to visitor safety. A third approach is to develop effective means for communicating risk to the public.

Risk Communication

Public land managers are not alone in their efforts to develop effective ways for communicating risk information to the public. Other agencies are also addressing the challenge, especially as it pertains to environmental and technological risk. In 1988, Columbia University, in cooperation with 35 public and private groups, established a center for risk communication. In addition, Carnegie-Mellon University received a $1.3 million federal grant to set up a risk perception and communication program.

Several factors have been identified as key to how the public evaluates a potential hazard. Magnitude is one factor. If many people are harmed as a result of exposure to some hazard, others tend to take it seriously. Evidence is also important. Specific examples detailing the consequences of exposure to risks are more effective than vague suggestions that certain activities are dangerous. Publicity also affects perceptions of risk. Media attention heightens public concern, especially if children are at risk and if media coverage makes victims identifiable. Risks posed close to home are taken more seriously than abstract, non-personal threats. Personal choice also plays a role in how the public perceives risk: voluntary risks are more acceptable than those imposed from outside.

How can public land managers use these and other findings to effectively communicate risk to the public? Perhaps the most important guideline is to know your audience and target safety messages to them.

For example, if the population at risk is adolescent males who use risk taking as a social "proving ground," then messages that emphasize the negative consequences of certain behaviors may be more effective than those which emphasize the danger inherent in those activities. A road sign on a winding stretch of highway in southeastern Washington addresses this audience, saying: "80 percent of the drivers who die on this highway are males, aged 16–26."

If certain park visitors perceive parks to be risk-free, then messages can be targeted to the specific risk in those situations. For example, many visitors think that parks are immune to crime. At Virgin Islands National Park, a sign dispels this myth by showing a couple leaving their belongings on the beach, saying: "But Honey, this is Paradise!" Meanwhile, a hand is shown reaching out of the seaside vegetation, collecting the visitors' camera and other valuables.

The use of powerful imagery can also increase the effectiveness of safety messages. Yellowstone National Park developed a simple but graphic sign showing a person being gored by a bison. The message is clear, and may be

Jim Hughes, USDA Forest Service

Windsurfers in Willamette National Forest, Oregon.

especially appropriate to this area where there are many non-English speaking visitors.

When communicating with risk recreationists, it might be useful to consider that generally, as skill and control increase, perceptions of risk decrease. In these situations, informing participants about risks beyond their control, such as water flow and weather conditions, may be more effective. With visitors who are more likely to encounter risk unintentionally, it may be useful to highlight hazards and suggest actions they can take to avoid them.

Conclusion

Obviously, we cannot protect visitors from every potential hazard in the environment. Not only is this impossible, but it is also undesirable. The adventure of exploring unusual places and trying new and challenging activities is part of what makes national parks and other public lands appealing. We can, however, do our best to inform the public so they can responsibly choose which risks they're willing to take. By knowing who visitors are and how they perceive park environments, we can more effectively target safety messages relevant to them and their concerns. In this way we can encourage safe use of public lands without turning them into the mundane, disciplined environments visitors may be leaving behind when they set off on a vacation adventure.

Mary E. Bean has recently graduated from the University of Idaho. She majored in park and recreation management with special studies in risk management.

Trends in Liability for Visitor Injuries in Public Parks

by Janna S. Rankin

The principles of common law have evolved slowly over the past century and the underlying analysis used to determine negligent behavior has remained relatively constant since TRENDS last reviewed law-related issues in 1984.

Nevertheless, there has been a change in the outcome of many of the recreation cases at the appellate level. Increasingly, the defendant agency is winning. There are two fundamental explanations for this. First, managers of public recreation agencies are becoming more professional and are upgrading park facilities to meet accepted safety standards. Second, defense attorneys are relying upon statutory schemes which relieve the agency of the duty to protect the injured recreation participant.

While this article focuses on park and recreation litigation, a major positive development is the increased attention to and awareness of aggressive risk management practices evidenced by the attendance at NRPA safety schools, continuing education programs and conferences as well as the development of specific risk management programs within agencies and individual park sites. These preventive measures have proven successful in decreasing the number of cases in which the recreation agency has acted in a blatantly careless or reckless manner.

In order to understand the increased effectiveness and reliance on statutory defenses, we must briefly review the basic rules of liability for negligent conduct. Conduct is negligent if it breaks societal standards and injures someone in the process. The defendant must have acted in a way that a reasonably prudent person would not have behaved. In order to prove negligence, the plaintiff must demonstrate that the defendant agency had a duty to protect the recreation visitor, that the defendant breached that duty and that the plaintiff was injured as a result of that breach. If any of these four elements is missing, there is no negligence.

Duty

As the common law developed, the courts would classify an injured recreation visitor as either a trespasser, a licensee or a business invitee to determine whether the agency owed a duty to the plaintiff to protect him or her from foreseeable injuries. Business invitees, generally people who have paid for the agency's recreation services, were owed the highest duty while trespassers were to be protected only if the defendant had knowledge of their activities and did nothing to prevent them. Many states have now blurred these distinctions and courts will generally consider the "totality of the circumstances" to determine whether a duty is owed. Of course, some of the most critical of these circumstances are whether the visitor was in an area where he or she should have been, whether he had ignored a warning sign or was using the facility improperly, whether she had relied upon the advice of the recreation supervisor, and so forth.

Breach

To demonstrate that the defendant agency breached the duty to protect the visitor, the attorney for the plaintiff needs to demonstrate that the agency failed to meet standards generally accepted in the park and recreation field. Evidence of these standards might come from part of a code (e.g., standards for electrical wiring or state fire regulations), common practices (e.g., filling holes in an outfield or installing non-skid surfacing in the golf course locker room), guidelines (e.g., Consumer Product Safety Commission Guidelines for Public Playgrounds) or recommendations (e.g., American Red Cross's recommendations for pool safety, installation recommendations from equipment manufacturers or suggestions from recognized sport governing bodies).

While the deviation from a standard is not evidence of negligence per se, the burden on the defendant to demonstrate that the agency behaved appropriately is significantly increased if it has not followed commonly accepted practices.

Injury

The plaintiff's attorney generally has little difficulty establishing that the park visitor was injured, although there have been some instances where the

Steve Abramowitz, M-NCPPC

Agencies should meet accepted standards or recommendations to protect visitors.

physical injury was minimal but where the plaintiff was able to prove emotional damages, or where the injury was exacerbated by a pre-existing condition. Suppose, for example, the plaintiff was already using crutches due to a broken leg and slipped on soap which had been spilled and left on the community center floor. In this instance, the defendant agency might be liable for the full extent of the injuries—including the required re-setting of the broken leg.

Causal Connection

The final requirement is that there must be a connection be-

tween the injury which the visitor suffered and the agency's breach of duty. This correlation is sometimes called the "but for" connection. But for the breach, the injury would not have occurred. While we acknowledge that every stone thrown into a pond creates a ripple which ultimately affects the universe, the courts require that the connection be reasonably close. Traditionally, this meant that park and recreation agencies would not be liable for criminal behavior of third parties, but a few courts have recently declared that if park muggings (or other criminal behavior) have become so frequent as to be foreseeable, they may hold the agency liable for a failure to protect visitors.

As previously indicated, if any of these requirements isn't met, there will be no liability. One of the ways to remove an element is through legislation which eliminates the duty. That is, Congress or the state legislature may pass a statute which says, for example, if a public agency leaves a wilderness park undeveloped, they will not be liable for any visitor injuries caused by the natural condition of this property.

Suppose a visitor using this wilderness area falls, is injured and sues the agency claiming that it should have provided guardrails or safety devices. The agency will ask the court to grant a summary judgment in favor of the defendant on the basis that they owed no duty to the plaintiff because the statute specifically removed that responsibility. Summary judgment is rendered when either there are no facts in dispute and the judge can simply make a judgment based on the law or when even if the facts are interpreted in the most favorable light to the plaintiff, the result would still be favorable to the defendant.

We shall examine examples of the most significant of these limitations on legal duty which are applicable to the parks and recreation field and the cases which interpret them.

In discussing the cases, we must sound a note of caution. In our legal system judges retain a vast amount of discretion in interpreting the laws and in applying them to the facts of a particular case. Very few cases reach the Supreme Court of the United States for definitive interpretation. With the enormous number of federal district and circuit courts and the parallel judicial structures of 50 states, contradictory decisions and variations in interpretations are inevitable. The most that can ever be said with authority is that the legal interpretation and results in one case may be influential when courts consider similar situations; absolute predictability is not possible.

Discretionary Function Exception to Tort Claims Acts

The Federal Tort Claims Act and similar state statutes allow the government to be sued for the negligent acts of employees. Prior to the enactment of these laws the government was immune from liability. However, Congress and the state legislatures left several exceptions in these governmental immunity waiver laws.

With regard to the federal law this is called the "discretionary function exception, " some states refer to it as "design immunity" or "policy level immunity." The idea is that policy makers should be free to make well-reasoned decisions without fear of litigation. When a lawsuit results from a questionable design or policy, the court will reinstate the immunity and insulate the government agency from liability.

For example, suppose a landscape architect designs a berm in an urban park to separate the tot lot from the softball field. It is possible that this hill might prevent the police from observing a mugging on the back side of the berm, and that the victim of the mugging might bring an action against the park for negligent design. The design immunity exception would generally cause the court to dismiss the action.

The FTCA exception refuses to grant relief for:

> Any claim based upon an act or omission of an employee of the Government exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the

> exercise or performance or failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.
>
> 28 U.S.C. § 2680 (a)

One of the recent cases where this exception has been instrumental in having the action dismissed is *Schieler v. United States* (642 F. Supp. 1310 1986). Here the plaintiff was injured when he was struck by lightning while standing on Moro Rock in Sequoia National Park. Schieler's complaint alleged that the National Park Service negligently failed to provide any warning about the dangers of being struck by lightning. He contended that the failure to warn did not fall within the discretionary function exception to the Tort Claims Act.

The National Park Service argued that the presence or absence of any warnings was a policy level decision. The government presented evidence that the superintendent of Sequoia National Park had established a sign committee and that this committee determined that before they would place a sign there had to be a demonstrated need for it. No need for a sign had been shown for Moro Rock because there was no prior record of lightning striking it.

The District Court Judge wrote:

> The conduct here involved requires a decision, and that decision calls for the exercise of judgment and discretion by administrators and officers of the Park Service. Any attempt by the court to evaluate such a decision would require it to examine Park Service priorities in its administration of the park and question decisions made for policy reasons. . . . A review of the decision . . . would encroach into the decision-making process of the Park Service. The discretionary function exception is intended to protect this process, and the courts are barred from reviewing the same in a tort action.

A similar action against the U.S.D.A. Forest Service was barred by the discretionary function exception in the 1987 case of *Judd v. United States* (650 F.Supp. 1503). In this case a 38-year-old accomplished diver and his friend hiked a quarter of a mile into the Cleveland National Forest to a pond area. The Forest Service knew people used the area for swimming and sun bathing, but there was no evidence of any prior diving or jumping injuries at this location. The Service had not "developed" the area; it was a natural pool formed by run-off water from the mountains. The recreation visitor, Steven Judd, tested the pool for depth and found a deep depression. He and his friend dove from rocks about 10 to 15 feet high into the deep area of the pond before Judd decided to try a dive from a shelf which was 35 feet above the pool. He climbed the rock and attempted a swan dive; his head struck the bottom and he suffered severe injuries. He claimed that if the government had posted a warning sign he would not have attempted his dive.

The court found that the decision not to post warning signs was discretionary. It looked to the Forest Service policy, as embodied in the Forest Service Manual, which requires warning signs to be posted only in "developed" areas of national forests. In other areas the local administrators may use their discretion in deciding whether to post signs warning of dangers.

In *Clem v. United States* (601 F. Supp. 835, 1985), the court held that a National Park Service decision to provide lifeguards and rescue equipment at only a limited number of designated beach areas rather than at all beach areas in Indiana Dunes National Lakeshore was a protected discretionary function. Mr. Clem died in a drowning accident at an unguarded beach when he was caught in a strong undertow. It was the unwritten policy of the park rangers to warn swimmers of dangerous conditions, and the guarded beaches were closed due to the undertow conditions.

Clem's widow brought an action claiming that the Park Service should have issued warnings and that the NPS owed a duty to protect Clem as a business invitee. In reaching its determination in favor of the NPS, the Court considered that the Clems

> made a conscious, deliberate and voluntary decision to go swimming in Lake Michigan at

Mt. Baldy Beach, an unguarded beach. They had . . . viewed a film which contained a safety message about swimming in the Lake. They had read and discussed a sign that clearly stated that no lifeguards were on duty . . .

While this case certainly should not be read to absolve public agencies of any responsibility to provide protective services, it should indicate that much of the concern is in error when professionals state "even when we do everything we can do, the judicial system will still find us liable."

However, the discretionary function exception is not an all-encompassing panacea which reinstates total immunity. In 1987 a tour bus went off a badly eroded road in Denali National Park. Five passengers were killed and many others were injured. The road had originally been 28 feet wide, but at the accident site it had eroded to a width of 14 feet and had soft and dangerous edges.

The passengers and their survivors brought suits against the tour bus operator, ARA Services. After these claims were settled, ARA brought an action against the National Park Service for contributing to the accident by negligently designing, constructing and maintaining the road. The district court entered a summary judgment in favor of the government after it concluded that recovery was barred by the discretionary function exception. On appeal, this decision was reversed.

In *ARA Leisure Services v. United States,* (831 F.2d 193, 1987), the 9th Circuit Court of Appeals agreed that the Park Service's decision to design and construct the road without guardrails was grounded in social and political policy, and thus would be protected by the discretionary function exception. The court cited NPS administrative policies requiring that roads be designed to be "aesthetically pleasing" and to "lie lightly upon the land." However, the court did not agree with the government argument that the failure to maintain the road in a safe condition was a policy level decision.

Essentially, the court said that the Park Service failed to comply with their own standards which required that park roads "conform to the original grades. . . . and be firm and of uniform cross section." This failure could not be excused by the argument that since funds were limited, and the expenditure of these funds involved policy level decisions, the lack of road maintenance was protected as a discretionary function. The court concluded that the government's failure to maintain the road fell into the category of "ordinary 'garden-variety' negligence" and that imposing tort liability would not lead to judicial second-guessing of policy decisions.

Recreational Use Statutes

In 1965 the Council of State Governments published a model statute entitled "Public recreation on private lands: limitations on liability." This model act formed the basis for statutes which have been enacted in almost every state. While the specific language of these laws varies from state to state, each has the overall purpose of encouraging private landowners to open their property for public recreation use without fear of liability.

The statutes generally provide that when landowners allow someone to use their property without charge for recreation purposes, they owe no duty to keep the property safe or to warn of dangerous conditions. There are several common exceptions which reinstate liability: if a fee has been charged, if the landowner has "willfully or maliciously" failed to warn against a known dangerous condition and, in some cases, if the recreation visitor has been "expressly invited" onto the property.

Almost every phrase in these statutes has been the object of litigation. Courts have heard arguments that public agencies should not be included in the statutes' coverage. They have been asked to determine what constitutes a fee or "valuable consideration." Several cases have turned on whether the entire property was open to the public, whether the activity in which the entrant had been engaged at the time of his injury was a recreational activity, whether the statutes violate the

Constitutional rights of the injured participant and whether the statutes apply to an artificially created "trap."

Generally, the courts have construed these statutes broadly and have found that these statutes bar either the entire action or the plaintiff's negligence claim.

An Idaho case will illustrate how these statutes work. On January 2, 1982, Brian Corey was injured while operating a snowmobile in Farragut State Park. The injury occurred when Corey struck a cable which was strung across a path in the park. The State of Idaho had installed the cable in an area which was open for snowmobiling; it was not designated as a closed area. When Corey brought an action against the state, the state moved for a summary judgment citing the Idaho landowner liability limitation statute. (Idaho Code § 36-1604(b)(3))

The Idaho law defines recreational purposes as ". . . hunting, fishing, swimming, boating, camping, picnicking, hiking, pleasure driving, nature study, water skiing, animal riding, motorcycling, snowmobiling, recreational vehicles, winter sports and viewing or enjoying historical, archeological, scenic or scientific sites when done without charge of the owner."

The trial judge granted the motion to dismiss, holding that the state was immune from liability. The Idaho Supreme Court upheld the decision, and said "there can be no question that the landowner liability limitation statute is expressly applicable to the factual situation" here. There was a vigorous dissent which called the opinion a "travesty" and suggested that a situation where a cable "picked off" a vehicle rider with no posted notice might fall into the "willful and wanton misconduct" category.

The question of willful and wanton misconduct was critical in the case of *Von Tagen v. United States,* (557 F. Supp. 256, 1983), where the plaintiff was injured in an automobile accident in Golden Gate National Recreation Area in California. He brought an action alleging that the accident resulted from the government's failure to erect a guardrail or warning sign at a dangerously sharp curve. The government moved for a summary judgment based on California's recreational use statute (Cal. Civ. Code § 846) which states:

> An owner of any . . . property . . . owes no duty of care to keep the premises safe for entry or use by others for any recreational purpose or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to persons entering for such purpose, except as provided in this section.
> . . .
> This section does not limit the liability which otherwise exists (a) for willful or malicious failure to guard or warn against a dangerous condition, use, structure or activity; or (b) for injury suffered in any case where permission to enter for the above purpose was granted for consideration. . . .

The court found that there was no question that at the time of the accident the plaintiff was engaged in recreational use of the park, and that the plaintiff had not paid any consideration to use the area. The court further found that the immunity statute applied to the federal government under the terms of the Federal Tort Claims Act. The only question, therefore, was whether there was "willful or wanton misconduct." District Judge Lynch cited a previous decision which identified the three elements which must be present before a negligent act can be considered willful misconduct:

(1) actual or constructive knowledge of the danger,
(2) actual or constructive knowledge that injury is a probable, as opposed to possible, result of the danger, and
(3) conscious failure to act to avoid the peril.

In this case the plaintiff was able to introduce into evidence reports of seven accidents occurring prior to his crash and six accidents occurring after his mishap. He also submitted experts' evaluations of the accident scene which indicated that the lack of a guardrail, any warning sign, reflectorized delineators or direction arrows violated widely accepted highway safety engineering practice.

The cumulative effect of this evidence was enough to raise a question of whether the government had acted willfully. When there is a material question in issue, the case must go to trial. The summary judgment was, therefore, denied.

The issue of the defendant's knowledge of the danger was also the focus of a recent Michigan case where a six-year-old boy drowned in a public fountain. (*Matthews v. Detroit*, 367 N.W.2d 440, 1985). Here again, the defendant, the City of Detroit, had been granted a summary judgment under the Michigan Recreational Use Act.

On appeal, the plaintiff alleged that the city knew or should have known of the potential harm created by the fountain because it knew that children played on or near the water and because there were no barriers or precautions to keep children from falling.

The appellate court said that even if the city knew that children frequented the fountain, this did not make an injury probable nor did it make the city's indifference imply a willingness that an injury occur. Since municipal knowledge did not rise to the level of willful misconduct, the city was still covered under the recreational use statute.

Specialized Immunity Legislation

Many states have provided other tools for the defense attorney's arsenal. Some jurisdictions have legislation protecting ski area operators from liability resulting from an injury caused by the skier's own actions. Other states have passed laws which relieve various providers of high risk recreation opportunities from liability arising from the risks inherent in these activities. In California, where the state supreme court has held that the recreational use statute does not protect public park and recreation agencies, the legislature passed the following law:

> Neither a public entity nor a public employee is liable for an injury caused by a natural condition of any unimproved public property, including but not limited to any natural condition of any lake, stream, bay, river or beach. (Cal. Govt. Code § 831.2)

Obviously, the litigation will focus on what constitutes a "natural condition" and what constitutes "unimproved" public property. In a 1987 case, (*Mercer v. State*, 197 Cal. App.3d 166), a plaintiff appealed the dismissal of his personal injury lawsuit against the State of California. Here Steven Mercer and two friends rode three-wheel all-terrain vehicles into Pismo State Beach about 1:30 one morning.

The park's natural resources offer a variety of recreational activities including a dune area for off-road vehicles. The dunes' configuration is constantly changed by winds. Although their size and shape may vary from hour to hour, they are commonly characterized by a long, gently sloping side facing the ocean with a steep drop-off side opposite. Mercer was a novice dune rider, and when he reached the crest of the dune he fell 20 to 30 feet down the drop-off side. The fall crushed his spinal cord, causing permanent paralysis from the chest down.

Mercer contended that the governmental immunity did not apply because the state had substantially improved the park by posting signs, setting speed limits, erecting fences, constructing a ranger station at the entrance point and so forth.

In upholding the dismissal of Mercer's claims, the court of appeals acknowledged that the scope of the statutory language was somewhat unclear, but found that

> *to qualify public property as improved, so as to take it outside the natural condition immunity, the improvements must change the physical nature or characteristics of the property at the location of the injury to the extent that it can no longer be considered a natural condition.*

An Orange County court recently relied upon the same statute to dismiss a lion attack suit against the county. Laura Small was five years old when she went on a family outing to Caspers Wilderness Park, a county park east of San Juan Capistrano. She was mauled by a mountain lion near the picnic area and suffered brain damage, was blinded in one eye and has permanent partial paralysis.

Seven months later, another child, Justin Mellon, was mauled by another mountain lion in the same park. The attorney for the second victim said the county did not properly warn visitors of the mountain lion danger in the park.

In dismissing the case the court pointed to the state laws barring lawsuits against government entities that stem from accidents occurring in unimproved areas of public property.

Summary and Conclusion

From the time of the Industrial Revolution right up through the middle of the 20th century, the rules of tort law favored defendants, particularly government agencies. In addition to sovereign or municipal immunity, affirmative defenses such as contributory negligence and voluntary assumption of risk were virtually absolute bars to recovery. The limitations on duty owed to park visitors based upon rigid adherence to categories like "licensee" or "trespasser" also protected defendants.

From about 1960 until 1980, judicial and statutory abrogation of government immunity, substitution of a general standard of "reasonable care under the circumstances" for specific rules of conduct and the modification of contributory fault and assumption of risk defenses resulted in substantially greater number of plaintiff victories. This, in turn, encouraged insurance companies to settle cases for significant amounts.

As demonstrated in this article, the pendulum has at least partially swung the other way. Legislatures have narrowed government liability in a variety of ways; they have also reintroduced limitations on duty owed to recreation visitors.

Perhaps most important at the federal level, many of the judges appointed over the past decade have been politically and fiscally conservative. They tend to be protective of government resources. Still, the liberal trends have not been completely eradicated. Courts and legislatures recognize the need to provide compensation for the seriously injured and their families.

Thus, as the contradictory cases we have discussed illustrate, judicial responses to recreation injuries are often confusing and unpredictable. Judges and lawyers are still trying to sort out the implications of legislation aimed at providing partial protection to recreation providers. As always, the best protection from liability for park agencies is good safety training, adherence to professional standards and a large dose of common sense.

Author's note: While I was completing the final draft of this article, I was notified that Dick Wilburn had died. I have worked with Dick over the past ten years. In fact, Dick Wilburn's professionalism and vision in seeing the close relationship between legal ability and park safety and risk management resulted in my involvement in National Park Service safety training as well as this and several other articles. I will miss him.

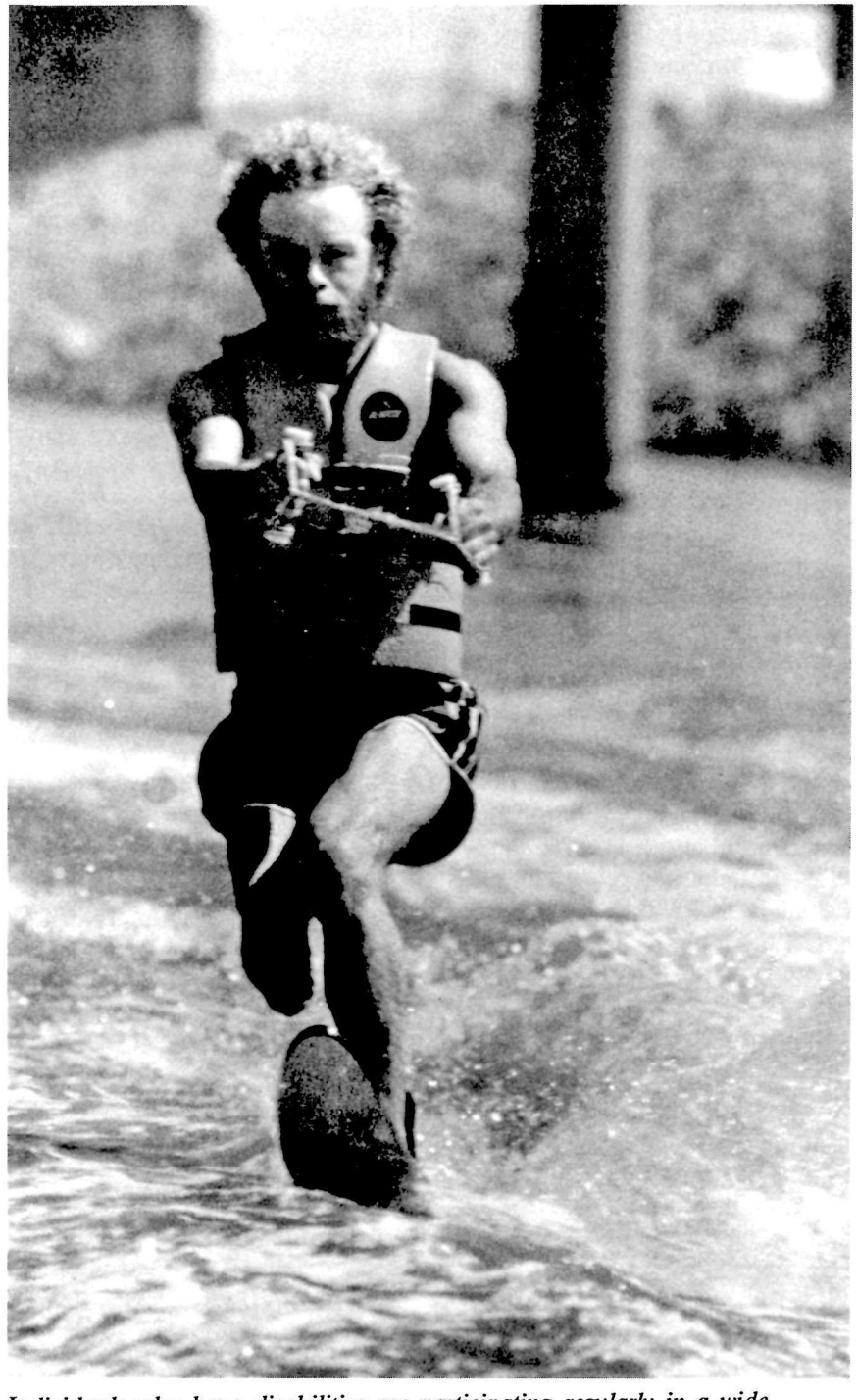
Janna S. Rankin is currently an Associate Professor at San Diego State University where she teaches in the recreation systems management program. Her Bachelor's and Master's degrees were in park and recreation administration, and she worked as a supervisor and an administrator in California and New Jersey prior to entering the teaching field. Janna's doctorate is in law, and she has written The Law of Parks, Recreation Resources, and Leisure Services, *the only book in the field which focuses on all of the legal aspects of park and recreation administration. In addition to her teaching position, Ms. Rankin works as a legal consultant for the National Park Service and conducts a number of training programs for local and state park and recreation agencies.*

Outdoor Recreation for People with Disabilities: A Risk or a Right?

by David C. Park

In July of 1989, Mark Wellman and Mike Corbett succeeded in climbing the 3,569-foot face of El Capitan in Yosemite National Park. The event was covered by ABC News and featured nightly status reports on national news telecasts. What made this event so newsworthy and remarkable was that Mark Wellman, who is employed as a park ranger at Yosemite National Park, also happens to be a paraplegic and scaled the mountain using only his arms and shoulders. It truly was a remarkable feat! It was the first time it had been done by an individual using only his arms, and was a testimony to perseverance and personal dedication to accomplishing difficult goals.

In a larger sense, however, the event was not as remarkable as the news media and most Americans perceived it to be. Individuals who have disabilities are participating regularly in a wide variety of sports and recreation activities. These activities range from organized team sports such as basketball and track, to individual pursuits such as skiing, hang gliding and mountain climbing. Recently, the Paralyzed Veterans of America, a national organization concerned with promoting a better life for paralyzed veterans and other people with disabilities, published a guide to sports and recreation activities. This guide includes brief discussions of over 30 recreation activities in which physically disabled people are actively participating and provides a directory of over 50



National Handicapped Sports

Individuals who have disabilities are participating regularly in a wide variety of sports and recreation activities.

national, state and local organizations that are involved in providing these types of activities for disabled people. In the introduction to the guide, the editors state:

"The wide variety of sports and recreational activities available to you and other persons with a disability demonstrates that having a disability need not limit your ability to enjoy a full and active life. Whether your choice is made for competition, excitement, to let off steam or simply to have fun, you can make sports and recreation an integral part of your life.

Today, the opportunity exists for you to pursue activities to your own level of interest and achievement, from purely recreational all the way to international and Olympic competition!

Two basic similarities exist among the sports and recreational activities described in this brochure. First, the activities are not 'special' programs devised only for persons with a disability—rather they are activities regularly pursued by non-disabled persons to which minimal adaptations have been made to accommodate a disability. All the activities, therefore, can be enjoyed with family and friends.

Second, enjoyment of these activities usually is made possible by equipment which compensates for the disability. Some recent innovations include the mono-ski and hand-powered bicycle. Other activities involve slight modifications to readily available recreational equipment such as kayaks, canoes, sailboats, airplanes and motorcycles. And in competitive wheelchair sports, the wheelchair itself has become high technology sports equipment, with dozens of different models, each as highly developed as any other type of athletic equipment in use today."

National Handicapped Sports

Specially designed wheelchairs open up new areas to wheelchair users.

There are many reasons for the increase in participation by disabled people. As indicated in the PVA Guide book, new technology has certainly had an impact. Devices such as specially-designed sports wheelchairs have significantly increased the ability of wheelchair users to traverse areas that in the past would have been impassable and have enhanced the ability of wheelchair users to participate in athletics such as tennis, basketball and track and field. Other devices have increased the ability of disabled people to participate in other activities such as skiing and water sports.

A second reason for the increase in participation is simply the changing attitudes of society in general toward people who have disabilities, and the corresponding change in the attitude of disabled people toward themselves. The United States and the world have addressed the issue of equal opportunity for disabled people through the efforts of the International Decade of Disabled Persons, established by the United Nations. These efforts have focused on changing the

emphasis of services for persons with disabilities from custodial to one of promoting independence.

The impact of these efforts was succinctly stated in a letter to the editor of *Sports 'N Spokes* magazine, published last year. The author of the letter, a wheelchair user from Canada, was expressing his appreciation for the numerous articles on access to outdoor recreation being published. He commented that over the past two decades substantial efforts had been made to improve educational and vocational opportunities for disabled people and that in large part, these efforts have been successful.

He went on to point out that as disabled people receive better opportunities for education and employment, they become gainfully employed and thus have discretionary income with which to participate in recreation activities. He referred to the area of outdoor recreation as the next "great frontier" for disabled people.

Finally, federal legislation has also provided a significant impact to increased participation in outdoor recreation by disabled people. Two separate federal mandates impact directly. The first is the Architectural Barriers Act of 1968. This law specifically states that any building or facility built in whole or in part with federal funds must be accessible to and usable by physically disabled people. Over the years, it has been established that outdoor recreation facilities such as picnic areas, campgrounds and scenic overlooks are covered by this law. Consequently, much activity has taken place nationally, over the past decade, to develop guidelines for the design of accessible outdoor facilities.

The second federal law, Section 504 of the Rehabilitation Act, is broader in its application to outdoor recreation participation than the Architectural Barriers Act. Section 504 is essentially a civil rights statute which states:

> "No otherwise qualified handicapped individual . . . shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by an Executive Agency. . . ."

This law does not necessarily require that all facilities be made architecturally accessible, but it does require all recreation and park agencies to assure that all programs offered to the public be provided in such a way that disabled people, whether they be physically, visually, hearing or learning impaired, not be discriminated against "solely on the basis of disability condition."

An example of how program accessibility decisions should be made was recently demonstrated at Grand Canyon National Park. To take a concession-operated mule ride into the Canyon is one way a visitor may experience the Canyon. This ride is very strenuous and requires a certain amount of physical strength, stamina and endurance. To some degree, the ride is a high-risk activity.

In the past, the concessioner had prohibited disabled people from participating in this experience. A few years ago, some official complaints were filed charging that Section 504 had been violated. Upon review of these complaints, the National Park Service determined that the arbitrary exclusion of disabled people, solely because of their disabilities, is exactly what is prohibited by Section 504.

On the other hand, the experience is a dangerous one and does require certain skills and abilities. The park and the concessioner, with the assistance of disabled people knowledgeable about horseback riding, analyzed the necessary physical qualifications required to participate successfully in the ride.

Consequently, everyone, including disabled persons, is given information describing the strenuous nature of the ride and the qualifications needed to participate. All riders are told that the concessioner may require them to demonstrate ability before granting final permission. Each prospective rider is asked to review these qualifications and attest to the fact that he or she can meet them.

Once the potential rider signs the statement, he or she is given the opportunity to get onto a

Diana Golden, "Chap Stick Champion."

mule to demonstrate riding ability. The head wrangler still has the authority to deny access if he or she believes the rider has not demonstrated the necessary qualifications, but then the denial would be on grounds other than disabling condition.

It is also significant to note that the number of official complaints charging violations of the laws in park and recreation areas has also increased. Up to 1988, the National Park Service received only a few complaints annually.

At the present time, approximately 30 complaints are in the process of being investigated. These complaints have been filed against state and local recreation agencies who are recipients of federal grants, as well as the National Park Service itself. This increase in complaints not only represents the increased numbers of disabled people participating in recreation but also their increased awareness of their legal right to expect accessibility.

It should also be pointed out that the coverage of these two federal laws is currently in the process of being expanded. Both the Architectural Barriers Act and Section 504 apply only to programs and facilities that utilize federal funds. A new law, "The Americans With Disabilities Act," has been introduced during the current session of Congress and from all reports, should become law within the next few months. This act essentially extends the intent of the two previously discussed laws to all programs and facilities, regardless of whether federal funds are used. The net effect of this is to reinforce the fact that accessibility and equal opportunity to participate in recreation activities is not simply a nice thing to do, but is a legal right.

So what about the issue of risk? Are disabled people more prone to injury while participating in outdoor recreation activities than people who are not disabled? Evidence seems to suggest that recreation managers as well as insurance providers tend to believe that they are. There have been many instances of park managers denying or discouraging disabled people from attempting to participate in outdoor activities. The prohibition against people with disabilities that existed in the past at the Grand Canyon mule ride was based on the belief that they were at a higher risk. Many ski lodges have denied access to disabled skiing enthusiasts and many horseback riding operations have refused to allow disabled riders to participate. In an article entitled "The Right to Risk" published in the Journal of Physical Education and Recreation in 1978, Dr. Carol Peterson stated:

"The frequent response of

recreation leaders, park personnel and other staff in regulatory positions, is to forbid the participation of handicapped individuals in risk recreation. The usual reason for such action is safety. It is ironic that a park ranger would prohibit a troop of well-trained and conditioned handicapped scouts from entering a white water canoe area while minutes before he graciously filled out the permit papers for a boisterous group of college students equipped with cases of beer and large quantities of liquor in sight. The concern for safety has strange ramifications! Staff in all types of recreation facilities need to become aware of the rights of handicapped individuals in regard to the use of public areas. More important, however, they need to understand the abilities of special populations and facilitate their recreational involvement rather than inhibit or prohibit participation."

Greg Lais, *Wilderness Inquiry*

Equal opportunity involves an equal right to experience risk.

This paternalistic attitude toward disabled people still prevails ten years later.

One primary reason given by many service providers for denying access has been that their liability insurance rates would increase significantly if they allowed disabled participants. Investigation reveals that this indeed has happened in several instances. Further investigation, however, also shows that there is an alarming lack of actual facts and statistics to show that disabled people are at a higher risk. Most insurance rates are established by actuarial tables that demonstrate that one segment of a population poses a higher risk than another. Those statistics do not exist to support the assumption that disabled participants are more at a risk than others. Consequently, it could be assumed that the practice of increasing rates, simply because disabled people are involved, is in and of itself discriminatory.

So, is the participation of disabled people in outdoor recreation a risk or a right? The answer is that it is probably both. Many recreation pursuits involve an element of risk. It is, in fact, this element of risk that draws people to the activity in the first place. The essence of the disability movement in the United States, and in the world, is to provide people with equal opportunity. As we begin to understand that disabled people have a legal right to participate in park and recreation experiences, we should also begin to understand that equal opportunity involves an equal right to experience risk. Disabled people are at risk when they participate in risk recreation activities, but no more than any other participants.

There are some indications that society is beginning to accept this. In fact, one of the most remarkable elements of Mark Wellman's ascent of El Capitan was that the staff of Yosemite National Park not only allowed him to attempt the climb, but in fact encouraged him to do it. Hopefully, there is a message in that for all recreation service providers.

David C. Park is Chief, Branch of Special Populations, with the National Park Service in Washington, D.C.

Making the Wildland Firefighter's Job Safer

by Art Jukkala, Bob Hensler and Ted Putnam

Editor's Note:

A major concern of park management is the health and safety of those employees responsible for carrying out the organization's objectives. It is well documented that many of the assignments given to our employees contain high risk/hazardous activities. It is management's role to reduce the risk to the lowest possible denominator through training, administrative controls, procedures and other means of control.

One of the more useful functions available to assist management in this objective is in the research and development of tools and equipment to facilitate the job. The U.S.D.A. Forest Service's Technology and Development Center in Missoula, Montana, is in the forefront of equipment development. Years of study, testing and field application have resulted in many highly beneficial developments that will assist in doing the job right and with a high degree of safety for the employee. The development of specialized equipment to be used in the hazardous role of the wildland firefighter illustrates the Center's role as part of management's responsibility to employees.

Wildland firefighting can be hazardous work. This fact was underscored in dramatic fashion last summer in Yellowstone National Park and other parts of the West. Forest fires were the subject of nightly TV coverage for weeks. Firefighters wearing flame-resistant yellow shirts and green pants became a familiar site to millions of viewers across the country.

George Johnson, USDA Forest Service

Firefighter wearing personal protective equipment.

What was also underscored during this long, hot summer was that flame-resistant clothing, together with the other items of personal protective equipment, performed as designed to allow firefighters to work as safely and as productively as possible in a hostile environment. Despite one of the longest and toughest fire seasons in memory, serious injuries were minimal. Personal protective equipment (PPE) can take some of the credit.

The basic components of the firefighter's PPE system are:

- Flame-resistant shirts and pants
- Fire shelter
- Hardhat
- Flame-resistant gloves
- Safety goggles
- Leather boots and wool socks

Today's PPE system is the result of decisions made in the mid '50s after an analysis of casualty-causing fires during the prior 20-year period. The result has been a continuing effort over the last three decades by the USDA Forest Service's Technology & Development Center in Missoula, Montana, to develop and refine the items that make up the PPE system for federal and many state wildland firefighters.

As the scenes on our TV screens clearly showed last summer, wildland firefighting is often dangerous. Making it safer is not an easy task. The standard approach in making any job safer begins by identifying and assessing the risks to injury and health, then through risk management taking steps to reduce them.

In the more common work setting, risks are reduced or eliminated by one or more of these methods listed in the preferred order of control: (1) engineering to alter or change the work place

environment; (2) administrative control through policies, procedures, etc.; (3) training to acquire knowledge and awareness of hazards; (4) personal protective equipment (PPE).

Unfortunately, engineering is the least feasible method in wildland firefighting which leaves administrative controls, training and PPE. And PPE brings us back to the yellow shirts and green pants. Flame-resistant clothing is a key part of the PPE system. Let's briefly look at the different components of the PPE system and the role each plays in protection against the hazards of wildfire.

Flame-Resistant Shirts and Pants

The Technology and Development Center began work on flame-resistant clothing in 1958. The objective was garments that would offer firefighters protection: (1) against flames, falling embers and coals; (2) when dashing for safety to avoid entrapment; (3) during entrapment without a fire shelter and added protection within a shelter; (4) if involved in an aircraft accident while being transported to or from a fire.

The first step was a shirt treated with a flame retardant chemical. These were worn extensively beginning in 1962. Cotton trousers were field evaluated along with shirts, but because trousers are subject to greater wear, and the treated cotton was not durable enough, flame-resistant trousers did not appear until 1974.

These early shirts were made from an orange fabric. Yellow cotton shirts were introduced in the late '60s after studies showed yellow to be more visible in dark and smoky environments. Also, there were several incidents in which the orange shirts were mistaken for flames and aircraft dropped fire retardant on crews on the line.

Today's yellow shirts and green pants are made of aramid fabric (Nomex). Aramid is woven from a nylon-type fiber designed to withstand high temperatures. It is inherently flame resistant, so the fabric is not treated with flame retardant chemicals. Aramid fabrics are durable and provide good thermal protection. Like most fabrics, aramid burns if exposed to flame, but unlike them, it stops burning when removed. Instead of melting or burning to ash, it forms a char that continues to help protect the skin.

Since introducing the aramid clothing, we have focused our efforts on improving comfort. One disadvantage of aramid fabrics is that they do not wick moisture well, making the garments hot. So we improved the shirt fabric with a more open, thicker weave. It improves evaporative cooling, yet traps air next to the skin to keep the wearer warmer at night. Surprisingly, night firefighting can get very cold, even after a hot summer day.

Fire Shelter

The past four years have proved the fire shelter to be the single most important component of the wildland firefighter's PPE system. The pup tent-like shelter is the only piece of equipment that offers life-saving protection in the event of an entrapment. In 1988, well over 150 fire shelter deployments were made. Many were precautionary in nature or to provide comfort and thermal protection in a non-life threatening situation. However, a number of entrapments were life threatening. In 1988 alone, the shelter is credited with saving nearly 40 lives.

The fire shelter saves lives by reflecting away radiant heat. This means two things: there's a supply of more breathable air inside the shelter, and the shelter gives firefighters a way to protect their airways and lungs from flames and hot gases, the two leading killers in an entrapment.

Development work began on the fire shelter in 1958. Some Forest Service units began using them in 1961. For nearly 20 years, the shelter was optional equipment. Use became mandatory for Forest Service fire crews in 1977 after several firefighters were killed in entrapments the year before. Other federal and many state agencies adopted similar policies soon after. Over the years, the fire shelter has saved more than 300 lives.

Jim Boyd, USDA F.S.

Cut away shows firefighter properly positioned inside fire shelter.

Hardhat

Next to the fire shelter, the hardhat is the most important piece of wildland firefighting PPE. Hardhats have saved many lives and prevented serious injuries by protecting the wearer from falling trees, limbs and rolling rocks.

The literature indicates that about 50 percent of the body's heat is lost through the head, so we recommend hardhats that are cooler and lighter in weight. Special clips are added to attach goggles and headlamps for night firefighting. As wildland firefighters confront more fires in areas where there are structures and associated electrical hazards, class B plastic hardhats, which provide electrical hazard protection, are preferred.

Flame-Resistant Gloves

Reviews of past fire entrapments showed that victims or those burned while attempting to flee entrapment lost fingers if they were not wearing gloves. Also, conventional oil-tanned work gloves burned or shrunk from intense heat. A March 1967 fire safety review team recommended that suitable flame-resistant gloves be developed.

Reports from people entrapped in fire shelters also emphasized the importance of gloves for holding down a hot shelter buffeted by fire-generated winds. And gloves are essential in protecting the firefighter's hands against blisters, scratches, small cuts and minor burns during routine firefighting.

After many material and design changes, the latest gloves appear to meet firefighting requirements. The gloves are full-grain, chrome-tanned leather (previous models were split-grain leather). Full-grain leather is stronger, so the new gloves wear better and last longer. And it allows narrower seam margins to hold stitches, so the gloves are less bulky. Chrome tanning provides excellent flame and shrinkage resistance.

A drawstring wrist closure keeps embers and debris from getting into the gloves. This allows firefighters transported by aircraft to cinch up glove tops for added protection in the event of an accident. And a fire shelter occupant can do the same in an entrapment.

Safety Goggles

A study the Center conducted from 1967 through 1971 showed that eye injuries accounted for about 7 percent of fire suppression injuries. Dust, smoke, brush or branches and hot substances cause most eye injuries. Therefore goggles are an important safety item. Firefighters have been dissatisfied with the goggles available to them, and a recent survey indicated comfortable goggles that won't fog or scratch are one of their greatest needs.

We were assigned the job of finding better eye protection. An extensive market search in 1988 located promising goggles and safety glasses. Performance tests identified the best models. We recently published information on the recommended models. Like all special wildland firefighting PPE, these eye-protective devices are stocked for federal agencies and their cooperators by the General Services Administration (GSA). Refer to the 1989 GSA Wildfire Protection Equipment and Supplies Catalog.

Leather Boots and Wool Socks

Past fire entrapment investiga-

tions have found that good quality leather boots traditionally worn for wildland firefighting provide adequate foot protection. Socks of 85 to 100 percent wool offer added thermal protection. Wool wicks moisture from the skin. This helps keep feet cooler and drier, reducing the chance of blisters, a common firefighting injury.

Most federal agencies require that firefighters wear a lace-type leather boot with at least an 8-inch top. Skid-resistant soles are required, with a lug-type sole preferred. Slips and falls account for many firefighting injuries—one study over a 10-year period indicates that slips and falls cause 17 percent of firefighting injuries. Therefore, good skid-resistant soles are important.

Chain Saw Chaps—Another PPE Item

Since all firefighters don't wear them, we don't include chaps as a component of the basic personal protective equipment system. But chain saws are widely used in firefighting, so a brief look at the chaps is appropriate.

Chain saw chaps were redesigned in 1982 to increase sawyer protection and comfort. The new chaps have an outer shell of 11-ounce Cordura nylon, replacing bulky 15-ounce cotton canvas. Cordura cleans easily, resists tears and abrasions, and keeps the protective pads free of oil better than cotton canvas. The protective pads combine two layers of woven Kevlar with two layers of Kevlar felt. Kevlar is an aramid fiber like Nomex, but with more flame resistance. Moreover, because of Kevlar's cut resistance, it can slow and quickly jam a saw chain before cutters penetrate to the leg. At 2 pounds, the new chaps weigh 40 percent less than the old style and offer 50 percent more protection.

Quick-release buckles make the chaps easy to put on and take off. This is a nice feature for firefighting because the chaps can be easily removed to reduce heat stress when sawing is finished. Leg straps have been relocated to improve fit and minimize snagging. A tool pouch was added to hold a round file, file guide, flat file, spark plug wrench and screwdriver.

New Focus on Smoke

The rationale behind the PPE system largely has been to provide flame protection. But the 1987 fires in northern California and southern Oregon and 1988 fires in Yellowstone focused attention on the health hazards of smoke. In January 1989, the Forest Service Intermountain Research Station and the Johns Hopkins University School of Hygiene and Public Health cosponsored a workshop on the effects of forest fire smoke on firefighters. The workshop objective was to develop a comprehensive study plan for the U.S. Congress and the National Wildfire Coordinating Group.

This plan proposes a variety of efforts ranging from studies of the health effects of smoke to investigations of combustion product characterization and toxicity to respirator adaptation and testing. As an outcome of this workshop, the Center will be initiating a project in FY 1990 on smoke respirators. In another project we will be developing a one-person sleeping tent as part of an engineering control approach to reducing the level of particulate firefighters are exposed to while sleeping.

Keeping Up with Change

The key to managing the risks of wildland firefighting is to continually update the personal protective equipment system that has been developed and refined over the last 30 years. This is a dynamic process because materials and production technology change constantly. By keeping up with this change, personal protective equipment can become an even more effective first line of defense for the wildland firefighter.

Art Jukkala is Program Leader, Fire and Aviation Management/Safety; Bob Hensler is Technology Transfer Project Leader and Ted Putnam is an Equipment Specialist, all with the USDA Forest Service's Technology and Development Center in Missoula, Montana.

Hazardous Waste Management

by Cathy Davidson

On February 24, 1989, three high ranking civilians who worked for the Department of the Army were convicted for illegally storing, treating and dumping hazardous wastes. This was the first time federal officials have been convicted for routinely violating environmental laws. All three men were managers and contended that they were not properly informed of environmental violations and did not intentionally ignore the law. The jury found otherwise.

This article will discuss what actions one needs to take to avoid the mistakes that these three men made. It will also describe legislation concerning the daily management and disposal of hazardous waste (HW), your responsibilities and liabilities as a HW manager and ways to minimize generation of HW.

John D. Hunter, NPS

Hazardous waste storage site, Padre Island National Seashore.

What is a Hazardous Waste?

A waste is any solid, liquid or contained gaseous material that is no longer used, and is either recycled, thrown away or stored until there is enough to treat or dispose of. A waste becomes classified as hazardous if it could cause injury, death or damage or pollute land, air or water.

Hazardous wastes that are regulated are those listed by EPA as hazardous, that exhibit hazardous characteristics (corrosivity, reactivity, ignitability and extraction procedure toxicity) and those substances that are not delisted or excluded from regulation.

If people in your park or recreational area are painting, working on vehicles, applying pesticides or wood preservatives, or using solvents, then your park is probably generating hazardous wastes (HW). You are not alone; 300 million tons of hazardous waste is produced yearly in the United States.

Resource Conservation and Recovery Act

To deal with the problems of managing HW, Congress passed the Resource Conservation and Recovery Act (RCRA) on October 21, 1976, and subsequently amended the act in 1980 and 1984. The agency in charge of enforcing the act is the Environmental Protection Agency (EPA). The goals of this act are to protect human health and the environment, reduce waste, conserve energy and natural resources, and to reduce or eliminate the generation of HW as expeditiously as possible.

The RCRA regulates the management of HW, non-hazardous solid wastes and underground storage tanks. This article will only deal with HW management requirements.

The EPA has a "cradle to grave" philosophy concerning HW. In other words, EPA regulates and tracks HW from their generation, transport, treatment, through its storage and ultimate

disposal. EPA also requires that you assume liability for HW from "cradle to grave."

Hazardous Waste Management

The RCRA regulations that apply to the management of HW are dependent on the amount of total wastes generated. The three types of generators are Conditionally Exempt Small Quantity Generators, Small Quantity Generators (SQG's) and Generators.

One of the factors determining which category you are in is how much acutely HW is being generated. Acutely HW consists of chemicals that are so dangerous in small amounts that they are regulated in the same way as large amounts of HW. Acutely HW consists mainly of pesticides and dioxin containing wastes. Examples of acutely HW are aldrin, arsenic trioxide, copper cyanides, dieldrin and parathion. For a complete listing refer to 40 Code of Federal Regulations (CFR) 261.32 and 261.33.

Conditionally-Exempt SQG's produce less than 100 kilograms (kg) of HW per month and less than 1 kg of acutely HW per month. These generators are exempt from regulation under 40 CFR 262 so long as they do not accumulate greater than 1,000 kg of HW, properly identify their wastes and comply with the less stringent waste treatment, storage and/or disposal requirements of 40 CFR 261.5

Small quantity generators produce between 100 and 1,000 kg of HW and less than 1 kg of acutely HW per month. These generators are subject to most of the requirements of 40 CFR 262 which apply to fully regulated generators, except that they are allowed to accumulate up to 6,000 kg of hazardous waste and to store waste for up to 180 days or 270 days if they must transport HW over 200 miles to a licensed HW facility.

Most parks or recreational areas should fall in the Conditionally-Exempt SQG or SQG categories. If the time or quantity limits given for an SQG are exceeded, your park will be classified as a storage facility. You must then obtain a storage permit and meet all RCRA storage requirements. There is a lot of red tape involved when a site is classified as a storage facility.

Fully regulated generators produce 1000 kg or more of HW or 1 kg or more of acutely HW in any month. They are subject to all requirements of 40 CFR Part 262.

Storage Guidelines

While storing hazardous materials in your park, you should take precautions to prevent accidents from occurring. Safety precautions include:

- Protect all ignitable or reactive wastes from sources of ignition or reaction.
- Clearly mark HW containers with the words "HAZARDOUS WASTE," and the date collection of HW was begun in the container.
- Ensure that HW containers are in good condition and replace leaking ones.
- Never store HW in a container that may rupture, leak or corrode.
- Keep HW containers closed except when filling and emptying the containers.
- Create a buffer zone between offices and storage area.
- Never store HW in the same container that could react together to cause fires, leaks or other releases. Check the Material Safety Data Sheet (MSDS) to find out what materials are incompatible.
- Refer to the MSDS to determine what personal protective equipment should be used when handling a hazardous material and use recommended equipment.
- Do not mix nonhazardous wastes with hazardous ones, since the entire mixture becomes subject to HW regulations.
- Avoid mixing several different HW, since this makes recycling difficult or makes disposal more expensive.
- Avoid spills or leaks of hazardous products. Materials used to clean up a spill or leaks will also become hazardous.

- Train select personnel on how to respond to small spills or leaks. Untrained personnel should leave the area.
- Ensure that all personnel know how to report a spill. Have telephone numbers of responsible parties listed at storage sites.

Reporting Spills

If you have a spill of a hazardous substance in your park or recreational area, you must report it to the National Response Center (NRC) if the spill exceeds set limits or "reportable quantities." If a reportable release occurs and is not reported, the person in charge is subject to a $10,000 fine, a year in jail or both. The reportable quantities for hazardous substances can be found in 40 CFR Table 302.4. The telephone number for the NRC is (800) 424-8802.

Shipping HW Off-Site

Shipping requirements come under RCRA and Department of Transportation (DOT) regulations. It is extremely important to choose a reputable HW hauler and an HW management facility. The hauler will be handling your HW beyond your control, yet you are still responsible for the HW.

Similarly, the HW management facility chosen should be financially sound and have insurance in case of closure. If the HW management facility goes bankrupt, your park could be liable for cleanup costs if the HW is released.

John D. Hunter, NPS

A waste oil storage cabinet at Padre Island NS.

Both the hauler and the facility chosen must have an EPA identification number. Call your state HW management agency or EPA for a list of certified disposal sites. It is also a good idea to check with the Better Business Bureau or the Chamber of Commerce to find out if any complaints have been filed, and to check with the State HW management agency or EPA regional office to see if they know of any problems with a company.

To ship HW off-site, the following steps should be taken:

1. Apply for a U.S. EPA Identification Number if your park generates more than 100 kg of HW in any calendar month. This identification number will go on transportation documents when shipping HW. To obtain an EPA Identification Number, call or write the state hazardous waste management agency or the EPA Regional III office, and request an EPA form 8700-12, "Notification of Hazardous Waste Activity."

2. Place HW in containers acceptable for transportation and make sure they are properly labeled when shipping. Requirements for shipping are found in DOT regulations 49 CFR Part 172. Also check with your state transportation agency to determine if there are any additional regulations. Your HW hauler should be able to provide advice in this matter.

3. Complete an HW manifest that will accompany your

shipment to the HW management facility. The HW manifest is a multi-copy shipping document and may be a state or EPA form. Check with your state transportation agency to determine which form you should use. The HW manifest form is designed to keep track of shipments of HW from the point of generation to the HW management facility. Your park, the hauler and the designated facility must sign the manifest form and keep a copy.

4. Make sure you receive a comeback copy of the manifest from the HW management facility operator to ensure that the HW arrived. You must keep this copy, signed by the hauler and the HW management facility on file for three years. If you do not receive a signed copy from the HW management facility within 30 days, find out why. If the HW management facility does not cooperate, then you should contact the state HW management agency and EPA immediately. Remember, under RCRA you are still liable for the HW even if it is no longer in the park.

Hazardous Waste Minimization

All parks should try to minimize the amount of HW procured and generated. Not only is HW dangerous, it is also extremely expensive to dispose of. The current disposal rates for a 55 gallon drum of HW ranges from $60 to $2000. Ways to reduce generation of HW are:

- Recycle materials whenever possible.
- Buy hazardous materials in small quantities.
- Never buy hazardous materials that cannot be used during one year.
- Do not stockpile chemicals to save money. Minor savings from buying in large amounts is offset by the tremendous cost of disposal should the chemical become a waste material due to new technology, chemical breakdown or inadequate need.
- Buy the least toxic substance that can do the job.
- Obtain a MSDS for all chemicals purchased.
- Purchase items made of the highest percentage of recovered materials.

Responsibilities of the HW Manager

You do have a lot of responsibilities as an HW manager and these responsibilities should not be taken lightly. Do not be like the three Department of the Army civilians. You will be in compliance with RCRA if you do the following:

1. Know what regulations apply to your park.
2. Find out what hazardous materials are used on your park, know how they are used and where they are located.
3. Ensure that HW is properly stored.
4. Make sure your HW is properly disposed of.
5. Ensure that your people know how to handle HW.
6. Ensure that all HW spills are cleaned up.
7. Report releases of hazardous substances to the NRC when appropriate.
8. Generate as little HW as possible.

For More Information Call:

- Your state HW management agency
- Your EPA regional office
- The RCRA/Superfund Hotline, (800) 424-9346
- National Park Service (only): your Regional Office's Hazardous Waste Coordinator

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Cathy Davidson is an Industrial Hygienist with the National Park Service's Branch of Loss Control Management in Washington, D.C.

Is Your Park a Dump?

by Connie Kurtz

On a dark and lonely stretch of highway, a flatbed truck rumbles down a side road. Impact and metal against metal noises are heard as the driver rolls off barrels of spent solvents, waste oil and other toxic chemicals. A few of the barrels are punctured as they fall on rocks imbedded in the ground.

A few weeks later, a park employee comes upon the mess that has become known as a "midnight dump." Immediately after its discovery, the questions arise fast and furious. How dangerous is it? What effects will it have on the environment? What must be done? Who is going to do it? And there is the overhanging issue of, "Who's going to pay for the cleanup?"

Occurrences like midnight dumps, buried toxic waste in landfills/dumps or large emergency spills or releases (as in transportation accidents) can have catastrophic consequences. Soil and surface drinking water contamination can not only seriously injure humans but also endanger the natural resources of the park. Some of these effects can occur miles away from the immediate site as with ground/surface water contamination or airborne plumes of contamination. The effects may also not be readily discernible and may persist for many years after the initial release.

Managers of park and recreation systems must be conversant with the issues and have knowledge about the potential for such occurrences at their sites and be prepared to deal with any such occurrences. The best defense occurs *before* the event, not after. Preplanning, policy development and training all help to ensure that the manager and employee will act to minimize the consequences of a hazardous waste incident.

Garree Williamson, NPS

Garree Williamson, NPS

Krejci Dump at Cuyahoga Valley National Recreation Area, Ohio.

Legislation

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), more commonly known as the Superfund Act, was enacted in 1980 to deal with major emergency spills and releases of toxic materials. Metropolitan newspapers banner these occurrences almost on a weekly basis reporting tractor-trailer accidents involving toxic chemicals that spread over the highways and enter sewer systems. Communities along railways are often evacuated due to rupturing tanker cars in derailment accidents. These incidents endanger both civilian and emergency response crews. Because many urban and remote parks have major transportation corridors running through or adjacent to their areas, these scary scenarios can also happen in the park environment.

The Act also governs toxic waste problems at abandoned sites. Communities have reported incidences of high cancer rates in housing areas built over abandoned dumps where carcinogenic chemicals were found to be leaching from these sites. Many remote parks have created dumps within the parks' boundaries where, in addition to the solid wastes, hazardous wastes like paints, solvents, pesticides, wood preservatives and acid-lead batteries were also disposed. One should also ask what was done with spent chemicals at ecological, curatorial and biological laboratories.

Parks have also acquired toxic waste problems as a result of realty acquisitions or transfers. The park or recreational area may have inadvertently or unknowingly "bought into" a potential CERCLA site.

The park manager must be aware that the liability and responsibility for cleanup rests with the current owner. To complicate matters even more, CERCLA is also retroactive. It governs and regulates all abandoned hazardous waste sites and holds these sites to today's standards, regardless of when they were created. Even if at the time that the site was created it was in full compliance with all laws and standards of the day, if it later proved to have a contamination problem, the site would be regulated under the current CERCLA laws and standards.

The money for the Superfund is obtained from taxes levied on certain chemical feedstocks produced in or imported into this country. It was originally authorized at $1.6 billion in 1980. In 1986, CERCLA was reauthorized under the Superfund Amendment and Reauthorization Act (SARA) and funded at $8.5 billion. The money is used to respond to emergencies, stabilize the sites and to remediate or clean up the abandoned hazardous waste sites.

Unfortunately, federal agencies are ineligible for the Superfund cleanup monies. All funding for cleanup must be obtained through the agency's normal appropriation channels. However, agencies can be "loaned" funding up to $2 million per site for emergency response actions. The emergency response actions contain and stabilize the site until remedial actions can begin. Requirement of an emergency response action is determined by the Environmental Protection Agency (EPA) on a case by case basis.

Reporting Requirements

Immediately following the discovery of an abandoned site or hazardous materials accident, the park must notify the National Response Center (NRC). This center, staffed 24 hours a day by the U.S. Coast Guard, receives reports of major spill/releases and discoveries of abandoned hazardous waste sites by way of a national hotline phone (800/424-8802). The NRC provides immediate response information to the caller. The phone call also sets in motion networking calls to the National Regional, State/Local Hazardous Material Response Teams, as well as affected industry representatives. Failure to notify the NRC of reportable quantity releases or sites can result in severe penalties of $10,000 and/or imprisonment of one year.

Most municipalities will have local hazardous material teams that can quickly respond to emergency spills/releases. However, your park and recreation employees should be properly trained as first responders. This response may be nothing more than to report the incident and keep visitors and employees out of the affected areas until professional help arrives or to have a full response unit outfitted with "moon suits." An evaluation of the potential for such emergencies to occur and the availability of local emergency resources will help the manager make decisions as to the level of involvement that is needed by park personnel. The Occupational Safety and Health Act now outlines specific training requirements for workers involved with hazardous material/hazardous response actions.

Action Requirements for Abandoned Sites

What do you do after you've discovered an abandoned potential hazardous waste dump on your property? For starters, don't panic. There is a procedural process that you can follow. After reporting the site to EPA and to the responsible reporting state agency (remember the penalty for not reporting), the park should conduct a *preliminary assessment* (PA). The PA includes information on the site's past history such as what was its past use, was there any disposal of toxic materials, who did the disposing and are there any past reports or studies regarding the site's hazardous nature. Interviews with park personnel and a visual perimeter/area inspection round out the PA.

PA's can also be done for offsite contamination. That is, contamination coming into the park from outside sources. Rivers and streams often serve as the conduit for these contaminants.

The operant behavior in this phase is to be as snoopy as possible. Find out as much as you can about what went on at this site.

If the PA indicates a likelihood for a potential hazardous waste site, a *site investigation* (SI) is the next step. In this action phase, soil, air and/or ground/surface water samplings and monitorings attempt to characterize the contamination. The contaminants, their concentration and the scope of their effects are ascertained. For park areas, it is important that not only effects to human health are considered but also effects to the park's natural resources. In some cases, the contamination level may be within acceptable ranges for human health but will have a deleterious effect on the flora/fauna.

The results of the PA and the SI are then submitted to EPA for evaluation and ranking. If the site is deemed sufficiently harmful, it is added to the National Priorities List (NPL) which is a listing of the nation's most toxic sites. Once a site is listed on the NPL, the park must conduct a remedial investigation and feasibility study (RI/FS) within six months of listing. If a site is not ranked high enough to make the NPL, the site owner/administrator must self-establish deadlines for remediation.

With all the acronyms flying about, you probably feel like you're reading a bowl of alphabet soup. Hang in there, we're in the home stretch.

Garree Williamson, NPS

Rubber drums pile up at Cuyahoga Valley National Recreation Area.

The RI/FS process investigates, designs, proposes and chooses the ways and means that the cleanup or remediation will be accomplished. It is after this point that remediation of the site can commence.

If this process seems complex and drawn out, it is. In addition, it can be extremely costly. Pre-remedial costs can be as much as a million dollars and take as long as one-and-a-half to two-and-a-half years to complete. Costs for the actual remediation and site restoration is so site specific that it is difficult to "guesstimate." Suffice to say that cleanup costs for most major sites run into the multi-million dollar range.

Cost Recovery Initiatives

Take heart, there is a way to minimize the expenditures. Unless the contamination was caused by the park, there are means by which the site can seek compensation for incurred cost and for natural resource damages. Even though the current owner of the site is ultimately responsible for any remedial costs, CERCLA allows for compensation to be sought from all previous generators of and transporters to the site. Anyone or any company that contributed to the cause of the hazardous waste site can be held liable for its cleanup. The contributor and/or generator is called a potential responsible party (PRP).

The three most important words that ensure the success of cost recovery actions are documentation, documentation and more documentation. It is critical that all records, reports and barrel/product/company identifications be kept from the time

of site discovery through the cleanup and restoration phase. Any costs incurred from site assessments through the cleanup should be kept as well.

Monetary compensation can result from negotiations with the other PRP's or through litigation in court. Compensation for natural resource damages resulting from a shoreline oil or hazardous material spill can be realized through the Natural Resource Damage Assessment Regulation. Because this regulation is relatively new, there has not been many instances for its utilization. Recent oil spills off the coasts of Alaska and Washington will fully use and test this legislation.

Management Planning

Unless you enjoy addressing hazardous waste issues only when they rear up and bite you, today's park and recreation manager must plan and prepare for potential hazardous waste incidences. As a part of any emergency preparedness plan, the manager should consider the following recommendations and incorporate them into existing applicable function areas:

- Know applicable legislation. Because of the potential liability the manager must be conversant with environmental protection legislation.
- Survey the park to identify potential sites. Don't be caught blindsided. As a part of the normal work routine, employees can be asked to notice distressed vegetation, evidence of "midnight dumps" and proximity to major transportation avenues.
- Prioritize known sites. Because of the tremendous costs associated with CERCLA sites, this action is important in order to assist you in setting budget needs and assuring that the most critical site will be addressed first.
- Train and equip employees to meet challenges. Whether you rely on local Haz Mat teams or need to develop an in-park emergency response team, the employees must be adequately trained and prepared. This job is *NOT* for amateurs.
- Investigate future realty acquisition. As the old saying goes, "Don't buy a pig in a poke." An important part of any realty initiative is to look into the potential for the site to have a hazardous waste problem.
- Minimize waste generation and evaluate disposal practices. Thirty years ago no thought was given to the creation of hazardous waste sites when harmful agents were disposed. We are now reaping the effects of those practices. As we begin to clean up the past mistakes, we can also assure that we will not create future problems for the coming generation.

Resources

Because the CERCLA legislation and issues are complex the park manager can rely on the following resources for additional information and guidance:

Garree Williamson, NPS

Krejci Dump at Cuyahoga Valley National Recreation Area, Ohio.

RCRA/Superfund Hotline: National toll-free 800/424-9346; Washington, D.C. Metro area 202/382-3000; M–F 8:30 a.m. to 4:40 p.m. (EST). Hotline specialists answer regulatory and technical questions and provide documents on all aspects of RCRA/CERCLA programs.

State environmental regulatory and federal EPA offices: Look in phone book for nearest office.

National Park Service (only): Contact each Regional Office's Hazardous Waste Coordinator for information.

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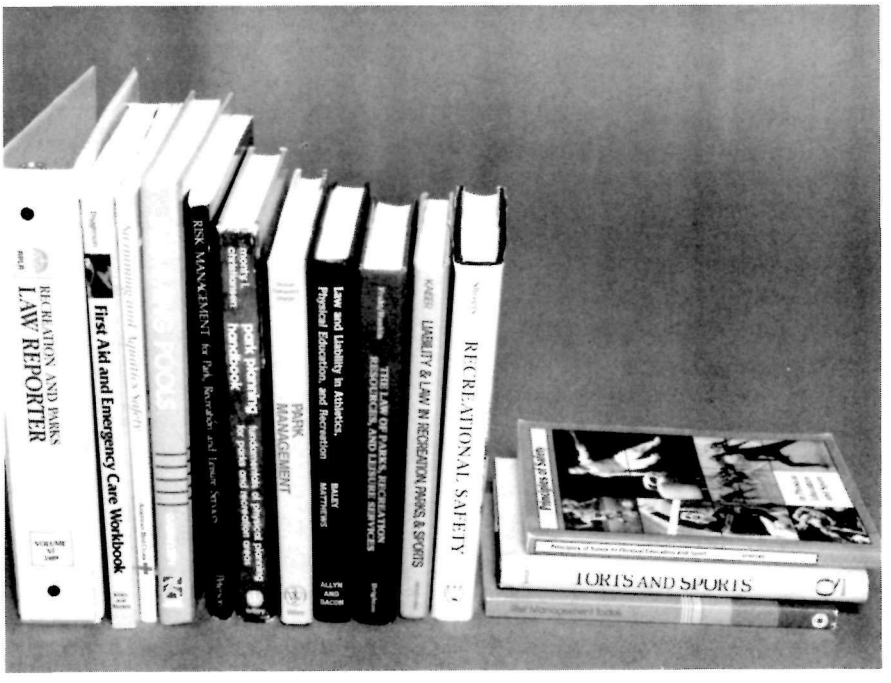
A Basic Risk Management Library

by Seymour M. Gold, Ph.D., AICP

One important aspect of a risk management program is a basic library of current information that describes the standard of care for the design and management of facilities and programs. The dramatic increase in lawsuits against park and recreation agencies is a compelling reason to invest in a basic reference library, or know what books to request on inter-library loan from any city, county, state or university library.

There is no excuse now for not knowing or applying the current standard of care as described in the professional literature and practice of parks and recreation. There was a time in this field when information on risk management was relatively scarce and difficult to obtain, but this era is over. Since 1980, a generation of authoritative books has become available from most libraries or bookstores.



Seymour M. Gold, AICP

The Standard of Care

User safety in public park and recreation areas is an essential part of the mission of public park and recreation agencies. Professionals have a legal obligation to know and apply the current standard of care in providing recreation opportunities. The standard of care is commonly defined by the professional literature, standards or guidelines where they exist, legal precedent and what experts describe in legal proceedings as the reasonable or ordinary practice for a particular situation.

Public agencies have a responsibility and duty to establish a safety program that will support a policy of providing safe recreation areas, facilities and programs (Peterson 1987). One critical component in a safety program is compliance with national, state and industry standards or guidelines for the design, management and supervision of all land, facilities and programs under the jurisdiction of a public agency. This includes the duty to inspect, inform, warn, maintain, supervise, patrol and enforce regulations.

The logic of this approach to risk management is based on the premise that public recreation areas and programs are established to "promote the public health, safety and general welfare and provide opportunities for the pleasurable use of leisure time" (Leighty 1973). "Users can expect to play (visit) in a safe place that meets their behavioral needs. They can also expect that all due care has been taken to prevent foreseeable accidents, injury or death" (Gold 1983).

The Basic Library

Following is a list of 30 selected books that represent a range of common park and recreation facilities and programs. Each book contains a bibliography that describes a more detailed and in-

depth treatment of the topic. Most of safety problems and remedies described in this basic library have an advanced treatment in the research and professional literature or publications of national sports or governing bodies (NRPA 1984).

The estimated cost of this basic library is $1,000. A more restricted selection could reduce the estimated cost to approximately $750. This is a cost-effective investment for a public agency relative to their liability exposure and the cost of litigation and legal settlements or judgments.

For example, attorney fees are commonly $150 per hour and legal judgments often exceed $250,000 for common playground accidents. One recent study of liability claims in California described "an average of $21,181 in cash payments to victims, not to mention the cost in staff time and legal fees to the agency" (Augustine 1986). Other studies by the California League of Cities indicate ". . . 160 cities are now facing a combined potential liability amounting to more than $176 million for cases that may come to trial in 1985–86 (Augustine 1986). Many cities now face potential payments for law suits which exceed their annual budgets.

Summary

There has never been a better time or justification for public agencies to develop and update their risk management library. In an information age and litigious society there is no excuse for not being aware of the standard of care for providing park and recreation facilities and programs.

Professionals should decide if they want to be part of the problem or part of the solution. They can make a commitment to knowing what the standard of care is for specific facilities and programs as described in the literature of this field. The development of a basic risk management library is a place to begin.

Seymour M. Gold, AICP

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